REPORT OF THE
VIRGINIA COMMISSION ON YOUTH

COLLECTION OF EVIDENCE-BASED TREATMENT MODALITIES FOR CHILDREN AND ADOLESCENTS WITH MENTAL HEALTH TREATMENT NEEDS

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

REPORT DOCUMENT NO. 252

COMMONWEALTH OF VIRGINIA
RICHMOND
2005

COMMONWEALTH of VIRGINIA

Commission on Youth

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December 1, 2005

TO: The Honorable Mark R. Warner, Governor of Virginia

and

Members of the Virginia General Assembly

The 2003 General Assembly, through Senate Joint Resolution 358, requested the Virginia Commission on Youth to update biennially information on "empirically based information concerning effective treatment modalities and practices for children." This resolution followed the publication of *House Document 9* (2003), which included the first edition of the *Collection of Evidence-Based Treatment Modalities for Children and Adolescents with Mental Health Treatment Needs*. In addition to publication of the paper document, the Commission on Youth, by mandate, disseminated the *Collection* electronically and publicized it widely as an Internet resource.

Enclosed for your review and consideration is the report, including the biennial update of the *Collection, Second Edition*, which has been prepared in response to this request. The Commission received assistance from all affected agencies and gratefully acknowledges their input into this report.

Respectfully submitted,

Harry B. Blevins
Chairman

Delegate Mamye E. BaCote
Delegate Robert H. Brink
Miss Vanessa Cardenas

Delegate Mark L. Cole
Mr. Glen Francis
Senator R. Edward Houck

Senator Yvonne B. Miller
Delegate Robert Tata
Mr. Marvin H. Wagner

MEMBERS OF THE VIRGINIA COMMISSION ON YOUTH

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R. Edward Houck
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I. Authority for Study

Section 30-174 of the *Code of Virginia* establishes the Virginia Commission on Youth and directs it to "... study and provide recommendations addressing the needs of and services to the Commonwealth's youth and their families." This section also directs it to "...encourage the development of uniform policies and services to youth across the Commonwealth and provide a forum for continuing review and study of such services."

The 2002 General Assembly, through Senate Joint Resolution 99, directed the Virginia Commission on Youth to coordinate the collection of empirically-based information to identify the treatments recognized as effective for the treatment of children, including juvenile offenders, with mental health treatment needs, symptoms and disorders. The resulting publication entitled *Collection of Evidence-based Treatments for Children and Adolescents with Mental Health Treatment Needs* (*Collection*) was compiled by the Commission on Youth with the assistance from an advisory group of experts pursuant to Senate Joint Resolution 99. The *Collection* was published in *House Document 9* and presented to the Governor and the 2003 General Assembly.

To ensure that this information remained current and that it reached the intended audience, the 2003 General Assembly passed Senate Joint Resolution 358, which required the Commission to update the *Collection* biennially. The resolution also required the Commission to disseminate the *Collection* via web technologies. The dissemination of the *Collection* was reported in *Senate Document 5* (2004). The first biennial update of the *Collection,* as specified by Senate Joint Resolution 358, concludes with this report.

II. Members

The authorizing legislation required the Commission on Youth to biennially update the Commission's publication on the treatments recognized as effective for the treatment of children, including juvenile offenders, with mental health treatment needs, symptoms and disorders. Members of the Commission on Youth are:

Senator Harry B. Blevins, Chair, Chesapeake
Delegate Mamye E. BaCote, Newport News
Delegate Robert H. Brink, Arlington
Delegate Mark L. Cole, Fredericksburg
Delegate William H. Fralin, Jr., Roanoke
Senator R. Edward Houck, Spotsylvania
Senator Yvonne B. Miller, Norfolk
Delegate John S. Reid, Vice Chair, Chesterfield
Delegate Robert Tata, Virginia Beach
Miss Vanessa Cardenas, Arlington
Mr. Glen Francis, Portsmouth
Mr. Marvin H. Wagner, Fredericksburg

III. Executive Summary

The *Collection of Evidence-based Treatments for Children and Adolescents with Mental Health Treatment Needs* (*Collection*) was compiled by the Commission on Youth with the assistance from an advisory group of experts pursuant to Senate Joint Resolution 99 (2002). The *Collection* was published in *House Document 9* in late 2002.

The 2003 General Assembly, through Senate Joint Resolution 358, directed the Virginia Commission on Youth to update the *Collection* biennially. The Commission on Youth designed this initiative to be assisted by an advisory group, which was to provide overall guidance, including direction and philosophy for the update of the *Collection.* The *Collection* published herein is the second edition of a document initially mandated through Senate Joint Resolution 99 (2002).

Based on an analysis of the data collected and input received from interested parties, as well as feedback from the Advisory Group, the following recommendations were made.

CONTINUATION OF STATEWIDE DISSEMINATION EFFORTS

Recommendation 1

By letter, request all agencies in the Secretariat of Health and Human Resources, the Secretariat of Public Safety, and the Secretariat of Education post the second edition of the *Collection* to their respective web sites to cost-effectively and efficiently facilitate access to this information.

EXPANSION OF STATEWIDE DISSEMINATION EFFORTS

Recommendation 2

By letter, contact local mental health providers, as well as local juvenile justice officials to inform them of the second edition of the *Collection*, as well as how such information may be accessed. Such contact will be via the Virginia Association of Community Services Boards, the State and Local Advisory Team through the State Executive Council, and through the Department of Criminal Justice Services.

Recommendation 3

By letter, request that the Virginia Bureau of Insurance, the Virginia Medical Society, the Psychiatric Society of Virginia, and the Virginia Academy of Pediatrics inform their members the second edition of the *Collection,* as well as how such information may be accessed.

ENCOURAGING THE USE OF EVIDENCE-BASED TREATMENTS

Recommendation 4

By letter, request that the Secretary of Health and Human Resources, as well as the Department of Juvenile Justice, the Department of Education, and the Department of Criminal Justice Services, continue to encourage the use of the evidence-based treatments in programming and development of any future projects.

Recommendation 5
Direct the Commission on Youth, in conjunction with the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services, to convene a statewide conference with the express purpose of identifying and communicating to behavioral health care professionals evidence-based practices for children and adolescents with mental health disorders. To plan for this conference, the Commission shall organize a Conference Planning Committee comprised of representatives from all of the Commonwealth's child-serving agencies. An update on the progress of the conference plan shall be reported to the Commission on Youth prior to the 2007 General Assembly session.

Recommendation 6
By letter, request the Department of Mental Health, Mental Retardation, and Substance Abuse Services to include information regarding evidence-based treatment modalities and practices recognized as effective for the treatment of children, including juvenile offenders, in upcoming conferences or trainings, as applicable.

SCHOOL-BASED DISSEMINATION OF EVIDENCE-BASED TREATMENTS
Recommendation 7
By letter, request that the Virginia Department of Education inform school divisions of the second edition of the *Collection* so that it may be utilized by guidance offices, school-based health offices, and school special education services.

IV. Study Goals and Objectives

The study mandate establishing the goals of this study was set forth in Senate Joint Resolution 358 (2003), which directed the Virginia Commission on Youth to update the *Collection* biennially. The authorizing legislation is provided in Appendix A. To fulfill the study mandate, the following goals were developed by staff and approved by the Commission in 2003:

1. Re-convened the SJR 99 Advisory Group as specified in the study mandate to determine how best to update the *Collection*;
2. Established the parameters and limits of study, including disorders/illnesses and treatments to be addressed;
3. Determined the intended audience;
4. Identified and examined sources of evidence-based research, including effective models for replication (national, state, and local models); and
5. Developed recommendations for the continued dissemination of the *Collection.*

V. Methodology

In updating the *Collection*, the Commission employed several distinct research and analysis activities.

A. ADVISORY GROUP

The Commission re-convened the original Advisory Group to determine the best method for updating the *Collection.* In accordance with the original resolution[1], the Advisory Group included state and local representatives from the Departments of Mental Health, Mental Retardation and Substance Abuse Services, Social Services, Medical Assistance Services, Juvenile Justice, Education, Health, the Office of Comprehensive Services, private providers, parents and consumers. Additional members were invited to participate to strengthen this effort. The Advisory Group membership list is provided as Appendix B

The Advisory Group was asked to assume the following responsibilities:

- Review included mental health disorders, additional disorders to be added, and other issues to be discussed;
- Identify and examine sources of evidence-based research, including recent sources that have emerged since the initial publication date;
- Review each revised section of the *Collection* prepared by staff and offer suggestions or comments;
- Evaluate treatments to determine whether they should be included; and
- Collect and organize the information into written format.

The Advisory Group convened once during the course of the study. At this meeting, the Advisory Group identified, refined, and prioritized the issues of this effort. The remaining work was carried out through electronic and telephone communication.

B. RESEARCH AND LITERATURE REVIEW

Because there is a growing research base in this field, research in the area of children's mental health is still becoming established. The field of evidence-based medicine is continuing to evolve, thus frequent review of emerging research, clinical trials, and other studies is essential.

In seeking to update the *Collection*, Commission on Youth staff, assisted by the Advisory Group, utilized current materials available. This update was based on review of literature and publications on children's mental health treatments from November 2002 to August 2005.

The *Collection* was updated to reflect these more recent findings. As determined in the initial compilation of the *Collection,* the Advisory Group asserted that the scope of this study be limited to evidence-based treatments and/or promising treatments for mental disorders for children and adolescents contained in the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV).* At the request of the Advisory Group, information on maladaptive behaviors was also included. Other features added are a comprehensive glossary, a listing of commonly-used acronyms, information on provider licensing requirements, and a section on antidepressants and suicide.

Given the breadth of the disorders addressed in the *Collection* and the abundance of emerging data in this field of study, Commission staff relied both on Internet and library sources. The Advisory Group maintained that the use of meta-analyses of peer-reviewed

[1] Senate Joint Resolution 99 (2002)

studies would be the preferred method for locating the sources of information. In reviewing this qualitative data, staff gave priority to published studies documenting controlled trials that had undergone rigorous peer review.

In the computer search, various search terms were employed referring to different aspects of child and adolescent mental health. A comprehensive analysis of studies conducted on child mental health treatments were examined. The web-based search identified countless articles which were reviewed for pertinence. A library search of mental health journals yielded further studies. Literature was discarded when it was not peer-reviewed and the treatments discussed were neither promising nor evidence-based. Research also was conducted on other states and their service delivery mechanisms for providing mental health services to children. Service delivery strategies and models outlined by the federal government were also reviewed and included.

VI. Background

Nationally and in Virginia, there has been an increase in attention paid to children's mental health disorders. Family members, practitioners, and researchers have become aware that mental health services are an important and necessary support for young children who experience mental, emotional, or behavioral challenges.

The Commonwealth of Virginia and its localities have spent millions of dollars to purchase services in order to address the emotional and behavioral problems of children and adolescents in Virginia. However, there is no system in place to measure the quality or effectiveness of care received. To date, the most significant approach to address this is the adoption of evidence-based treatments. Evidence-based treatments are those services that have been scientifically proven to improve outcomes. Several states are encouraging the use of evidence-based treatments to better enhance the value of publicly-funded services.

The 2002 General Assembly, through Senate Joint Resolution 99, directed the Virginia Commission on Youth to coordinate the collection and dissemination of empirically-based information that would identify the treatment modalities and practices recognized as effective for the treatment of children, including juvenile offenders, with mental health treatment needs, symptoms and disorders. This initiative originated from recommendations made to the 2002 General Assembly by the Virginia Commission on Youth as part of a two-year study of Children and Youth with Serious Emotional Disturbance Requiring Out-of-Home Placement and by the Joint Committee Studying Treatment Options for Offenders with Mental Illness or Substance Abuse Disorders *(House Document 23, Senate Document 25*, respectively, 2002). The resulting publication entitled *Collection of Evidence-based Treatments for Children and Adolescents with Mental Health Treatment Needs* (*Collection*) was compiled by the Commission on Youth with assistance from an advisory group of experts pursuant to Senate Joint Resolution 99. The *Collection* was published in *House Document 9* and presented to the Governor and the 2003 General Assembly.

To ensure that this information remained current and that it reached the intended audience, the 2003 General Assembly passed Senate Joint Resolution 358, which required the Commission to update the *Collection* biennially. This initiative originated from recommendations made to the 2002 General Assembly by the Virginia Commission on Youth regarding the initial publication of the *Collection.* The Advisory Group indicated that this information would quickly lose value if it were not updated on a regular basis. The Advisory Group suggested that the Commission on Youth update the *Collection* biennially so that it would reflect the most recent research regarding evidence-based mental health treatments for children and adolescents. The resolution also required the Commission to disseminate the *Collection* via web technologies. The dissemination of the *Collection* was reported in *Senate Document 5* (2004).

The Commission on Youth submitted an interim summary to the 2005 General Assembly to report the progress made in updating the Collection, as mandated. The first biennial update of the *Collection,* as specified by Senate Joint Resolution 358, concludes with this report.

This second edition of the *Collection* seeks to benefit professionals, communities, parents, and other entities or individuals working with children with mental health treatment needs by providing them with a collection of research on evidence-based treatment modalities. The information contained herein is strictly for informational purposes only and is not designed to replace the advice and counsel of a physician or mental health provider. The Commission on Youth makes no representations regarding the suitability of the information contained herein for any purpose.

The recommendations which follow are offered to further the effort of encouraging the use of evidence-based treatments in serving children and youth in Virginia.

VII. Findings and Recommendations

Continuation of Statewide Dissemination Efforts

Findings

The field of mental health is multi-disciplinary, with a diverse service system. Today there are a multitude of theories about which treatments work best, making it is very difficult for service providers to make informed choices. It is imperative that treatments for mental health disorders be examined based on clinical research in order to ascertain whether they are effective. In the past, many decisions with important consequences have been uninformed by quality research findings. This form of decision-making lacks accountability. Evidence-based practices offer practitioners a different decision-making process, according them the satisfaction of staying on top of research findings and a means of making decisions that are publicly accountable.

Evidence-based treatments have been developed with the express purpose of improving the treatment of child and adolescent mental health disorders. As evidence is linked to practices that have proven effectiveness, policy must adequately encourage the use of these services.

Recommendation 1

By letter, request all agencies in the Secretariat of Health and Human Resources, the Secretariat of Public Safety, and the Secretariat of Education post the second edition of the *Collection* to their respective web sites to cost-effectively and efficiently facilitate access to this information.

Expansion of Statewide Dissemination Efforts

Findings

The development of evidence-based treatments does not necessarily mean that they will be employed. Evidence-based treatments have not been widely adopted by clinicians in the field. The primary reason for this is that clinicians are not aware of the treatment models that are classified as evidence-based. Dissemination of information about evidence-based treatments from a research setting to actual clinical practice is a vital step to ensure that clinicians learn about them. Without such dissemination efforts, only clinical researchers will be aware of evidence-based treatments and the public will not benefit from these psychotherapeutic advances. Promoting and improving access to information about evidence-based treatments is an appropriate method of encouraging their use. Continuing education is another method to disseminate evidence-based treatments to seasoned clinical providers. The failure to educate practitioners about evidence-based treatments may result in a lack of availability of these treatments

Recommendation 2

By letter, contact local mental health providers, as well as local juvenile justice officials to inform them of the second edition of the *Collection*, as well as how such information may be accessed. Such contact will be via the Virginia Association of Community Services Boards, the State and Local Advisory Team through the State Executive Council, and through the Department of Criminal Justice Services.

Recommendation 3

By letter, request that the Virginia Bureau of Insurance, the Virginia Medical Society, the Psychiatric Society of Virginia, and the Virginia Academy of Pediatrics inform their members the second edition of the *Collection*, as well as how such information may be accessed.

Encouraging Use of Evidence-Based Treatments

Findings

One of the major goals outlined in the Surgeon General's National Action Agenda, as well as the President's New Freedom Commission on Mental Health, is the continued development, dissemination, and implementation of scientifically-proven prevention and treatment services in the field of children's mental health. Other action steps include increasing the research on proven treatments, practices, and services developed in the laboratory to assess their effectiveness in real-world settings. The evaluation of model programs that can be disseminated and sustained in the community is also emphasized. Promotion of private and public partnerships to facilitate this dissemination is crucial. Both of these reports indicate that there is a growing gap between knowledge and practice and between what is known through experience and what is actually implemented in many public mental health systems across the country.

Recommendation 4

By letter, request that the Secretary of Health and Human Resources, as well as the Department of Juvenile Justice, the Department of Education, and the Department of Criminal Justice Services, continue to encourage the use of the evidence-based treatments in programming and development of any future projects.

Recommendation 5

Direct the Commission on Youth, in conjunction with the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services, to convene a statewide conference with the express purpose of identifying and communicating to behavioral health care professionals evidence-based practices for children and adolescents with mental health disorders. To plan for this conference, the Commission shall organize a Conference Planning Committee comprised of representatives from all of the Commonwealth's child-serving agencies. An update on the progress of the conference plan shall be reported to the Commission on Youth prior to the 2007 General Assembly session.

Recommendation 6

By letter, request the Department of Mental Health, Mental Retardation, and Substance Abuse Services to include information regarding evidence-based treatment modalities and practices recognized as effective for the treatment of children, including juvenile offenders, in upcoming conferences or trainings, as applicable.

School-based Mental Health Dissemination

Findings

The President's New Freedom Commission on Mental Health indicated that schools must become partners in mental health care because schools are where children spend a majority of their day. Every day, more than 52 million students attend over 114,000 schools in the United States. When combined with the six million adults working at those schools, almost one-fifth of the population passes through the nation's schools on any given school day (New Freedom Commission). Recommendations contained within this report address the need for greater collaboration between schools and parents, local providers, and local agencies to ensure that consistent state-level leadership and collaboration between education, general health, and mental health systems.

Both Section 504 of the Rehabilitation Act of 1973 and the Individuals with Disabilities in Education Act (IDEA) require schools to follow specific procedures to meet the educational needs of children with disabilities. Children who are impaired by mental health disorders often have a diminished capacity to learn and must be adequately accommodated in the school setting in order to receive the benefits of educational services. Accountability provisions in the federal No Child Left Behind statute suggest the urgent need for schools to gather evidence and inform policymakers of the positive academic outcomes that result from their activities as mental health service providers. Moreover, a sense of student "connectedness" to schools has been found to have positive effects on academic achievement and to decrease risky behaviors (American Academy of Pediatrics, 2004).

Recommendation 7

By letter, request that the Virginia Department of Education inform school divisions of the second edition of the *Collection* so that it may be utilized by guidance offices, school-based health offices, and school special education services.

VIII. Acknowledgments

In addition to the individuals who served on the Advisory Group, the Virginia Commission on Youth extends its appreciation to the following agencies and individuals for their assistance and cooperation on this study:

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2003 SESSION

ENROLLED

SENATE JOINT RESOLUTION NO. 358

Directing the Virginia Commission on Youth, or its successor in interest, to make empirically based information concerning effective treatment modalities and practices for children available through the Internet. Report.

Agreed to by the Senate, February 4, 2003
Agreed to by the House of Delegates, February 13, 2003

WHEREAS, upon the recommendations of the Virginia Commission on Youth's Study of Children and Youth with Serious Emotional Disturbances Requiring Out-of-Home Placement, House Joint Resolution No. 119 (2000), and the Committee Studying Treatment Options for Offenders with Mental Illness or Substance Abuse Disorders, Senate Joint Resolution No. 440 (2001), the Virginia Commission on Youth was directed to study treatment options for offenders with mental illness or substance abuse disorders, pursuant to Senate Joint Resolution No. 99 (2002); and

WHEREAS, Senate Joint Resolution No. 99 (2002) also directed the Virginia Commission on Youth to coordinate the collection and dissemination of empirically based information that identifies effective treatment modalities and practices for children, including juvenile offenders with mental health treatment needs, symptoms, and disorders; and

WHEREAS, to accomplish its work, the Commission appointed representatives to a special study committee, the SJR 99 Advisory Group, to study effective treatment modalities for children with mental disorders, and the Advisory Group met four times to receive public comment from consumers, family members, advocates, criminal justice professionals, treatment providers, academic faculty, and other experts; and

WHEREAS, in addition to the SJR 99 Advisory Group, the Commission convened a smaller clinical group, which met seven times to provide specialized expertise and guidance on the substantive aspects of the collection of evidence based treatment modalities for children and adolescents with mental health treatment needs; and

WHEREAS, the members of the SJR 99 Advisory Group and Clinical Group have acquired considerable expertise in the treatment needs of children with mental health disorders, and noted that nationally and in Virginia, increased attention has been given to children's mental health and the development of systems of care for children with serious emotional disorders; and

WHEREAS, family members, practitioners, and researchers have become increasingly aware that mental health services are an important and necessary support for young children and their families who experience mental, emotional, or behavioral challenges; and

WHEREAS, child and adolescent mental health has emerged as a distinct area for service delivery, drawing on the philosophies and practices that characterize other childhood fields, such as early intervention; and

WHEREAS, according to estimates by the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services, each year more than 75,000 children experience the disabling symptoms of serious mental illness or emotional disturbance; and

WHEREAS, there has been a mounting interest in evaluating and developing empirically supported treatments for children in response to the noted prevalence of these problems with children; and

WHEREAS, the Commonwealth and its localities spend a substantial amount of money each year to provide mental health and substance abuse treatment services to children and adolescents, and the lack of information regarding the effectiveness of such services results in failed treatments and wasted resources; and

WHEREAS, over the past 30 years, there has been a movement calling for improvement in the "quality of evidence" in studies that claim to benefit children; and

WHEREAS, current emphasis on evidence-based practices for mental health treatments indicates that such practices promote effective use of resources, improve the clinician's knowledge, and allow for the identification of health care methods that have been evaluated for effectiveness; and

WHEREAS, increased awareness of mental health issues, the demand for the best medical treatment at affordable prices, and emphasis on evidence based practices are reasonable and justifiable consumer responses that may provide cost savings; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, that the Virginia Commission on Youth, or its successor in interest, be directed to make empirically based information concerning effective treatment modalities and practices for children available through the Internet. The Commission shall seek the assistance of the SJR 99 Advisory Group, the Secretary of Health and Human Resources, the Secretary of Public Safety, and the Secretary of Education in posting, maintaining, and biennially updating this information. Such information shall include effective, empirically based, treatment modalities and practices for children, including juvenile offenders with mental health treatment needs, symptoms, and disorders; and, be it

RESOLVED FURTHER, That agencies of the Secretariat of Health and Human Resources that deliver services to children, the Department of Education, and the Department of Juvenile Justice shall also post this information on their respective websites, provide for the dissemination of the information in as efficient and cost-effective manner as possible, and ensure access to the information by consumers, family members, advocates, mental health policy makers, and other interested persons.

The Virginia Commission on Youth, or its successor in interest, shall submit to the Division of Legislative Automated Systems an executive summary and report of its progress in meeting the directives of this resolution no later than the first day of the 2004 Regular Session of the General Assembly. The executive summary and report shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

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Senator of Virginia

The Hon. Robert Tata
Delegate of Virginia

COLLECTION OF EVIDENCE-BASED TREATMENT MODALITIES FOR CHILDREN AND ADOLESCENTS WITH MENTAL HEALTH TREATMENT NEEDS

2nd Edition

Virginia Commission on Youth

Virginia General Assembly

Richmond, Virginia

2005

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Disclosure Statement

The information contained herein is strictly for informational and educational purposes and is not designed to replace the advice and counsel of a physician or mental health provider. The Commission on Youth makes no representations regarding the suitability of the information contained herein for any purpose.

Introduction

Background of Children and Adolescents' Mental Health

The recognition that children and adolescents suffer from mental illness is a relatively recent occurrence. Throughout history, childhood was considered a happy period. Children were not thought to suffer from mental disorders or emotional distresses, due to the notion that they were spared the stresses that plague most adults (American Psychiatric Association, 2002). It is now well recognized that these disorders are not just a stage of childhood or adolescence, but are a result of genetic, developmental and physiologic factors.

Research conducted in the 1960s has revealed that children also suffer from mental disorders (American Psychiatric Association, 2002). It was not until the third edition of the *DSM* (the *Diagnostic and Statistical Manual of Mental Disorders*) of the American Psychiatric Association in 1980 that child and adolescent mental disorders were assigned a separate and distinct section within the classification system (National Institute of Mental Health, 2001). The development of treatments, services and methods for preventing mental disorders in children and adolescents has also gradually evolved over the past several decades.

The National Alliance for the Mentally Ill (NAMI) defines mental illness as a disorder of the brain that may disrupt a person's thinking, feeling, moods, and ability to relate to others (NAMI, 2005). Mental disorders and mental health problems appear in families of all social classes and backgrounds. However, there are children who are at greatest risk due to other factors. These include physical problems, intellectual disabilities (retardation), low birth weight, family history of mental and addictive disorders, multigenerational poverty, and caregiver separation or abuse and neglect (U.S. Department of Health and Human Services, 1999).

Table 1

Risk Factors Related to Children's Mental Health

- Biological Influences
- Psychosocial Influences
- Family and Genetic Factors
- Stressful Life Events
- Childhood Maltreatment
- Peer and Sibling Influences

Source: Austin/Travis County Community Action Network – Prescription for Wellness, National Institute of Mental Health, 2000.

Woodruff et al. (1999) have indicated that, to date, child and adolescent mental health has emerged as a distinct arena for service delivery, drawing on the philosophies and practices that

characterized other childhood fields, such as early intervention. With the increased attention given children's mental health and the development of systems of care for children with serious emotional disorders and their families in the last two decades, mental health is emerging as a new focus in the field of early childhood (Woodruff et al.). Family members, practitioners, and researchers are becoming increasingly aware that mental health services are an important and necessary support for young children who experience mental, emotional, or behavioral challenges, as well as for their families.

Prevalence of Mental Disorders among Children and Adolescents

According to the President's New Freedom Commission on Mental Health, childhood is a critical time for the onset of behavioral and emotional disorders (President's New Freedom Commission on Mental Health, 2003). According to estimates compiled by the Center for Mental Health Services, 11 percent of children in the United States have at least one significant mental illness that is accompanied by impairment in home, school or peer contexts (U.S. Department of Health and Human Services, 2001).

The following statistics are attributed to InCrisis (2005). According to InCrisis, based on the 2000 U.S. Census Report and the MECA Study (Methodology for Epidemiology of Mental Disorders in Children and Adolescents), 8.4 million of U.S. children aged 9 to 17 have had a diagnosable mental or addictive disorder associated with at least minimal impairment. This translates to a prevalence of almost 21%, or one out of five children. Based on these estimates, 4.3 million youth suffer from a mental illness that results in significant impairments at home, at school, or with peers. Thus, there are 2 million children in the United States, or five percent, who experience extremely severe functional impairments. Table 2 includes information on the prevalence of specific disorders in older children and adolescents.

Table 2

Children and Adolescents
Ages 9 to 17
with Mental or Addictive Disorders*

Based on MECA Sample

Disorders*	Prevalence
Anxiety disorders	13.0%
Mood disorders	6.2%
Disruptive disorders	10.3%
Substance use disorders	2.0%
Any disorder	20.9%

*Disorders include diagnosis-specific impairment and Child Global Assessment Scale <or=70 (mild global impairment).

Source: Shaffer, as cited by InCrisis, 2005.

Federal regulations also define a sub-population of children and adolescents with more severe functional limitations, known as "serious emotional disturbance" (SED) (InCrisis, 2005). The term "serious emotional disturbance" is used in a variety of federal statutes in reference to children under the age of 18 with a diagnosable mental health problem that severely disrupts their ability to function socially, academically, and emotionally (InCrisis). The term does not signify any particular diagnosis. Children and adolescents with SED number approximately five to nine percent of children ages 9 to 17 (Friedman, as cited by InCrisis).

In Virginia, the state's Department of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS, 2003) estimates that each year more than 75,000 children experience the disabling symptoms of serious mental illness or emotional disturbance (DMHMRSAS). Using 2000 Census data, these prevalence rates were applied to Virginia's population data to extrapolate the estimated prevalence of children suffering from serious emotional disturbance. The prevalence of serious emotional disturbance among children and adolescents is estimated to be between 80,017 and 97,801 (DMHMRSAS). Of these youth, between 44,455 and 62,237 have serious emotional disturbance with extreme impairment (DMHMRSAS).

Meeting the Need for Treatment

Acknowledgment of children's and adolescents' mental health needs has prompted further study of the specific disorders that plague this group, as well as the interventions utilized for treatment. Increased activity in this area can be directly attributed to the 1999 Surgeon General's Report *Mental Health: A Report of the Surgeon General.* This report includes a chapter on children and adolescents and is the first such report to reference mental health. A follow-up effort was released one year later, entitled *A Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda.* This publication set the tone for policy and research for children's mental health.

The Surgeon General's Report outlines the importance of mental health in children and the view that the treatment of mental disorders should be a major public health goal. In the National Action Agenda, the Office of the Surgeon General asserts that three steps must be taken to improve services for children with mental health needs: improving early recognition and appropriate identification of disorders within all systems serving children; improving access to services by removing barriers faced by families; and closing the gap between research and practice, ensuring evidence-based treatments for children (U.S. Department of Health and Human Services, 1999).

The Surgeon General's Report also specifies the need for utilizing scientific evidence for mental disorders and describes a system plagued by treatment barriers, including stigma, discriminatory health insurance practices and the unavailability of appropriate services. Other guiding principles are that 1) families should be involved as full participants in all aspects of the planning, delivery and evaluation of services and supports and 2) treatments should be sensitive and responsive to racial, ethnic, linguistic and cultural differences. Other important features include improving or remedying environmental factors that put children at risk for developing mental, emotional or behavioral problems.

Another federal initiative that is closely aligned to the philosophy and findings set forth in the Surgeon General's Report is the 2001 National Institute of Mental Health's *Blueprint for Change: Research on Child and Adolescent Mental Health.*

Although the awareness of children's mental health issues has evolved, knowledge about treating disorders is still emerging. According to the American Psychiatric Association (APA) (2002), 12 million American children suffer from mental illness; however, only one in five receives treatment (APA). In 1999, as reported by Jenson (2002), the Office of the Surgeon General indicated that only 30 percent of all children with a mental or emotional disorder were receiving treatment. Only one in three to five children receive any specialty mental health services. For children meeting the criteria for serious emotional disturbance, school systems are the only provider of services for 50 percent.

The information cited in the following paragraph is attributed to the NIMH's Preventing Child and Adolescent Mental Health Disorders Meeting Summary (2004). There has been little research conducted that estimates the burden of mental illness in children and adolescents. In 1998, the direct costs for the treatment of child mental health problems (both emotional and behavioral) were approximately $11.75 billion or $173 per child (Sturm et al., Ringel & Sturm, as cited by the NIMH, 2004). This study pointed out that one of the many reasons why national health expenditures for child/adolescent mental disorders are difficult to estimate is that mental health services are delivered and paid for in the health, mental health, education, child welfare, and juvenile justice sectors and that no comprehensive national datasets exist in this area. Further, indirect costs associated with mental illness (i.e., future lost wages because of lower educational attainment) were not included in the study. However, this important study noted that child and adolescent preventive interventions have the potential to reduce significantly the economic burden of mental illness, in that preventive services reduce the need for mental health and connected services. Such interventions can also improve school readiness, health status, and academic achievement, as well as reducing the need for special education services (National Institute for Health Care Management, 2005). Additionally, an increase in the benefits of positive developmental outcomes, such as educational attainment and economic productivity, along with a decrease in welfare dependency, also increase societal savings (National Institute for Health Care Management).

Without appropriate treatment, childhood mental health disorders can escalate. Seventy-four percent of 21 year olds with a diagnosed mental health disorder were reported to have had prior difficulties (InCrisis, 2005). Untreated childhood mental health disorders may also be precursors of school failure, involvement in the juvenile justice system, and/or placement outside of the home. Other serious outcomes include destructive, ambiguous, or dangerous behaviors and mounting parental frustration. The resulting cost to society is high in both human and financial terms. Discovering a child's serious emotional disturbance early and ensuring that the child receives appropriate care can break the cycle (President's New Freedom Commission on Mental Health, 2003).

The efforts of the Office of the Surgeon General encourage further testing and refining of programs in a real-world context. A preventive and developmental approach to children's mental health problems must be taken. While many programs try to provide coordinated care for children with mental health needs, the children's mental health system remains splintered. The

principle that mental health is an essential part of children's health is emphasized throughout their report.

Challenges to Ascertaining Effective Treatments

Until recently, most research on mental health treatment has focused on adults. However, researchers are starting to focus on mental health disorders in treatment, ascertaining what is normal and abnormal, compared with stages of childhood development (Grayson, 2004). Goals of such research include prediction and prevention of developmental problems that may lead to mental illness in children (Grayson). Identifying key risk factors is crucial in determining what increases a child's chances of developing mental health disorders. When treated appropriately, children with mental health disorders can recover from those disorders and successfully control the symptoms so that they do not become disabled as adults (Grayson).

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Additional Resources/Organizations

American Academy of Child and Adolescent Psychiatry
http://www.aacap.org/clinical

National Alliance for the Mentally Ill (NAMI)
http://www.nami.org/helpline

National Institute for Mental Health (NIMH)
http://www.nimh.nih.gov/publicat/violence.cfm

Technical Assistance Partnership for Child and Family Mental Health
http://www.tapartnership.org

U.S. Department of Health and Human Services
Mental Health: A Report of the Surgeon General
http://www.surgeongeneral.gov/library/mentalhealth/chapter3/sec6.html

ROLE OF THE FAMILY IN TREATMENT PROGRAMS

The involvement of family members in child and adolescent services is crucial to successful treatment outcomes (Kutash & Rivera, 1995; Pfeifer & Strzelecki, 1990). The effectiveness of services for children and adolescents is believed to hinge less on the particular type of treatment provided than on the participation of the family in planning, implementing, and evaluating the services. Research indicates that, for children with serious mental health problems, the more the family participates in planning services, the more likely the family members are to feel that their child's needs are being met (Koren et al., 1997) and that they have control over the child's treatment (Curtis & Singh, 1996; Thompson et al., 1997). Furthermore, family participation promotes an increased focus on families, the provision of services in natural settings, a greater awareness of cultural sensitivity, and a community-based system of care. There is also a growing body of research that has found that family participation improves the delivery of services and as well as their outcomes (Knitzer et al., 1993).

Nevertheless, there is a growing body of evidence indicating that children from vulnerable populations (children of single mothers, children who live in poverty, and minority children) who exhibit the most serious problems are also the most likely to terminate their treatment early (Kadzin & Mazurick, 1994). Additional research is necessary to determine the factors that contribute to this early termination. In recognition of this problem, however, it is important for mental health providers to ensure that these families are actively recruited and engaged in the services that the child receives in order to maximize the potential for successful outcomes.

This goal is complicated, however, by the fact that both families and providers may be confused and hesitant about the role that family members should play in treatment efforts. As a result, they often are not incorporated to the extent that would be most beneficial to the child. In an attempt to combat this problem, researchers have identified six broad roles that families should play in the treatment process. Members of the family should act as contributors to the environment, recipients of service, partners in the treatment process, service providers, advocates, and evaluators and researchers (Friesen & Stephens, 1998). It is important that family members assume each of these roles in order to provide the effective support network that is necessary for the child's continued improvement.

Freisen & Stephens (1998) outline these six roles for families:

Contributors to the Environment – Family members are the key component of the environment in which a child resides. Consequently, treatment providers often try to identify ways in which the behavior and interactions between family members influence the child's emotional and behavioral problems. With the assistance of the treatment provider, family members should consider ways to improve the home environment and the relationships in the family in order to provide the child with the most stable, supportive environment possible. In addition, family members should seek

external support from their extended family and members of the community in order to reduce the stress of raising a child with emotional or behavioral difficulties.

Recipients of Service – Family members are also an important part of the therapeutic process. Service providers often focus on the family unit as a whole, creating interventions and strategies that target the health of the entire family. These interventions are intended to assess the strengths and weaknesses that exist within the family structure, to enhance the well-being of parents and other family members, and to help families locate support mechanisms in the community. The provider also assists family members in developing the skills necessary to support the special needs of the child. Services may include supportive counseling, parental training and education, development of coping skills and stress management techniques, respite care, parental support groups, transportation, and financial assistance.

Partners in the Treatment Process – Family members also serve as equal contributors in the problem-solving process. They should work with treatment providers to identify the goals of treatment and to plan realistic strategies to achieve these goals. Additionally, family members should play a key role in implementing these strategies to ensure that the treatment goals are met. When performing these functions, caregivers should not be afraid to ask questions and to voice their opinions and preferences. It is crucial that they are fully informed and that their preferences are considered in all treatment decisions.

Service Providers – The treatment process is incomplete without the direct services provided to the child by family members. They are responsible for providing emotional support and information to the child and other family members, and for filling in the gaps in the services being received by the child. Furthermore, they often coordinate the services being received by the child by requesting, convening, and scheduling meetings, and transporting the child to appointments. It is a crucial role, the importance of which cannot be understated. Parents and caregivers need to remain vigilant and involved in all aspects of the child's treatment. This includes keeping all follow-up appointments, becoming knowledgeable about any prescribed medications, and keeping track of all treatments that have been tried unsuccessfully.

Advocates – Family members often serve as the child's only voice in the mental health system. They should therefore actively advocate for the child in order to ensure that he receives the appropriate services, and should voice any concerns regarding undesirable practices and policies. There are several local, state, and national organizations that can assist parents and caregivers in these efforts, allowing them to serve as part of a larger voice in the community.

Evaluators and Researchers – It is important that families participate in research and evaluation activities so that their opinions can be heard regarding which treatments and services are most beneficial and convenient. The input of family members is crucial to ensure that all children receive services that are efficient and effective. While much of this research requires the involvement of the family for a significant length of time, the input of caregivers and other family members is extremely important.

Families play important supporting roles in combating mental health disorders. Although the child is the most important focus of treatment, family members can help by offering support, and encouragement, and by creating a favorable environment. Family members can help their child while they are receiving treatment by recognizing and praising small achievements, modifying expectations during stressful periods, measuring progress on the basis of the improvements made, and being flexible, while trying to maintain a normal routine (Psychiatry 24x7.com, 2005).

The following information is attributed to the Substance Abuse and Mental Health Services Administration (SAMHSA) (2000). Families must recognize that, while they are obtaining services for their child, they are the experts in understanding the following:

- how their child responds to different situations;
- their child's strengths and needs;
- what their child likes and dislikes; and
- what has worked and not worked in helping their child.

Families are ultimately responsible for determining what services and supports their child receives. Thus, families must communicate to service providers their child's strengths and weaknesses, as well as their priorities and expectations. Family members must also inform their service provider as soon as they realize that treatment is not working so that appropriate modifications can be made (Substance Abuse and Mental Health Services Administration, 2000). It is crucial to remember that children are different and their needs are also very diverse.

These recommendations also hold true for children who come in contact with the juvenile justice system. Family involvement is particularly critical for these youth to ensure positive outcomes (Osher & Hunt, 2002). It is imperative that families remain involved so they provide information on the child's diagnosis and treatment history, use of medications, the families' ability to participate in treatment, special circumstances that affect their child, and their child's education history and status (including whether the child is enrolled in special education) (Osher & Hunt). Ideally, families should remain involved at each stage of the system so they can be involved in decision-making and treatment (Osher & Hunt). Families and juvenile justice officials must cooperate to ensure that all have mutual responsibility for the child's outcomes (Osher & Hunt).

Families must remain actively involved in all aspects of their child's mental health treatment. Without family involvement, it is extremely difficult for service providers to ensure that the gains achieved by the child in treatment are maintained and solidified. Moreover, the combined efforts of service providers, family members, and advocates are necessary to ensure that the services provided in the community effectively meet the needs of all children and families.

It is important that parents and caregivers understand the results of any evaluation, the child's diagnosis, and the full range of treatment options. If parents are not comfortable with a particular clinician, treatment option, or are confused about specific recommendations, they should consider a second opinion.

The following guide to parents and caregivers was developed by the American Academy of Child & Adolescent Psychiatry.

Questions that Parents or Caregivers Should Ask About Treatment Services

Before a child begins treatment, parents should ask the following:

- Does my child need additional assessment and/or testing (medical, psychological etc.)?
- What are the recommended treatment options for my child?
- Why do you believe treatment in this program is indicated for my child? How does it compare to other programs or services which are available?
- What are the advantages and disadvantages of the recommended service or program?
- What will treatment cost, and how long will it take?
- How much of the cost is covered by insurance or public funding? Will we reach our insurance limit before treatment is completed?
- How will my child continue education while in treatment?
- Does my child need medication? If so, what is the name of the medication that will be prescribed? How will it help my child? How long before I see improvement? What are the side effects which commonly occur with this medication?
- What are the credentials and experience of the members of the treatment team?
- How frequently will the treatment sessions occur?
- Will the treatment sessions occur with just my child or the entire family?
- How will I be involved with my child's treatment?
- How will we know if the treatment is working? What are some of the results I can expect to see?
- How long should it take before I see improvement?
- What should I do if the problems get worse?
- What are the arrangements if I need to reach you after-hours or in an emergency?
- As my child's problem improves, does this program provide less intensive/step-down treatment services?
- How will the decision be made to discharge my child from treatment?
- Once my child is discharged, how will it be decided what types of ongoing treatment will be necessary, how often, and for how long?

Source: American Academy of Child & Adolescent Psychiatry, 2000.

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Additional Resources/Organizations

Center for Effective Collaboration and Practice*
888-457-1551
http://cecp.air.org

Federation of Families for Children's Mental Health
703-684-7710
http://www.ffcmh.org

Florida Mental Health Institute
813-974-4661
http://www.fmhi.usf.edu

National Alliance for the Mentally Ill* (NAMI)
703-524-7600
http://www.nami.org

National Mental Health Association* (NMHA)
703-838-7529
http://www.nmha.org

National Resource Network on Child and Family Mental Health Services
202-408-9320
http://www.wbgh.com

National Technical Assistance Center for Children's Mental Health*
202-687-5000
http://www.dml.georgetown.edu

Research & Training Center on Family Support and Children's Mental Health
800-628-1696
http://www.rtc.pdx.edu

U.S. Department of Education
Office of Special Education Programs*
202-205-5507
http://www.ed.gov/about/offices/list/osers/index.html?src=mr

U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration (SAMHSA)
National Mental Health Information Center*
Child, Adolescent and Family Branch, Center for Mental Health Services
800-789-2647
http://www.mentalhealth.samhsa.gov/child

*Spanish services are available.

EVIDENCE-BASED TREATMENTS

Overview

The field of mental health is multi-disciplinary, with a diverse service system. Today there is a multitude of theories about which treatments work best, making it is very difficult for service providers to make informed choices. It is imperative that treatments for mental health disorders be examined, based on clinical research, in order to ascertain whether they are effective. Detailed study of mental health treatments allows for greater acceptability of the intervention, better replication in different settings, and greater specificity for trainees (Christophersen & Mortweet, 2001). Interventions that have strong empirical support are referred to as "evidence-based" treatments.

Evidence-based, or empirical, treatments are interventions for which there is consistent scientific evidence showing that they improve client outcomes (National Association of State Mental Health Program Directors Research Institute, Inc. Center for Evidence-Based Practices, 2000). In the field of children's mental health science and service delivery, the term *evidence-based* refers to a body of knowledge, obtained through carefully implemented scientific methods, about either the prevalence, incidence, or risk for mental disorders or the impact of treatments or services on mental health problems (National Institute of Mental Health [NIMH], 2001). It represents the quality and soundness of the scientific evidence regarding questions about etiology, distribution, or risk for disorders or about outcomes of care for children with mental health problems (NIMH). In the past, many decisions with important consequences have been uninformed by quality research findings. This form of decision-making lacks accountability. Evidence-based practices offer practitioners a different decision-making process, according them the satisfaction of staying on top of research findings and a means of making decisions which are publicly accountable. Evidence-based practices enable service providers to identify and utilize "best practices" in treatment (New York State Office for Mental Health, 2001).

In order for treatments to be considered evidence-based, they must be consistent with the characteristics of the evidence-based guidelines developed by the NIMH, highlighted in the Surgeon General's Report on Mental Health (1999) and outlined by Burns (1999):

- At least two control group design studies or a large series of single-case design studies;
- Minimum of two investigators;
- Use of a treatment manual;
- Uniform therapist training and adherence;
- True clinical samples of youth;
- Tests of clinical significance of outcomes applied;
- Both functioning and symptom outcomes reviewed; and
- Long-term outcomes beyond termination.

Recent debate has focused on the degree of support required for determining which interventions are of value in treating specific disorders (Lonigan et al., 1998). Table 1 shows the two classifications of research studies on treatments.

Table 1

Efficacy vs. Effectiveness

Effective (or well-established) treatments are those which have beneficial effects when delivered to heterogeneous samples of clinically referred individuals treated in clinical settings by clinicians other than researchers.
Efficacious (or clinical utility) studies are directed at establishing how well a particular intervention works in the environment and under the conditions in which treatment is typically offered.

Source: Lonigan et al., 1998.

Most efficacy studies are directed at establishing whether a particular intervention works and whether the research for the trial is conducted under tightly controlled condition (Lonigan et al., 1998). Interventions identified as efficacious can later be subject to effectiveness trials.

Distinguishing between these two classifications is significant because the evidence is frequently ambiguous. This may be because the evidence is preliminary, rather than well-established. In addition, treatments may be newer, and their long-term effects, still unclear. Assessments of the effectiveness of a treatment may vary and the patient's other medical conditions must be taken into account when considering what is an effective treatment.

The report of the President's New Freedom Commission on Mental Health outlines the need to promote evidence-based practices (2003). Goal Five outlines the need for advancing evidence-based practices by using dissemination and demonstration projects and by creating a public-private partnership to guide their implementation (President's New Freedom Commission on Mental Health). Moreover, the report discusses the need to improve and expand the workforce which provides evidence-based mental health services and supports. The report asserts that the U.S. must have a more effective system to bring scientific discovery to service providers, consumers, and families.

One of the major goals outlined in the Surgeon General's *National Action Agenda,* is the continued development, dissemination, and implementation of scientifically proven prevention and treatment services in the field of children's mental health. Other action steps include increasing the research on proven treatments, practices, and services developed in the laboratory in order to assess their effectiveness in real-world settings. The need to evaluate model programs which can be disseminated and sustained in the community is also emphasized. Promotion of private and public partnerships to facilitate this dissemination is crucial. Unfortunately, the report indicates that there is a growing gap between knowledge and practice and between what is known through experience and what is actually implemented in many public mental health systems across the country.

Benefits of Evidence-based Treatments

"The best care results from the conscientious, explicit, and judicious use of current best evidence and knowledge of patient values by well-trained experienced clinicians" (Corrigan, 2001). Evidence-based treatments allow patients, clinicians and families to see the difference between alternative treatment decisions and to ascertain what best treatment approach facilitates successful outcomes (Donald, 2002). Treatments that are evidence-based and research driven can complement a clinician's experience. Evidence-based medicine has emerged as an invaluable method of informing clinical and policy decisions about the numerous faces and aspects of healthcare. Evidence-based medicine provides data for questions which do not have intuitive answers or for those items which may do "more harm than good" (Donald). It has significantly aided clinicians in the decision-making process by providing a fair, scientifically rigorous method of evaluating treatment options.

Evidence-based medicine has also assisted professional bodies in developing clearer and more concise working practices, as well as establishing treatment guidelines and practices. The accumulated data for these treatments support their consideration as first-line treatment options (Nock et al., 2004). With literally hundreds of treatment approaches available, it is difficult for clinicians to select the most appropriate and effective intervention (Nock et al.). Professional accountability and technical complexity are two issues currently facing the medical community.

Over the past decade, medicine has come under increased scrutiny. Evidence-based medicine is considered a necessary tool for treating patients in a period in which demands for effective treatment have increased (Donald, 2002). Evidence-based medicine emerged from the notion that decisions about the care of individual patients should involve the conscientious and judicious use of current best evidence (Fonagy, 2000). Use of evidence-based medicine can be advantageous in that it brings all players in the medical industry together in the decision-making process. This can ultimately reduce conflict and even potentially reduce litigation.

The current emphasis in evidence-based medicine for mental health treatments is on promoting effective use of resources and simultaneously allowing for improvements in clinician's knowledge base (Fonagy, 2000). Ethically, the strongest argument in support of this practice is that it allows the best-evaluated methods of health care to be identified.

Another driving force in the utilization of evidence-based medicine is the potential for cost savings (Fonagy, 2000). With rising awareness of mental health issues and a demand by purchasers to know they are obtaining the best treatment for the best price, emphasis on evidence- based practices is both practical and justified. Few people have time to visit libraries and evaluate best practices. Evidence-based medicine provides a structured process for clinicians and patients to access information on what is effective. Treatment interventions produce the intended or expected results.

Limitations of Evidence-Based Treatments

Negative reactions also have emerged due to the assessment of the practices surrounding evidence-based medicine and the utilization of evidence-based treatments. Currently, there are several obstacles to evidence-based decision-making.

One criticism pertains to the vast amount of information available to clinicians. The rapid emergence of data regarding evidence-based treatments has made it difficult for clinicians to both access and disseminate (Burns et al., 1999). While deluged with unstructured information, clinicians and decision-makers alike are able to identify few procedures or systems to enable them to find quickly and accurately the necessary information to address treatment concerns. Burns et al. state

> Few people have time to visit libraries and no one has time to read, let alone prioritize and store, the thousands - even millions - of articles and books on healthcare that might one day be useful to them. Journals containing useful information are too numerous for most decision-makers to subscribe to, and may be written using too much medical jargon for many people to follow easily.

Another criticism relates to the fact that the evidence may be preliminary, rather than well-established, thus the treatments may be so new that their long-term effects are not yet known. Accordingly, assessments of the effectiveness of a treatment may vary across studies, depending on the population studied, the questions asked, or the methodology employed (Rodwin, 2001). Even when an area is carefully studied, there frequently is significant uncertainty and vagueness about what treatment is the most effective. In addition, the benefits and limitations of a particular treatment vary depending upon the child's other medical conditions. In these instances, there may be concessions between the effectiveness of the treatment and safety/quality of life issues (Rodwin).

In utilizing evidence-based treatments, clinicians need to be re-trained, first in using the science-based treatments and, second, in making them more usable for other practitioners (Burns et al., 1999). Despite the documentation of the efficacy of these treatments, these treatments have not been widely incorporated by training programs or practicing clinicians (Addis & Krasnow, as cited by Nock et al., 2004). The authors indicate, "...the progression from effective treatments to their implementation and dissemination into real-world practice settings is through largely uncharted scientific territory." Efforts to disseminate knowledge to stakeholder groups or implement evidence-based interventions have often failed partly due to their poor fit with the target audience or setting context. The issue of "poor fit" must be examined, along with a variety of issues, before evidence-based interventions can be effectively employed.

The variable quality of research findings makes it difficult for clinicians and policy makers to discriminate between them. Many of the studies utilized in evidence-based medicine have excluded very important variables such as training, staff turnover, minimal family involvement and co-morbidity of conditions (Burns et al., 1999). Another argument made against evidence-based treatments is that they have been developed and tested in well-controlled research settings and may not be effective in actual clinical settings (Nock et al., 2004). Many unfavorable beliefs about the usefulness of evidence-based treatments beyond research settings emerge from the notion that these treatments must be administered rigidly without "...variation, creativity, or flexibility and without consideration of the individual differences with which the patients present" (Nock et al.).

In addition, the study process for particular treatment interventions can be long and painstaking, whereas policy decisions need to be made almost immediately. Although there are specific evidence-based treatments for mental disorders and recommendations for their use in official treatment guidelines, such as the American Psychiatric Association's Practice Guidelines

for the treatment of psychiatric disorders, it is still very difficult to track the kinds of treatment methods actually being practiced (Donald, 2002).

Issues for Consideration

Efforts to disseminate knowledge to stakeholder groups or implement evidence-based interventions must address a variety of factors in order to be successful. These issues, as outlined by the NIMH, 2002, are discussed in the following listing:

- *Differences between science and practice.* Dissemination and implementation efforts require the joining of two, very often distinct, communities. While scientific research seeks to first advance knowledge, clinical practice seeks to do what is immediately best for individual patients.
- *Understanding the target audience.* When disseminating new knowledge, understanding one's target audience is critical. In the mental health community, this target audience varies widely from policy makers and state administrations to local providers or family consumers.
- *The impact of culture.* The "fit" of new information or intervention models within a local context will likely facilitate or impede their implementation.
- *Individual information processing.* The accurate individual receipt and processing of information is critical to dissemination efforts; unfortunately, this process often goes unmeasured.
- *Organizational change.* Dissemination and implementation efforts should consider organizational change strategies along with those targeting individual beliefs and behaviors since providers are embedded within organizations and efforts towards change may be obstructed by administrative hurdles.

Recent Activity Surrounding Evidence-based Practices

The following information is attributed to Kimberly Hoagwood of the New York State Office of Mental Health and Columbia University (2004). There have been more than 1,500 published clinical trials on outcomes of psychotherapies for youth and more than 500 different named psychotherapies This includes six meta-analyses discussing the effects of these treatments and more than 300 published clinical trials on the safety and efficacy of psychotropic medication (Hoagwood). There have also been fourteen major reviews of these interventions. Moreover, 22 federal agencies have endorsed or discussed the use of evidence-based treatments. These agencies include the:

- Administration for Children and Families,
- Agency for Healthcare Research and Quality,
- Center for Mental Health Services,
- National Institute of Health,
- National Institute for Mental Health,
- Health and Human Services Department,
- Central Intelligence Agency, and
- Department of Justice.

Effective prevention interventions for violence prevention, school-based prevention, and social competency enhancement have also been clearly delineated. Information about the cost-

effectiveness of these interventions is also being gathered regarding cost per participant and crime victim benefit. Another significant benefit to this research is that ineffective psychosocial treatments for mental health disorders are being identified.

The following is attributed to Huang et al. (2003). In 1998, approximately $11.75 billion was spent for mental health services for children in the specialty mental health and general health sectors. This represents a three-fold increase since 1986 (Sturm, as cited by Huang et al.). This raises the question of how these dollars are being spent and whether resources are being used effectively. As the evidence increases to identify practices that have proven effectiveness, policy must also address both the selection and funding of these services. Care must be taken not to fund those services that are not found to be effective.

Virginia is also moving toward enhancing the utilization of evidence-based treatments in the public mental health arena. Virginia's Department of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS) promotes the development of evidence-based practices. Evidence-based practices are expected and required, with incentives and support for providers to learn and use these practices (DMHMRSAS, 2004). The Department collaborates with localities in developing and implementing community-based programs that utilize evidence-based practices.

Conclusion

Effective psychosocial treatments are available for treating a wide range of commonly encountered disorders in both controlled research trials and real-world settings. However, these treatments are not widely used by clinicians in the field. The conclusion is that the development of evidence-based treatments does not necessarily lead to their use (Donald, 2002). Dissemination of information about treatments from research settings to actual clinical practice is a vital step, without which evidence-based treatments will be used only by clinical researchers—thus depriving the general public the benefits of these psychotherapeutic advances.

The majority of mental health providers agree on the necessity of providing empirical support for their interventions. Additionally, the public expects to receive effective treatment from mental health professionals. Therefore, one would expect clinicians to incorporate and accept evidence-based treatment into practice settings.

Several factors have been identified to account for this inconsistency. First, the training that mental health professionals receive does not require that they receive comprehensive training in evidence-based treatments; consequently, when they enter practice, they do not have the skills to administer these treatments (Donald, 2002). Second, continuing education programs do not require training in evidence-based treatments; therefore, there is no way to incorporate treatments from research settings to clinical practice. Third, many clinicians in the field are negatively biased toward evidence-based treatments (Donald). Unfortunately, the failure to train practitioners in evidence-based treatment may result in a lack of availability of these treatments (Sanderson, 2002).

Evidence-based practices can be utilized in real-world settings and are effective for children suffering and at risk for suffering with mental disorders (Donald, 2002). The failure to disseminate evidence-based treatment information to clinical practitioners in the field has

resulted in the lack of availability of many of these treatments. This, in turn, has caused a lack of training for appropriate evidence-based treatments for mental disorders in children. With increased accountability in the medical field, the failure to train practitioners in evidence-based treatments will prevent effective utilization and adoption of effective evidence-based treatments.

Evidence-based treatments have been developed with the express purpose of improving the treatment of child and adolescent mental health disorders (Nock et al., 2004). While evidence-based research may suggest that there is limited variability in the patients and the methods used, clinicians can incorporate these well-documented treatments, while still adequately addressing the individual differences of the patient (Nock et al.).

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KEY COMPONENTS OF SUCCESSFUL TREATMENT PROGRAMS

While studies have identified numerous strategies and techniques that are effective in the treatment of different mental health issues, a growing body of research shows that there are three guiding principles that should provide the foundation for any treatment program: integrated programming; engagement of families in treatment efforts; and culturally competent service delivery.

Integrated Programming – the "Systems" Approach

Research continues to support the idea that the mental health needs of children and adolescents are best served within the context of a "system of care" in which multiple service providers work together in an organized, collaborative way. The system of care approach encourages agencies to provide services that are child-centered and family-focused, community-based, and culturally competent. The guiding principles also call for services to be integrated, with linkages between the child-serving agencies and programs that allow for collaborative planning, development, and implementation of services.

In order to assure continuity of treatment, communities must establish a framework which ensures that a child can transition with ease from one service to another. The efficiency of these transitions is enhanced through the creation of effective individualized service plans. These plans, which are targeted to the child's specific needs, identify problems, establish goals, and specify appropriate interventions and services.

Providers have found that a breakdown in the system of care is frequently encountered in the area of discharge planning. A discharge plan should be created whenever a child is transitioning from inpatient or residential treatment back into the community. These plans should be updated in consultation with the child's family or guardian before the child is released from treatment. They should describe the therapy and services begun in the facility and recommend any necessary follow-up services, which should then be coordinated by a case manager. While frequently overlooked, discharge plans are a key component of a comprehensive system of care, as they help to ensure that the gains made in an inpatient or residential setting are continued once the child returns to the community.

Systems of care have been found to produce important system improvements. For example, studies have shown reductions in the use of residential and out-of-state placements, as well as improvements in functional behavior. Parents also appear to be more satisfied with services provided within systems of care than with more traditional service delivery systems. However, the effect of systems of care on costs remains uncertain, and there is little evidence to demonstrate that the system of care framework results in improved clinical outcomes when compared to services delivered within more traditional systems (U.S. Department of Health and Human Services, 1999).

As asserted by the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services, there must be agency collaboration at state and local levels (2004). This can be achieved by promoting integration of services and establishing policies that require services providers to conduct a single comprehensive intake addressing the areas of mental health, mental retardation and substance abuse. Moreover, community partnerships can be strengthened or enhanced to improve the delivery of child and adolescent behavioral health services.

Engagement of Families in Treatment Efforts

During the last two decades, service providers and researchers have increasingly come to realize the important role that families play in mental health treatment services for children. The child mental health system has responded by making families essential partners in the delivery of mental health services for children and adolescents (U.S. Department of Health and Human Services, 1999). For further discussion of the roles that families should play in treatment services, see "Role of the Family in Treatment Programs" in the *Collection.*

According to the President's New Freedom Commission on Mental Health, local, state, and federal officials must engage families to participate in planning and evaluating treatment and support services (2003). The direct participation of consumers and families in developing a range of community-based, recovery-oriented treatment and support services is important. Consumers and families with children with serious emotional disturbances have a key role in mental health care delivery by requesting a system that focuses on recovery and on the utilization of appropriate evidence-based treatments. Goal Two of the President's Commission specifies that mental health care be consumer and family driven. Consumers and families should be encouraged to become fully involved and to promote a recovery-based mental health system. Families can take part in this process by becoming educated about appropriate treatments for their child, as well as who is qualified to deliver these treatments. For more information about mental health providers' qualifications, please see the *Collection*'s section entitled "General Description of Providers."

Culturally Competent Service Delivery

Virginia's population of racial minorities grew from approximately 23 to 28 percent between 1990 and 2000 (U.S. Census Bureau). This growth in diversity has significant implications for service providers in the Commonwealth, as cultural factors are becoming increasingly important in the evaluation and treatment of mental disorders.

Culture has been found to influence many aspects of mental illness. Patients from specific cultures may express and manifest their symptoms in different ways, and may differ in their styles of coping, their family and community supports, and their willingness to seek and continue with treatment. Moreover, clinicians may also be influenced by their own cultural values, and this may affect diagnosis, treatment, and service delivery decisions (U.S. Department of Health and Human Services, 2001).

The following is attributed to Kumpfer and Alvarado (1998). Research has shown that tailoring interventions to the cultural traditions of the family improve outcome effectiveness. Culturally relevant values can be integrated to existing model programs for various ethnic groups. Such an approach can address the various nuances that cultures may exhibit, such as

specific values and beliefs. Various cultural beliefs and modifications need to be incorporated into an organized, culturally sensitive treatment framework. Children do not leave behind all they know from their culture, such as their language and their home lifestyle, yet they may not readily share these elements with strangers. Cultural competency involves addressing the various folkways, mores, traditions, customs, rituals, dialects that are specific to each culture and ethnicity (Saldana, 2001). There is a tremendous amount of variability within and between each cultural group. These differences are described in Table 1.

Table 1

Addressing Cultural Variability

- Acculturalation – This reflects the extent to which a person is familiar and proficient within U.S. mainstream culture.
- Poverty – There may be difference in resources, as well as in "resourceful behaviors" needed for survival. This may include awareness or compliance with traditional mental health interventions.
- Language – Differences exist in fluency in the client's native language and in English, but also in dialect. Among various ethnicities, there exists many different language sub-groups.
- Transportation, Housing, & Childcare – A lack of available supports may interfere with access to treatment and adherence with provider expectations.
- Reading Ability/Educational Background – Individuals may vary substantially in academic experience and aptitude. This is true within ethnic subgroups, as well as between subgroups.
- Beliefs – People from diverse cultures vary in their beliefs about what is considered "illness," what causes the illness, what should be done to address the illness and what the treatment outcome should be. The provider cannot assume the client's views match their views.
- Physical Characteristics – People of color differ in their appearance even within ethnic groups.

Source: Saldana, 2001.

Cultural differences may exacerbate the general problems of access to appropriate mental health services in the community. The mental health treatment setting relies significantly on language, communication, and trust between patients and providers. Therapeutic success may therefore hinge on the clinician's ability to understand a patient's identity, social supports, self-esteem, and perception of stigma. Consequently, mental health service providers must recognize underlying cultural influences so they can effectively address the mental health needs of each segment of the community (U.S. Department of Health and Human Services, 1999).

Culturally competent treatment programs are founded upon an awareness of and respect for the values, beliefs, traditions, customs, and parenting styles of all of the people served in the community. Providers are aware of the impact of their own culture on the therapeutic relationship with their clients, and therefore make sure that they consider these factors when planning and delivering the services for youth and their families. Furthermore, culturally competent programs ideally include multilingual, multicultural staff and provide extensive community outreach (Cross et al., 1989).

The services offered within a community should also reflect a respect for cultural diversity; for example, the inclusion of extended family members in treatment efforts should be incorporated within certain treatment approaches, when appropriate. It would also be beneficial for mental health agencies to display culturally relevant pictures and literature in order to show respect and increase consumer comfort with services. Furthermore, agencies should consider the holidays or work schedules of the consumers when scheduling office hours and meetings (Cross et al., 1989).

In addition, cultural differences other than ethnicity must be considered. For example, Americans living in rural areas display unique characteristics that present barriers to mental health care as well. Some individuals living in these areas do not seek care where there is a perceived stigma attached to mental health disorders and a lack of understanding about mental illnesses and their treatments, a lack of information about where to go for treatment, and an inability to pay for care. Furthermore, factors such as poverty, geographic isolation, and cultural differences may affect the amount and quality of mental health care available to these individuals. These issues are further complicated by the limited access to and availability of mental health specialists, such as psychiatrists, psychologists, psychiatric nurses and social workers in rural areas (NIMH, 2000).

It is important to consider the impact of culture on mental health service delivery. Specialized cultural programming has been found to promote service utilization for all ages, including children (Snowden & Hu, 1997). Furthermore, children and families enrolled in mental health programs that are linked to community culture have been found to be less likely to drop out of treatment than families in mainstream programs (Takeuchi et al., 1995). Cultural training and service planning serve as important components of the mental health delivery system.

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REFERENCE CHART OF DISORDERS AND EVIDENCE-BASED TREATMENTS

EVIDENCE-BASED CHILDREN'S MENTAL HEALTH
Findings by Treatment Type[2]

Disorders/Behavior	Support for Treatment	Positive Effects Consistent Evidence	Inconsistent Evidence Unproven	Comments
ADHD	Evidence-based Treatments	*Psychosocial* Parent Management Clinical behavior therapy *Pharmacological Treatments* Methylphenidate (MPH)	Dietary replacement, exclusion; various vitamin, mineral, or herbal regimens; biofeedback; and perceptual stimulation	Not necessary to select one treatment at the expense of the other.
Adjustment Disorders	Promising Treatments	*Psychosocial* Cognitive Behavioral Therapy Stress Management Family Therapy Group Therapy		Medication is seldom used as a singular treatment for adjustment disorders because the child requires assistance in coping with the stressor causing the maladaptive behavior.
Anorexia Nervosa	Evidence-based Treatments	*Psychosocial* Nutritional Rehabilitation – Considerable evidence suggests that nutritional monitoring is effective in family psychotherapy inpatient behavioral programs *Pharmacological Treatments* SSRIs	Individual Psychotherapy Group Therapy 12 Step Programs Somatic Treatments	It is important to note that many patients display a limited response to treatment and will require long-term monitoring and intervention.

[2] The information contained in herein is strictly for informational purposes and is not intended to replace the advice and counsel of a medical professional.

Disorders/Behavior	Support for Treatment	Positive Effects Consistent Evidence	Inconsistent Evidence Unproven	Comments
Binge Eating Disorder	None Available			Treatment goals and strategies for binge eating disorder are similar to those for bulimia nervosa except patients with binge eating disorder present difficulties associated with being overweight, rather than being malnourished.
Bipolar Disorders	Evidence-based Treatments	*Psychosocial* No consistent studies on psychosocial treatments with children *Pharmacological Treatments* Lithium	Electroconvulsive therapy (no research with children)	Some evidence supporting the use of lithium in the acute phase. No evidence for or against the use of electroconvulsive therapy.
Bulimia Nervosa	Evidence-based Treatments	*Psychosocial* Cognitive Behavioral Therapy Combined Treatments Group Therapy *Pharmacological Treatments* SSRIs	Bupropion Monoamine Oxidase Inhibitors (MAOIs)	Treatment includes treatment of co-occurring disorders, establishment of regular, non-binge meals, and improvement of attitudes related to the disorder.
Fire Setting	Promising Treatments	*Psychosocial* Cognitive Behavioral Therapy Fire Safety Education		Leaving the child untreated is not beneficial, as child usually does not outgrow this behavior.
Mental Retardation	Evidence-based Treatments	*Psychosocial* Individual Therapy Family Therapy Social Skills Training Cognitive Therapy		Treatment is tailored for co-occurring disorders and is based on two guiding principles: normalization and community-based care.

Disorders/Behavior	Support for Treatment	Positive Effects Consistent Evidence	Inconsistent Evidence Unproven	Comments
Oppositional Defiant & Conduct Disorder	Evidence-based Treatments	*Psychosocial* Parent training based on Living with Children Videotape Modeling Parent Training Multisystemic Therapy Anger Coping Therapy Assertiveness Training Delinquency Prevention Program Rational Emotive Therapy *Pharmacological Treatments* Stimulants Mood Stabilizers	Boot camps; psychiatric hospitalization; medication trials; brief courses of Cognitive-Behavioral Therapy	Interventions are usually performed in school or home. Various treatment modalities are utilized for treating these disorders, as well as the comorbid disorders accompanying ODD and CD. Medications must only be prescribed in conjunction with psychological interventions, such as parent training.
Pervasive Developmental Disorders (Autism & Asperger's Disorders)	Promising Treatments	*Behavior Interventions* ▪ Educational and Communication-focused Interventions ▪ TEACCH (Treatment and Education of Autistic and related Communication handicapped Children) ▪ Natural Language Methods ▪ (PECS) Picture Exchange Communication System ▪ Behavior Intervention *Pharmacological Treatments* ▪ Antipsychotics ▪ Psychostimulants	ff	TEACCH & Home Based Behavior Therapy are good options. Low prevalence of autism approaches to treatments are: 1. Focus on specific symptoms or learning needs; 2. Focus on reversing the level of impairment.

Disorders/Behavior	Support for Treatment	Positive Effects Consistent Evidence	Inconsistent Evidence Unproven	Comments
Self Injury	Promising Treatments	*Psychosocial* Cognitive Behavioral Therapy Behavior Modification Addictions Model *Pharmacological Treatments* SSRIs		Research continuing on psychosocial interventions and medications. Hospitalization used as last resort.
Sex Offending	Promising Treatments	*Psychosocial* Multisystemic Therapy Residential Sex Offender Treatment		Promising sex offender treatment programs often combine an intensive, multi-modal approach with early intervention. Comprehensive cognitive-behavior programs often focus on taking responsibility for one's sexual behavior, developing victim empathy, and developing skills to prevent future offending. Approaches to the treatment of juvenile sex offenders can vary.
Substance Abuse	Evidence-based Treatments	*Psychosocial* ▪ Cognitive Behavioral Therapy ▪ Group Therapy ▪ Behavioral Therapies ▪ Skills Development ▪ Family Therapy ▪ Multisystemic Therapy Individual Psychotherapy ▪ Medical Detoxification		The use of medication should be pursued only as a last resort in the dually-diagnosed population, given the potential for misuse and overdose.

Disorders/Behavior	Support for Treatment	Positive Effects Consistent Evidence	Inconsistent Evidence Unproven	Comments
Tourette's Disorder	Evidence-based Treatments	*Psychosocial* Habit Covariance Habit Reversal *Pharmacological Treatments* Neuroleptics	Plasma exchange or intravenous immunoglobulin (IVIG)	When tics interfere with functioning and/or there are other disorders present, medication may be helpful.

EVIDENCE-BASED CHILDREN'S MENTAL HEALTH
Findings by Service Setting

Disorders	Support for Treatment	Positive Effects Consistent Evidence	Inconsistent Evidence Unproven	Comments
Juvenile Justice – Multi Modal Interventions	Evidence-based treatments	Multisystemic Therapy (MST) Wraparound Integrated Systems of Care Functional Family Therapy Cognitive Behavioral Therapy Multidimensional Treatment Foster Care		MST is the most effective treatment for delinquent adolescents and MST shares strengths with other systemic family approaches.
School Setting Interventions	Promising Approaches	Integration of mental health professionals into the school environment Creation of a "System of Care" within the school environment Engagement of families in educational planning and services Consistent program implementation Other environmental and community factors		Classroom contingency management methods are effective in controlling the behavior of children with conduct problems. Parent- administered reinforcements enhance classroom contingency management.

MENTAL RETARDATION

Introduction

Mental retardation is not a single, isolated disorder. It is a term used to describe a condition affecting individuals who are limited in mental functioning to a level that affects many aspects of life, including basic skills such as communicating, taking care of personal needs, and social interaction. The national prevalence rate for mental retardation has been cited at 1.1 percent (Kerker, as cited by the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services, 2003). Mental retardation is approximately 1.5 times more common in boys than in girls (Silka & Hauser, 1997).

The following information is specific to Virginia and was obtained from the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS). According to Shirley G. Ricks, Director of Office of Child and Family Services, national prevalence estimates applied to 2000 Census Data for Virginia indicate that 1.2% of Virginia's population (or 11.8 cases per 1,000) have mental retardation (Personal Communication, July 19, 2005). Based on the prevalence rate, it is projected that 14,166 children in the Commonwealth have mental retardation. The Virginia Department of Education data indicates that there are 13,975 children between the ages of 3-22 with mental retardation being served by the school system. In 2004, data from Virginia's community services boards indicated that 10,973 children between the ages of 0 to 17 having a diagnosis of mental retardation were being served (Personal Communication, July 19, 2005).

Mental retardation originates before the age of 18 (DMHMRSAS, 2003). The first signs of mental retardation are usually displayed in early childhood, often within the first or second year of a child's life. The child tends to lag behind his peers in milestones such as sitting up, walking, and talking. He also demonstrates lower than normal levels of interest in his environment and responsiveness to others (*Gale Encyclopedia of Childhood and Adolescence*, 1998). The existence of limitations in adaptive skills occurs within the context of community environments, typical of the child's age and is based on individualized needs for supports (DMHMRSAS). It is important that parents, pediatricians, and service providers are familiar with and recognize these signs, as early

intervention serves as a crucial component to ensure that the development and quality of life of these children are maximized.

The Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (*DSM-IV*), published by the American Psychiatric Association (APA), provides the standard criteria for a diagnosis of mental retardation which are used in the diagnosis of children, as well as adults. The disorder is characterized by "significantly subaverage intellectual functioning" which must be supported by three factors: intellectual impairment, significant difficulty in adaptive functioning, and onset before the age of 18 (APA, 1994).

The first required element of the diagnosis—intellectual impairment—is typically measured by cognitive testing instruments. Normal intelligence (IQ) measurements on standardized, individually administered tests such as the Wechsler Intelligence Scale or the Stanford-Binet test generally fall between 80 and 135 and, for this diagnosis, the child must have an IQ that falls below 70 or 75 (Szymanski & King, 1999). The threshold for mental retardation is typically set at 70, and experts generally agree that scores of 71-75 are consistent with mental retardation only when significant deficits in adaptive behavior are present (Szymanski & King). Normal IQ measurements on these tests generally fall between 80 and 135.

In addition, all children receiving the diagnosis must also demonstrate significant impairment in two or more of the following adaptive skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work (APA, 1994). There are standardized scales to measure these behaviors, but they often do not capture all of the functional domains, and therefore this element of diagnosis is typically measured after a clinical assessment of the child (Szymanski & King, 1999).

The *DSM-IV* also requires that the onset of symptoms occurs prior to the age of 18. It is important to note, however, that experts warn that children under the age of two should not be given a diagnosis of mental retardation unless the deficits are relatively severe and/or the child has a condition that is highly correlated with mental retardation, such as Down syndrome. Instead, service providers should acknowledge the cognitive or behavioral deficit as a form of developmental disability and leave room for further diagnosis as the child gets older (Biasini et al., in press; Sattler, 1992). *Mental retardation* should not be used interchangeably with the term *developmental disability. Developmental disability* is not a medical term, but is instead a legislative concept referring to a broad spectrum of disorders, including mental retardation, epilepsy, and autism.

A diagnosis of mental retardation has been further classified based on the child's level of impairment. The four categories adopted by the *DSM-IV* are: mild (IQ between 50/55 and 70), moderate (IQ between 35 and 50), severe (IQ between 20 and 35), and profound (IQ below 20). Studies have found that 80 to 85 percent of those with the diagnosis fall within the mild mental retardation range, while fewer than six percent are diagnosed with severe or profound mental retardation (Szymanski & King, 1999).

Etiology

There are numerous causes for mental retardation. Those most frequently cited include external factors such as infections, trauma, toxins, premature births and delivery problems. Down syndrome, Fragile X syndrome and fetal alcohol syndrome (FAS) together are responsible for 30 percent of all identified cases (Jellinek, Patel, & Froehle, 2002). An estimated 300 genes are believed to play a role in mental retardation; while only 11 genes responsible for mental retardation are not associated with named syndromes, e.g., Down syndrome (Kingman, 2002). In about a third of people with mental retardation, no cause for that retardation has been found (Dallas Morning News, 2002).

A deficiency of a key protein called WAVE-I, found throughout the brain, may correlate with one form of mental retardation (Pain & Central Nervous System Week, 2003). The findings from the study cited indicate that mental retardation involves many more areas of the brain than previously determined (Pain & Central Nervous System Week).

It is important for the causes of retardation to be identified, if possible, in order to clarify the prognosis and to tailor treatment efforts (Szymanski & King, 1999). Furthermore, the identification of causation may be valuable in alerting the clinician to possible medical and behavioral complications that occur more frequently in certain conditions (Szymanski & King). However, research has shown that in 58 to 78 percent of the cases of mild retardation and in 23 to 43 percent of severe cases, no official cause has been determined (Szymanski & King). The milder the mental retardation, the more difficult it is to identify the etiology (Jellinek, Patel, & Froehle, 2002).

A multidisciplinary team that may include psychologists, psychiatrists, pediatricians, and clinical geneticists typically conducts the assessment for mental retardation. All assessments should be comprehensive and should include standardized intelligence testing, evaluation of adaptive skills through testing or clinical evaluation, biomedical and family history evaluation, and psychological and behavioral testing (Szymanski & King, 1999).

Comorbidity

Individuals who receive a diagnosis of mental retardation frequently suffer from additional mental disorders as well (Masi, 1998). Clinicians and researchers have explained this high prevalence of co-morbidity as the result of the psychological vulnerability of children with mental retardation. This can have a significant impact on a child's coping skills and mental health, and it may be one of the primary factors limiting the functioning, quality of life, and adaptation of mental retardation to community life (Masi).

The prevalence of mental illnesses in children with mental retardation ranges from 27 to 71 percent (Bregman, 1991). There is a substantial range of variation in the prevalence rates found in prior studies due to differences in methodology, diagnostic definitions, and population sampling strategies among the different studies. Frequently, the symptoms of mental retardation may

disguise the symptoms of any co-occurring disorders (Rifkin, 2004). The most common comorbid conditions are described in more detail in the following paragraphs:

- *General Medical Conditions* – Seizure disorders are present in 15 to 30 percent of individuals with severe or greater mental retardation, and motor handicaps (20 to 30 percent) and sensory impairments (10 to 20 percent) are also frequently reported (Szymanski & King, 1999).
- *Pervasive Developmental Disorders* – Mental retardation is extremely common in children with pervasive developmental disorders. Approximately 75 percent of autistic children are also diagnosed with mental retardation (Fombonne, 1997). However, a reciprocal relationship has not been reported; the majority of children with mental retardation do not display significant impairments in reciprocal social interaction that are typically present in pervasive developmental disorders such as autism.
- *Attention Deficit Disorders (ADD and ADHD)* – The incidence of Attention Deficit Disorder (ADD) is more frequent in persons with mental retardation (18 percent) than in the general population (9 percent) (*DSM-IV*). Attention Deficit Hyperactivity Disorder (ADHD) is also particularly frequent, with a range of 4 to 11 percent of persons with mental retardation affected by this disorder (Feinstein & Reiss, 1996). Experts have attributed the frequency of these diagnoses in the mentally retarded to the fact that inattention is often a component of intellectual impairment.
- *Conduct Disorders* – It has been reported that approximately one third of children and adolescents with mental retardation display the characteristics of conduct disorder (Richardson et al., 1985). However, experts caution that it is important to consider the child's circumstances, ability to understand social rules, and possession of sufficient skills to communicate opposition when proposing such a diagnosis (Szymanski & King, 1999).
- *Behavior Disorders* – Children with greater degrees of mental retardation have been found to display increased aggressiveness, feeding disorders, stereotyped movements and self-injurious behavior (Masi, 1998). Self-injurious behavior is particularly common, with approximately 10 to 15 percent of persons with mental retardation displaying these characteristics (Oliver et al., 1987). The tendency to self injury is particularly common in certain mental retardation syndromes, such as Lesch-Nyhan, Prader-Willi, as well as in patients with mental retardation who experience mood disorders (depressive and manic), schizophrenia, personality disorders, and anxiety disorders (especially obsessive-compulsive disorder) (Masi).
- *Mood Disorders* – Mood disorders, especially of the depressive nature, are quite common in persons having mental retardation and are believed to be significantly underdiagnosed (Szymanski & King, 1999). Social isolation, stigmatization, and poor social skills put children with mental retardation at increased risk for depression (Reiss & Benson, 1985). The symptoms are often triggered by external stressful events, but ordinary life changes can also be responsible (Masi, 1998). Bipolar mood disorders are also present in the mentally retarded, but are more difficult to recognize. They have been found to involve dysphoria coupled with periods of irritability, aggressiveness, or self-injury, rather than the more typical manic episode (Masi).
- *Anxiety Disorders* – While it is likely that these disorders are highly prevalent in persons with mental retardation, they are believed to be underreported due to the difficulty diagnosing persons of limited intelligence (Masi, 1998). Research indicates that the most frequent manifestations of anxiety disorders in this population include acute episodes of anger, flight, and crying or compulsions (repetitive, ritualistic behaviors) (Masi). Clinicians have found that psychosocial stress factors, including fragile self-esteem, fears of failing, and loss of

caregivers are likely contributors to the psychological difficulties of this population (Szymanski & King, 1999).

- *Posttraumatic Stress Disorder (PTSD)* – PTSD is also believed to be significantly under-diagnosed in this population (Szymanski & King, 1999). Mentally retarded children are particularly vulnerable to abuse given their high level of dependency and their tendency to want to please others, as well as lack of understanding of their rights. They may also be targeted because of their lack of communication skills, which may prevent reporting.
- *Schizophrenia* – The incidence of schizophrenic disorders has been found to be higher in children diagnosed with mental retardation than in the general population (Heaton-Ward, 1977). All forms of psychotic disorders have been identified in mentally retarded persons (Masi, 1998).

The diagnostic evaluation for psychiatric disorders is principally the same for patients with mental retardation, child and adult, as it is in the general population (Szymanski & King, 1999). It is important to recognize, however, that the psychiatric diagnostic assessment of children with mental retardation must be comprehensive and consider biological, psychological, and social contexts, rather than being merely a "medication evaluation" focused only on the choice of drug to suppress a disruptive behavior. Furthermore, any additional mental health diagnosis should be formal and specific, rather than a nonspecific description of "behavior disorder" or "challenging behavior." It is important that the child's assessment and resulting diagnosis demonstrate that he is ill, rather than merely "bad" or "noncompliant."

There are certain specific limitations that affect the reliability of the dual diagnosis in children and adolescents with mental retardation. First of all, the level of communication skills that the child or adolescent exhibits is strongly related to the reliability of the diagnosis (Szymanski & King, 1999). Individuals with more severe cognitive limitations are less likely to be given a dual diagnosis than children with lower levels of impairment due to their inability to communicate their symptoms and distress (Borthwick-Duffy & Eyman, 1990). Evaluation of significantly impaired children requires the mental health assessor to depend on information provided by caregivers familiar with the child and on direct behavioral observations, which tend to be less informative and reliable.

The reliability of the diagnosis is also highly reliant on the availability of information regarding the biological, psychological, and social history of the child or adolescent (Biasini et al., in press). The child's history of behavior and symptoms are often crucial in making a diagnosis and, in the absence of this information, the evaluator is placed in the difficult position of making a diagnosis strictly on current symptoms and behavior without being fully informed of a child's treatment history. This information is particularly crucial in the evaluation of children with profound and severe mental retardation. Many psychologists and psychiatrists rely heavily on biological markers, observable signs, and patterns of family psychopathology to diagnose these severely impaired children (Sturmey, 1995).

The strength and accuracy of a diagnosis is also directly affected by the experience and training of the clinician conducting the evaluation (Szymanski & King, 1999). It is crucial that the assessment be conducted by an individual specially trained in the evaluation and treatment of children with mental retardation. Furthermore, clinicians must recognize that there are often mismatches between the behaviors scripted in the *DSM-IV* for certain diagnoses and the symptoms presented in children with mental retardation (Biasini et al., in press). These differences can lead to

under-diagnosis; therefore, evaluators must be comprehensive in their approach and think outside the usual formulas when diagnosing mentally retarded children (Sturmey, 1995).

Treatment

The treatment of children with mental retardation is based on two guiding principles: normalization and community-based care (Szymanski & King, 1999). Normalization requires that children with mental retardation live under patterns and conditions of everyday life that are as close as possible to mainstream society. This is based on the premise that the life functioning of a child or adolescent with mental retardation will improve if they have adequate supports (Jellinek, Patel, & Froehle, 2002). The concept of community-based care flows directly from this principle, calling for the treatment and integration of mentally retarded children within the community to the maximum extent possible. No more than 10 percent of persons with mental retardation in this country have ever lived in institutional settings, and most can be found either living with their families or in community-based out-of-home placements such as foster care, group homes, and independent living programs (Szymanski & King). Service providers have found that, with proper services, the majority of children with mental retardation do well in the community. With appropriate personalized supports over a sustained period, the life functioning of the child with mental retardation generally will improve; however, mental retardation is a life-long disability (DMHMRSAS, 2003).

The primary goal of service providers specializing in mental retardation is prevention, as there is no cure for the condition once the damage has occurred (Szymanski & King, 1999). Whenever possible, providers hope to prevent conditions that may result in mental retardation in children by educating women and families about the benefits of abstinence from alcohol during pregnancy and frequent child immunizations. Moreover, if an underlying condition that may lead to mental retardation has been identified in a child, providers focus on the treatment of that specific disorder in order to minimize potential brain injuries that could increase the risk of mental impairment.

However, once a child has been diagnosed with mental retardation, providers begin to pursue early intervention, education, and ancillary treatments, such as physical, occupational, and language therapies (Szymanski & King, 1999). In addition, family support and other services are typically put into place to ensure that the child is receiving comprehensive care in the home, school, and community.

The methods and intensity of treatment are adapted as the child progresses in age. In infants, exercises and special types of play are used to provide sensory and motor stimulation and enhance development (*Gale Encyclopedia of Childhood and Adolescence*, 1998). All states are required by law to offer early intervention programs for mentally retarded children from the time they are born. Once the child reaches the age of three, federal law requires that special education programs be made available for the child and family. These services concentrate on self-care, such as feeding, dressing, and toilet training, and also provide assistance with language and communication difficulties and physical difficulties. As the child gets older, the emphasis on special education programs changes to training in daily living skills, as well as academic subjects. Treatment efforts will also include medical care for any comorbid physical conditions, such as seizure disorders, motor handicaps, and sensory impairments, as well as treatment of any psychosocial dysfunction and comorbid mental disorders.

Several factors may influence the choice of treatment method in children with mental retardation. First, the child's level of cognitive and communication skills may cause a service provider to adapt the method of treatment. For example, a child who lacks communication skills would be unable to benefit from verbally based treatments such as psychotherapy; consequently, behavioral modification and educational accommodations would be more effective. Another consideration is the impact of any concurrent general medical disorders. An effective treatment plan requires that the service provider recognize the child's physical limitations and synthesize physical, developmental, and psychological needs and interventions (Szymanski & King, 1999).

Furthermore, the site of treatment may impact the methodology used. In most cases, outpatient settings are appropriate if the necessary services can be secured in the community. However, providers must be more cautious when placing mentally retarded children in inpatient treatment facilities. Clinicians have reported that not all of these facilities are familiar with needs of children with mental retardation and many are not equipped to provide these children with appropriate therapy, habilitative or recreational programs, and other necessary services (Szymanski & King, 1999). Consequently, placements must be carefully made after the provider has gained a wealth of knowledge regarding the services offered and the methods used by the facility.

An additional factor that can have a significant impact on treatment efforts is the willingness of the child and family members to participate and comply with the therapeutic plan. Education and ongoing support are essential, and detailed explanations must be given to family members to ensure that they understand all of the behavioral and pharmacological interventions that are being used to treat the child.

Developmental and Educational Services

All states are required by law to offer early intervention programs for children with mental retardation from the time they are born. Infant/toddler services can be home-based, center-based, or some combination of these two methods. The nature of the services is determined based on an assessment of the child and the family priorities. Under federal law, these considerations must be used to develop an Individual Family Service Plan (IFSP) for the child, which should include input from all parties participating in the intervention. This plan is usually developed and coordinated by a case manager who is available and acceptable to the family. The services that are provided in response to this plan may include assistive technology, intervention for sensory impairments, family counseling, parent training, health services, language services, nursing intervention, nutrition counseling, occupational therapy, physical therapy, case management, and transportation to services (Biasini et al., in press, 1999).

As the child gets older, psychoeducational services must be provided. The Individuals with Disabilities in Education Act (IDEA) (Public Law 94-142, Public Law 99-457, and Public Law 102-119) requires that children with mental retardation or related developmental disorders receive a free and appropriate education. Interventions are based on the needs of the child as determined by a team of professionals. These interventions should address the priorities and concerns of the family and should be provided in the least restrictive and most inclusive setting, allowing them to have every opportunity to interact with nondisabled peers and to have access to the community resources available to all other children.

The services provided to preschool children and school-aged children can be home-based, but are more frequently center-based. As in the case of infants and toddlers, an Individualized

Education Plan (IEP) is developed through team evaluation and parental input. This plan describes the objectives for improving the child's skills and may include family or parent-focused activities. It may include special education services, child counseling, occupational therapy, physical therapy, language therapy, recreational activities, school health services, transportation services, and parent training or counseling. These services must also be provided in the least restrictive setting possible, such as a regular preschool program, Head Start Center, or the child's home (Biasini et al., in press).

Treatment of Comorbid Conditions

The general principles of treatment are the same as those for children with other mental disorders. However, treatment techniques may need to be modified in order to adapt to the individual's developmental level, particularly regarding communication skills.

Two elements significantly affect the effectiveness of psychotherapy in children with mental retardation. First, the child must exhibit a sufficient level of communication skills in order for this type of therapy to be appropriate. Second, in order to maximize results, treatment must be implemented across settings (classroom, home, and other environments); and the therapist must collaborate with the other interested parties in the child's life, such as teachers, family members, and other service providers (Szymanski & King, 1999).

The most effective forms of psychotherapy are:

- *Individual therapy* – This type of intervention has been found to be beneficial for mentally retarded children with higher cognitive skills (Harris, 1995). It is best conducted by a therapist specifically trained in developmental disorders. Techniques and activities should be adapted to the child's chronological age and level of development (Szymanski & King, 1999).
- *Family therapy* – Research supports the benefits of family therapy for children with mental retardation (Harris, 1995). It typically focuses on the caregiver's identification and support of the child's strengths and independence, and the provision of opportunities for success. It may also include educational and emotional support components. The family should be seen as treatment team members, as they are essential to recognizing the child's strengths, avoiding guilt feelings and overprotection, supporting the child's pathways to independence, and providing opportunities for success. This form of therapy has also been found to be beneficial in assisting in locating resources, identifying entitlement for services and providing advocacy, empathy, and concrete advice in management of the child's disability (Szymanski & King, 1999).
- *Group therapy* – Therapeutic efforts in a group environment have been found to be particularly useful with adolescents who have relatively good verbal skills, as they often benefit from peer interaction and support (Szymanski & King, 1999; Harris, 1995). Multiple family group therapy has also been found to be beneficial, as it provides the family and child with support in a context similar to society at large (Szymanski & Kiernan, 1983).
- *Behavior modification* – Behavioral modification has been reported to be beneficial to children with mental retardation that lack social skills or demonstrate problem behaviors such as self-injury (Reiss, 1985). This intervention provides a consistent and structured framework for teaching appropriate behavioral patterns, as well as adaptive life skills. It should be generalized and consistent in all settings, such as home and school, and should focus on teaching appropriate skills and behaviors to replace maladaptive behaviors,

rather than merely suppressing them (Szymanski & King, 1999). Behavioral interventions teach helpful ways to communicate, play, and work (Rifkin, 2004).

- *Social skills training* – Social skills training has also been found to improve the integration of mentally retarded children into the community (Hollins et al., 1994). Those who receive social skills training are taught effective social interactions and appropriate social behavior.
- *Cognitive therapy* – This form of therapy teaches children with mild retardation to recognize situations in which they get into trouble and to adopt alternative behaviors and solutions. It has only recently been adapted for use with mentally retarded children, and therefore research regarding its effectiveness is limited (Benson, 1992). The therapeutic goal would be to develop more reasonable goals, with care taken not to set goals that are beyond the patient's cognitive ability (Rifkin, 2004).

Pharmacological Treatment

The effects of medication are not generally different in mentally retarded children than in the general population (Szymanski & King, 1999). However, certain issues related to pharmacology have been recognized exclusively in the mentally retarded population. For example, clinicians have found that medication is often prescribed to mentally retarded children for symptom suppression without being integrated into the overall treatment plan (Szymanski & King, 1999). The literature repeatedly advises that medication should not be used for the convenience of caregivers or as a substitute for appropriate services. An additional concern is that follow-up behavioral data is infrequently collected and providers often fail to monitor for side effects. This is especially important in mentally retarded populations, because these patients may be unable to report symptoms adequately.

While psychotropic drugs are not often used with mentally retarded children, they are most often prescribed in patients who exhibit disruptive behavior, including self-injury, stereo-typed behaviors, e.g., hand or finger twisting, or complex whole body movements, and aggression (Szymanski & King, 1999). Recent research suggests that atypical antipsychotics may be a better first choice than typical antipsychotics because of the lowered risk of side effects (Rifkin, 2004). This must be considered in light of the fact that there are no studies that address the use of antipsychotics in patients who are aggressive and psychotic (Rifkin). It is important to note that no professional body has published drug guidelines for patients with mental retardation, thus, thorough psychosocial assessment and treatment are import in the treatment of patients with mental retardation whether or not they receive drug treatment (Rifkin). Moreover, medications should be prescribed as they would be for the general psychiatric population, but with special attention being paid to possible behavioral effects (Silka & Hauser, 1997).

Discharge Planning

As indicated by Silka & Hauser, appropriate discharge planning is crucial for children that may be placed in acute or short-term inpatient treatment (1997). Effective discharge planning strengthens the supports provided by an existing placement as it facilitates continued psychiatric care. Ideally, discharge planning, including plans for outpatient follow up and the provision of any additional services, should commence early in the process. Early and continual contact with all community supports, from family to outpatient therapists, is imperative. Questions to be addressed

by the treatment team should include:

- Who is responsible for which service (case manager, family, agency, client, and others)?
- What is expected from this hospitalization?
- What are the minimal discharge criteria? (Silka & Hauser).

Unproven Treatments

The effectiveness of diet restrictions in mentally retarded patients generally is not supported by research (Szymanski & King, 1999). These types of treatments include vitamin and mineral supplements and various dietary restrictions, such as yeast and gluten-free regimens.

Other Important Treatment Elements

Cultural Considerations

Any assessment of adaptive behavior focuses on how well children can function and maintain themselves independently and how well they meet the personal and social demands imposed on them by their cultures. Because various cultures may hold their own views regarding the level of functioning/skills expected of children of certain ages, clinicians must be culturally sensitive in diagnosing children with developmental delays and retardation. In addition, the sociocultural background and native language of the child should be considered in assessing intelligence and level of impairment (Szymanski & King, 1999).

Family Involvement

Service providers must make every effort to include the family in all aspects of treatment and planning. They must consider the level of knowledge and understanding of the family regarding the disability of the child, and must also be sure that the family is sufficiently informed of all service and treatment options. If professionals fail to acknowledge parents as partners in the process, they run the risk of alienating them in the process. This can result in a lack of interest or participation in necessary services. Thus, the knowledge and expertise families already possess about their child and their child's syndrome should be valued (Hodapp, DesJardin, & Ricci, 2003). Families of children with less common genetic syndromes become the experts on their child's disorder, thus frequently being the only ones with experience or knowledge of a particular syndrome (Fidler & Hatton, as cited by Hodapp, DesJardin & Ricci).

Availability of Community Services and Supports

The Arc, a non-profit organization which supports the mentally retarded, has reported that approximately 200,000 individuals nationwide are on waiting lists for such essential supports and services as service coordination, housing, employment, in-home supports, early intervention, transportation, and respite care (The Arc, 1999). A report by the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS) shows that service availability for mentally retarded children is also a serious concern in Virginia. In its 2001 Comprehensive State Plan, the DMHMRSAS reported that 1,858 children and adolescents were on the waiting list for mental retardation services.

Research indicates that lack of services can exacerbate the problems of children with mental retardation, as it may allow for an increase in the severity of the disability or learning delays (The Arc, 1999). Furthermore, the lack of services may also lead to greater dependence, isolation, and a decrease in self-esteem and productivity. Consequently, providers and policy makers must make

every effort to identify these children and provide them with necessary services to ensure that they become productive members of society.

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Additional Resources/Organizations

American Association on Mental Retardation
4444 North Capitol Street, NW. Suite 846 - Washington, DC 22001-1512
http://www.aamr.org.

The Council for Exceptional Children
Division on Developmental Disabilities
1110 North Glebe Road, Suite 300 - Arlington, VA 22201-5704
703-620-3660, 866-915-5000 (TTY), 888-232-7733
Email: cec@cec.sped.org
http://www.dddcec.org

National Down Syndrome Society (NDSS)
666 Broadway, Eighth Floor - New York, NY 10012-2317
212-460-9330 or 800- 221-4602
http://www.ndss.org

National Fragile X Foundation
P.O. Box 190488 - San Francisco, CA 94119
Email: NATLFX@FragileX.org
800-688-8765
http://www.fragilex.org

National Organization on Fetal Alcohol Syndrome
900 17th Street, NW, Suite 910 - Washington, DC 20006
202-785-4585 or 800-66NOFAS (666-6327)
Email: info@nofas.org

National Information Center for Children and Youth with Disabilities (NICHCY)
P.O. Box 1492 - Washington, DC 20013
800-695-0285 (Voice/TTY)
Email: NICHCY@aed.org
http://www.nichcy.org

Special Education Resources
http://www.specialednet.com/Resources.htm

The Arc (formerly Association for Retarded Citizens)
1010 Wayne Avenue, Suite 650 - Silver Spring, MD 20910
301-565-3842
http://www.thearc.org.

U.S. Department of Education

U.S. Office of Special Education and Rehabilitative Services
400 Maryland Ave., S.W. - Washington, DC 20202-7100
202-245-7468
http://www.ed.gov/about/offices/list/osers/index.html

IDEA 1997 Statute on Implementing Regulations
202-205-5465 or 202-205-5507
http://www.ed.gov/offices/OSERS/IDEA

U.S. Department of Health and Human Services
Administration for Children and Families
Administration on Developmental Disabilities
Mail Stop HHH 300-F
370 L'Enfant Promenade, SW - Washington, DC 20447
202-690-6590
http://www.acf.dhhs.gov/programs/add

Virginia Resources

Department of Mental Health, Mental Retardation and Substance Abuse Services
Virginia Office of Mental Retardation Services
P.O. Box 1797 - Richmond, VA 23219
804-786-1746
http://www.dmhmrsas.state.va.us

Partnership for People with Disabilities at Virginia Commonwealth University
700 East Franklin Street, 10th Floor - Richmond, VA 23284
804-828-3876 or 800-828-1120 (TDD Relay)
http://www.vcu.edu/partnership

Support for Consumer-Run Mental Health Programs in Virginia
http://www.vocalsupportcenter.org/valinks.htm

The ARC of Virginia
2025 East Main Street, Suite 120 - Richmond, VA 23223
804-649-8481
E-mail: thearc@arcofva.org
http://www.arcofva.org

University of Virginia Health System
Mental Retardation
http://www.healthsystem.virginia.edu/internet/homehealth/retardation.cfm

Virginia Fragile X Resource Group
http://www.vafragilex.org/right.html

Virginia Office for Protection and Advocacy

Richmond Office
1910 Byrd Avenue, Suite 5 - Richmond, VA 23230
E-mail: general.vopa@vopa.virginia.gov
804-225-2042 or 800-552-3962
TTY 804-225-2042 or 800- 552-3962
http:// www.vopa.state.va.us

Virginia Beach Office
287 Independence Boulevard - Virginia Beach, VA 23462
757-552-1148 or 800-552-3962
Voice/TTY 757-552-1145
general.vopa@vopa.virginia.gov

Virginia State Resources Listing
http://www.nichcy.org/stateshe/va.htm

PERVASIVE DEVELOPMENTAL DISORDERS

Introduction

Pervasive Developmental Disorders (PDDs) is a classification used to describe disorders arising during the first years of life which disrupt various developmental processes (National Dissemination Center for Children with Disabilities [NICHCY], 2001). The diverse expression of symptoms that accompany PDDs may challenge clinicians in diagnosis and treatment. Although children with these conditions may present for evaluation and treatment at any point in the life cycle, parents usually note symptoms as early as infancy and typically onset is prior to three years of age (National Institute of Neurological Disorders and Stroke, 2001). PDDs vary from the majority of recognized mental disorders which generally appear in late adolescence or early adulthood (Volkmar, 1999).

Symptoms of PDD include communication problems, such as using and understanding language; difficulty relating to people, objects, and events; unusual play with toys and other objects; difficulty with changes in routine or familiar surroundings; and repetitive body movements or behavior patterns (National Institute of Neurological Disorders and Stroke, 2001). Table 1 presents the most common characteristics of PDDs.

Children diagnosed with this class of disorders may also exhibit the following characteristics: impairments in social interaction, imaginative activity, verbal and nonverbal communication skills; and participation in activities that tend to be repetitive, and possession of limited number of interests.

Table 1

Characteristics of Pervasive Development Disorders

Impairment in social interaction skills;
Impairment in communication skills; or
Presence of stereotyped behavior, interests, and activities.

Source: NICHCY, January 1998.

Autism is often referred to as a "spectrum disorder," meaning that the symptoms and characteristics of autism can present themselves in a variety of combinations, ranging from extremely mild to quite severe (Autism Spectrum Disorders, 2002). Table 2 identifies all of the umbrella PDD categories, according to the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV).* Two of these—Autistic Disorder and Asperger's Disorder—are covered in this section. Persons needing information on Childhood Disintegrative Disorder and Rett's Disorder, which have a low incidence in children, should research current literature.

Table 2

Types of Pervasive Development Disorders

- **AUTISTIC DISORDER**
- **ASPERGER'S DISORDER**
- **RETT'S DISORDER**
- **CHILDHOOD DISINTEGRATIVE DISORDER**
- **PERVASIVE DEVELOPMENTAL DISORDER NOT OTHERWISE SPECIFIED**

Source: The National Institute of Neurological Disorders and Stroke, 2001.

Etiology

PDDs are believed to be caused by neurological differences that have yet to be fully explained (Stanford University School of Medicine, 2002). Currently, researchers are investigating areas such as neurological damage and biochemical imbalance in the brain. It is understood that these disorders are not caused by any psychological factors (NICHCY, 2001). Although a number of different theories have been put forward, none has withstood close scrutiny. Probably several causes and etiological pathways lead to PDD. There is no reason to suppose there is only one pathway.

Ten years ago, commonly accepted incidence rates ranged from 5-15 individuals per 10,000 (Stanford University School of Medicine, 2002). Today, projected incidence rates range anywhere from 7-48 per 10,000 (Stanford University School of Medicine). There also appears to be a gender difference in autism, with four times more males than females being diagnosed. Autism affects individuals across all racial, ethnic and social groups. Table 3 illustrates these incidence rates.

Table 3

Incidence of Pervasive Development Disorders

- 1 in 1,000 individuals diagnosed the "classic" autism;
- 1 in 500 individuals within the autism spectrum, including PDDs; and
- 1 in 200 individuals within the autism spectrum, including PDD and Asperger's.

Source: National Autism Society of America Conference, Dr. Marie Bristol-Powers from the National Institute of Child Health and Human Development, as cited by the Autistic Children's Activity Program, 2002.

Categories

Each of the PDDs has specific diagnostic criteria as outlined by the American Psychiatric Association in its *DSM-IV*. Although the term *pervasive development disorders* was introduced well over a decade ago, it is unfamiliar to lay people, as well as policy makers and health administrators (Rimland, 1993). Rimland notes that classifying these disorders as PDDs may prove to be confusing due to the fact that autism is a specific, rather than a pervasive, disorder characterized by deficits in social and cognitive functioning. However, there is a need for a classification title due to the fact that most children have some form of PDD rather than specifically being diagnosed with autism or Asperger's Disorder (Rimland).

The intent behind the *DSM-IV* is that the diagnostic criteria not be used as a checklist, but rather as a guideline for diagnosing pervasive developmental disorders. There are no clearly established guidelines for measuring the severity of a child's symptoms. In many situations, it is difficult to isolate the characteristics of autism from a PDD not otherwise specified (PDDNOS) (Boyle, as citied in the NICHCY, 2001). Accordingly, a child may be diagnosed by one practitioner as having autistic disorder and by another practitioner as having PDDNOS.

Generally, a child is diagnosed as having PDDNOS if he has have some behaviors that are seen in autism, but does not meet the full *DSM-IV* criteria for having autistic disorder (NICHCY, 2001). Furthermore, although the terminology and diagnostic process for these disorders can be confusing, the treatment of the child will be consistently based on his diagnosis.

Table 4 outlines major points which help distinguish the difference between the specific diagnoses.

AUTISTIC DISORDER

Autistic disorder is the most common of the PDDs. Manifestations of the disorder vary greatly, depending on the developmental level and chronological age of the individual (NICHCY, 1998).

By definition, the onset of autistic disorder is prior to age three years and it follows a continuous course (NICHCY, 1998). In school-age children and adolescents, developmental gains in some areas are common, e.g., increased interest in social functioning as the child reaches school age. Some individuals deteriorate behaviorally during adolescence, whereas others improve (NICHCY).

Table 4

Distinguishing Characteristics of Pervasive Development Disorders

- **AUTISTIC DISORDER** - Impairment in social interaction, communication, and imaginative play prior to age three years. Stereotyped behaviors, interests and activities.
- **ASPERGER'S DISORDER** - Characterized by impairments in social interactions and the presence of restricted interests and activities, with no clinically significant general delay in language, and testing in the range of average to above average intelligence.
- **PERVASIVE DEVELOPMENTAL DISORDER NOT OTHERWISE SPECIFIED** (commonly referred to as atypical autism) - a diagnosis of PDDNOS may be made when a child does not meet the criteria for a specific diagnosis, but there is a severe and pervasive impairment in specified behaviors.
- **RETT'S DISORDER** - A progressive disorder which, to date, has occurred only in girls. Characterized by a period of normal development and then loss of previously acquired skills, loss of purposeful use of the hands, replaced with repetitive hand movements beginning at the age of 1-4 years.
- **CHILDHOOD DISINTEGRATIVE DISORDER** - Characterized by normal development for at least the first two years, significant loss of previously acquired skills.

Source: American Psychiatric Association, as cited by the Autism Society of America, 2002.

The essential features of Autistic Disorder are the presence of markedly abnormal or impaired development in social interaction (Murphy, 2001). Older children may fail to develop nonverbal forms of communication and do not have interest in forming friendships. There may be a lack of sharing, enjoyment, interests, or achievements with other people (NICHCY, 1998).

There is an increased risk of autistic disorder among siblings of individuals with the disorder. Rates of the disorder are four to five times higher in males than in females (*DSM-IV,* as cited in the PDD Support Page, 2000). Females with the disorder are more likely, however, to exhibit more severe mental retardation (NICHCY, 1998).

The number of reported autism cases has increased by 173 percent in the past decade, according to the Autism Program of Virginia (Associated Press, 2003). In Virginia, the incidence of autism between 2000 and 2004 increased by 78 percent (Associated Press).

Table 5

Prevalence of Autism

- Autism affects an estimated 1 in 250 births.
- It is estimated that as many as 1.5 million Americans today have a form of autism.
- Autism is growing at a rate of 10-17 percent a year.

Source: Autism Society of America, 2002.

Diagnosis

There are no medical tests for diagnosing autism, thus an accurate diagnosis must be based on observation of the child's communication, behavior, and developmental levels (Autism Society, 2002). However, because many of the behaviors associated with autism are shared by other disorders, various medical tests may be ordered to rule out or identify other possible causes of the symptoms being exhibited (Murphy, 2001).

Since the characteristics of the disorder vary so much, ideally a child should be evaluated by a multidisciplinary team, which may include a neurologist, psychologist, developmental pediatrician, speech/language therapist, learning consultant, or another professional knowledgeable about autism (Autism Society of America, 2002).

Identifying children who have, or may develop, autism is difficult (Barclay, 2004). Baron-Cohen and colleagues reported in the British Journal of Psychiatry, the absence of three key activities at the age of 18 months can be indicative of autism (Barclay). The three activities are protodeclarative pointing (pointing the index finger to indicate interest in an object), gaze response (the child looks at an object the interviewer describes), and pretend play (the child acts out pretend activities) (Barclay).

Table 6 outlines the diagnostic criteria for autistic disorder.

Etiology

Uncertainty surrounding the etiology of autism has stalled primary prevention efforts (Newschaffer, 2003). Previous studies have focused on the genetic aspect of autism; however, gene-finding studies are far from congruent and no model has yet explained the gender disparity and variable phenotype across family datasets (Newschaffer).

Possible nonheritable risk factors are pre- and perinatal maternal infections, birth complications, chemical exposure, and childhood vaccinations (Newschaffer, 2003). Maternal infections and birth complications associated with autism has been reported with some consistency (Newschaffer). Most recently, attention has been focused on childhood immunizations being associated with autism (Newschaffer). Three expert studies released in 2000-2001 have concluded that the data available did not support a link between the Measles-Mumps-Rubella (MMR) vaccination and autism (Newschaffer).

Another recent study tested the levels of testosterone in the amniotic fluid and the impact these levels may have on the social development of a child (Lutchmaya, 2002). The study has identified a link between prenatal hormones and social development (Lutchmaya). The findings have implications for understanding abnormal conditions of social development, such as autism (Lutchmaya).

A study from Heidi Larsson and colleagues in Denmark determined that premature births, pregnancy complications are associated with an increased risk for developing autism (Kaiser Family Foundation, 2005).

As shown in Table 7, a study at the University of Western Australia by Emma J. Glasson, Ph.D., has shown an association between difficult births and the development of autism later in life (DeNoon, 2004). Not every autistic child had a difficult birth but, as a group, autistic children have had more birth complications than those of other children (DeNoon). Some of the birth problems associated with autistic children include: near-miscarriage; induced labor; labor of less than one hour; fetal distress; and cesarean section (DeNoon). Also, as a group, the mothers of

autistic children give birth at an older age (DeNoon). The study stresses that these factors did not cause autism (DeNoon).

Table 6

Diagnostic Criteria for Autistic Disorder

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):
   1. Qualitative impairment in social interaction, as manifested by at least two of the following:
      a) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction;
      b) failure to develop peer relationships appropriate to developmental level;
      c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest);
      d) lack of social or emotional reciprocity;
   2. Qualitative impairments in communication as manifested by at least one of the following:
      (a) delay in or total lack of development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime);
      (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others;
      (c) stereotyped and repetitive use of language or idiosyncratic language
      (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level;
   3. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
      (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus;
      (b) apparently inflexible adherence to specific, nonfunctional routines or rituals;
      (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements);
      (d) persistent preoccupation with parts of objects;

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.

Source: American Psychiatric Association, 1994, as cited in NICHCY.

Another study conducted by a team of brain scientists at Carnegie Mellon University has discovered findings which led to the "Underconnectivity Theory," which states that autism is a system-wide brain disorder that limits the coordination and integration among different areas of the

brain (The PEATC Press, 2004). This suggests treatment of autism as a system-wide disorder, rather than for a localized region or particular area of the brain (The PEATC Press).

Comorbidity

Research has revealed that autism has familial links with other mental disorders, notably depression, obsessive-compulsive disorder, and motor tics (The Chemical, Industrial & Pharmaceutical Laboratories [CIPLA], 2000). Depression is more frequent in immediate relatives and pre-dates the arrival of the child with autism. However, its occurrence is linked to the development of depression in the child with autism. It may appear that some children with autism appear to have mental retardation, language disorders or even congenital deafness or blindness and these conditions do co-occur with autism (Murphy, 2001). Epilepsy occurs in up to 30 percent of those with autism and can amplify their symptoms. Research has been conducted which suggests that epilepsy might cause or mimic autism (CIPLA).

Table 7

Autism Associated with Premature Births and Pregnancy Complications

- Infants born before 35 weeks gestation, as opposed to 37 to 42 weeks gestation, are 2.5 times more likely to be diagnosed with autism.
- Infants born in a breech position are 1.63 times more likely to be diagnosed with autism.
- Infants who score 7 or lower on the Apgar test, composite test to measure heart rate, respiratory effort, muscle tone, skin color and reflex irritability five minutes after birth are 1.89 times more likely to develop autism.
- Infants born to parents with no psychiatric disorder history are 3.41 times less likely to develop autism.
- There is a significant association between high parental age (over 30 for the mother and 35 or older for the father) and autism.

Source: The Henry J. Kaiser Family Foundation, 2005.

General Treatment Principles

Due to the severity of autistic disorder, the need for a high level of service, and corresponding high costs, there has been a continuing search for effective treatments. The goal of treatment for autistic disorder is to promote the child's social and language development and minimize behaviors that interfere with the child's functioning and learning (U.S. Department of Health and Human Services, 1999). Intensive special education programs that are sustained over time and behavior therapy implemented early in life can aid the autistic child in acquiring language and other learning. Special education programs in highly structured environments also aid the patient in gaining social and job skills. Only recently have studies shown positive outcomes for very young children with autism (U.S. Department of Health and Human Services).

Treatment Guidelines

Although there is no proven treatment for autism, research has demonstrated the efficacy of applied behavioral methods in reducing inappropriate behavior and in increasing communication, learning, and appropriate social behavior (U.S. Department of Health and Human Services, 1999). Because of the spectrum nature of autism and the many behavioral combinations which can occur, no one approach is effective in alleviating symptoms of autism in all cases.

The goals of treatment for autism are to improve language and social skills, decrease problem behaviors and to support parents and families (Prater, 2002). Early intervention for treatment of

autistic children is critical, given that children who begin treatment at a young age have significantly better outcomes (Prater).

The treatment information discussed in the following paragraphs has been compiled and analyzed by the Autism Society of America (2002).

> Studies show that individuals with autism respond well to a highly structured, specialized education program, tailored to their individual needs. A well-designed intervention approach may include some elements of communication therapy, social skill development, sensory integration therapy and applied behavior analysis, delivered by trained professionals in a consistent, comprehensive and coordinated manner. The more severe challenges of some children with autism may be best addressed by a structured education and behavior program which contains a one-on-one teacher to student ratio or small group environment. However, many other children with autism may be successful in a fully inclusive general education environment with appropriate support. In addition to appropriate educational supports in the area of academics, students with autism should have training in functional living skills at the earliest possible age.
>
> To be effective, any approach should be flexible in nature, rely on positive reinforcement, be re-evaluated on a regular basis, and provide a smooth transition from home to school to community environments. A good program will also incorporate training and support systems for parents and caregivers, with generalization of skills to all settings.

Promising Treatments

The following section is a summary of the treatments highlighted by Families for Early Autism Treatment, Inc. which show promising results in the treatment of autistic disorder in children.

Educational and Communication Focused Interventions

The TEACCH (Treatment and Education of Autistic and related Communication handicapped CHildren) approach recognizes differences in the rate and nature of development among children. Teaching objectives are based on individual developmental patterns. The guiding principles of the TEACCH program are to provide strategies that support the person throughout the lifespan; facilitate autonomy at all levels of functioning; and accommodate such strategies to accommodate individual needs.

Natural Language Methods

Significant gains for teaching language, including speech intelligibility, have occurred in the past few years. Speech and language pathologists often integrate communication training with the child's behavior program to provide a coordinated opportunity for structured and naturalistic language learning. The chief focus of skill development for children with autism is communication, because it is the most pervasive area of developmental delay. Instruction in communication is designed to provide a generative tool that will serve many immediate needs throughout the child's life.

Picture Exchange Communication System

The Picture Exchange Communication System (PECS) is a communication-training program that helps children with autism acquire functional communication skills. Children using PECS are taught to give a picture of a desired item to a communicative partner in exchange for the item, thus initiating a communicative act for an actual outcome.

Behavior Intervention

Effective treatment for severe behavioral disorders requires early intervention during all or most of the child's waking hours, addressing all significant behaviors in all of the child's environments by all significant persons for many years (Lovaas, as cited by the Autism Society of America, 2002). This best describes the basic idea of intensive behavior intervention. The goal is to teach the child how to learn by focusing on developing skills in attending, imitation, receptive/expressive language, pre-academics, and self-help. However, this method has been controversial and the research findings have been considered by some to be difficult to replicate (Mudford et al., as cited by Elder, 2002).

Educational Implications

Early diagnosis and appropriate educational programs are important to children with autism or PDD (NICHCY, 1998). From the age of three, children with autism and PDD are eligible for an educational program appropriate to their individual needs. Behavior and communication problems that interfere with learning frequently require the assistance of a knowledgeable professional in the autism field who develops and helps to implement a plan which can be carried out at home and school (Autism Society of America, 2002).

Pharmacological Treatments

Antipsychotic medications are often used to treat severe aggression exhibited by children with autism. Numerous controlled clinical trials cited by Elder (2002) and referred to in this section have shown that various types of antipsychotics are efficacious in treating hyperactivity, excitability, and stereotyped behaviors. Psychostimulants have also been used for years to treat the hyperactivity and inattention common in autism. Of all pharmacological information reviewed, the findings associated with psychostimulant trials and the reports of clinicians and families are mixed. However, studies have shown that many children with autism who present with extreme hyperactivity do benefit from psychostimulants, although, individual reactions vary greatly, and many families oppose using these medications.

Serotonin-affecting medications have been shown to be effective in treating symptoms of autistic disorder and have shown to be effective in reducing self-injury, increasing socialization, and decreasing anxiety. It has been estimated that 80 percent of the psychopharmacological interventions used to treat children have unfortunately not been empirically tested on children (Riddle, Kastelic & Frosch, as cited by Elder). It is not surprising that there are questions about the use of these interventions.

Unproven Treatments

The understanding of autism has grown tremendously since it was first discovered. Although there is no cure, increased knowledge about the disorder has led to the development of better treatments. Because of the rising prevalence of autism, more research is needed to increase knowledge about effective treatment interventions.

The following are treatments where there is conflicting data regarding effectiveness.

Auditory integration training	Steroids
Facilitated communication	Antifungal medications
Hyperbaric oxygen	Detoxication; chelation
Secretin	Dietary manipulations (elimination of gluten, casein, etc.)
Vitamin B6 and magnesium	Hippotherapy; dolphin therapy
Dimethylglycine (DMG)	Sensory integration therapy
Intravenous immunoglobulin (IVIG)	Craniosacral therapy
AZT (zidovudine, Retrovir)	Behavioral optometry

Source: Kallen, R. J., M.D., 2000.

Chelation therapy—a series of intravenous infusions containing disodium EDTA and various other substances—is another unproven treatment option for autism (National Council Against Health Fraud, 2002). Chelation therapy causes heavy metals, such as mercury, to bind to the chelation and for removal from the body (Tilton, 1998). In theory, once the mercury has been removed, the effects of the toxin are eliminated (Tilton). To date, there has been no well-designed research to show that chelation is successful in the treatment of autism (National Council Against Health Fraud). Using chelation as opposed to a proven treatment can result in fatalities (National Council Against Health Fraud).

ASPERGER'S DISORDER

Asperger's Disorder is a type of PDD characterized by problems in development of social skills and behavior (American Academy of Child & Adolescent Psychiatry [AACAP], 1999). Asperger's is commonly recognized after the age of three (National Institute of Neurological Disorders and Stroke, 2001). In the past, many children with Asperger's Disorder were diagnosed as having autism or other disorders. While autism and Asperger's have certain similarities, there are also several important differences (AACAP).

Clinically, the difference between autism and Asperger's Disorder is based upon the severity and in the qualitative expression of the criteria (Bloch-Rosen, 1999). Both syndromes are characterized by social interaction deficits, impaired communication skills, and unusual or bizarre behaviors (Frith, as cited in Bloch-Rosen, 1999). However, motor deficits are more pronounced in Asperger's Disorder and its onset is later, with the child exhibiting social skill deficiencies without grossly impaired language skills (Frith, as cited in Bloch-Rosen). Additionally, children with Asperger's Disorder may exhibit a variety of characteristics and the disorder can range from mild to severe. Children may also have difficulties with change and prefer sameness (Kirby, 2001). Other symptoms include sensitivity to sounds, tastes, smells, and sights, a preference for soft clothing, certain foods, and intolerance to certain sounds or lights (Kirby).

Asperger's Disorder was not added to the *DSM-IV* until 1994 and only in the past few years has it been recognized by both professionals and parents (Kirby, 2001). Of all of the PDDs included in the *DSM-IV*, Asperger's Disorder has been the most debated (AACAP, 1999). Today, children diagnosed with Asperger's would have been diagnosed with autism prior to its addition in the *DSM-IV*. The *DSM-IV* classification defines Asperger's on the basis of the presence of qualitative impairments in social interaction like those observed in autism, but without the significant delay in language or cognitive behavior (AACAP).

Diagnosis

Diagnosis of Asperger's Disorder requires the participation of professionals with different areas of expertise. Klin & Volkmar (1995) have stated that this is particularly true with overall developmental functioning, neuropsychological features, and behavioral status. Accordingly, clinical assessment is most effectively conducted by an experienced interdisciplinary team. In the majority of cases, a comprehensive assessment will involve the following components: history; psychological assessment; communication and psychiatric assessments; further consultation as needed; parental conferences; and recommendations. Also, due to the lack of awareness many service providers may have about Asperger's Disorder, it is beneficial for evaluators assessing the child to maintain contact with the professionals who are responsible for obtaining and employing the treatment interventions.

It is important to encourage parental participation in the evaluation of the child. One reason is to demystify the assessment procedures and to make parents an integral part of the assessment and treatment planning. At this time, parents can be informed and educated about the lack of knowledge about Asperger's Disorder and the confusion surrounding the disorder.

Comorbidity

There are few studies regarding co-morbid psychiatric disorders with children diagnosed with Asperger's Disorder. However, research has shown an association between Asperger's Disorder and Tourette's Syndrome (Bloch-Rosen, 1999). Comorbidity of certain conditions may vary according to the child's developmental level. For example, Attention Deficit Hyperactivity Disorder (ADHD) appears to be more common in younger children diagnosed with Asperger's Disorder, while depression may be more apt to emerge in adolescence (Bloch-Rosen). Children with Asperger's Disorder are also at risk for other psychiatric problems, including schizophrenia (AACAP, 1999). Mental retardation is not usually observed in children diagnosed with Asperger's Disorder (ACCAP).

Children with Asperger's have also been identified as having postural instability and motor clumsiness (Blacher et al., 2003). Children with Asperger's can also have silent and independent reading levels below grade level and exhibit problems answering inferential comprehension questions (Blacher et al.).

Other disorders which may co-occur with Asperger's Disorder include obsessive-compulsive disorder, depression and ADHD (Bloch-Rosen, 2003). A recent study of Asperger's Disorder shows that children diagnosed with Asperger's are more likely to have ADHD, and adolescents or adults with Asperger's are more likely to suffer from depression (Blacher et al., 2003). Obsessive behavior and restrictive interests are both characteristics of Asperger syndrome, which can make it difficult to distinguish between Asperger's and other disorders which are also characterized by obsessive-compulsive behaviors (Blacher et al.).

General Treatment Principles

Because of the scarcity of research on interventions, there are no evidence-based practices available for treating children with Asperger's Disorder. However, there are guiding principles which may be offered, based on informal observations made by experienced clinicians, intervention strategies used with individuals with high-functioning autism, and suggested interventions for individuals with Nonverbal Learning Disabilities syndrome (Klin & Volkmar, 1995).

Treatment for Asperger's, as for all PDDs, should be focused and individualized in order to appropriately relate to the full range of impairments (AACAP, 1999). Treatment planning should include provisions for structured opportunities for learning, along with appropriate generalization of what is being learned in order to ensure comprehension (AACAP).

Specific intervention, including teaching practices and approaches, behavioral management techniques, strategies for emotional support, and activities intended to foster social and communication competence, should be conceived and implemented in a thoughtful, consistent and individualized manner (Klin & Volkmar, 1995). It is critical to involve parents in the intervention process along with other social agents (Blacher et al., 2003). Recently, success has been shown in training parents to manage the behavior of children with Asperger's Disorder (Blacher et al.).

Promising Treatments

The following is a summary of the treatments indicated to have promising results for children having Asperger's Disorder.

Educational Interventions

Educational interventions are necessary in treating a child with Asperger's Disorder. Moreover, because securing educational and related services may be difficult due to lack of knowledge about Asperger's, the parents and clinician should work closely together to supply the child and school personnel with the necessary information and help.

Because these children generally do well with memory tasks, teaching in a rote fashion may help the child to retain the information presented (National Alliance for the Mentally Ill [NAMI], 2002).

The most important component of the educational curriculum and treatment strategy involves enhancing communication and social competence (Klin & Volkmar, 1995). Accordingly, the curriculum content for the child should be decided based on long-term goals, so that the utility of each element is evaluated in terms of its long-term benefits for the child's socialization skills, vocational potential, and quality of life.

Behavior Management

Children with Asperger's exhibit various challenging behaviors. Therapeutic and educational strategies can be beneficial, and training is favorable for assisting the child in recognizing troublesome behaviors (Klin & Volkmar, 1995). Setting appropriate limits in dealing with problematic behaviors such as obsessive behavior, excessive interrupting, or any other disruptive behavior can also be very effective. Moreover, because a child with Asperger's Disorder may require assistance with making safe and appropriate choices, behavior management techniques teach the child how to consider alternative actions (Klin & Volkmar).

As children diagnosed with Asperger's Disorder age, they may demonstrate symptoms of despondency, negativism, and clinical depression due to their feelings of inadequacy in social situations and failures in maintaining relationships (Klin & Volkmar, 1995). Practicing communication and social skills prepares the child to deal with social and interpersonal expectations. This, in turn, enhances the possibility of establishing friendships (Klin & Volkmar).

Psychotherapy

Although insight-oriented psychotherapy has not been shown to be very helpful, it does appear that fairly focused and structured counseling can be useful for individuals with Asperger's, particularly when the child is experiencing overwhelming sadness or negativism, anxiety, family functioning, frustration about vocational goals and placement, and/or ongoing social adjustment.

Unproven Treatments

No drugs are used routinely to treat Asperger's Disorder. Because little information about pharmacological interventions with individuals with Asperger's is available, pharmacological interventions with young children are probably best avoided (Klin & Volkmar, 1995). Specific medication might be indicated if Asperger's is accompanied by debilitating depressive symptoms, severe obsessions and compulsions, or a thought disorder. Pharmacologic interventions are used to treat co-morbid disorders, including attention problems, mood disorders, dysthymia, bipolar disorder, and obsessive-compulsive disorder (Klin & Volkmar).

Recent studies suggest Serotonin Selective Reuptake Inhibitors (SSRIs) help treat repetitive behaviors, impulsivity, irritability, and aggression (Brasic, 2002). Controlled clinical trials, based on well-diagnosed populations, are needed to confirm the impression that SSRIs and atypical neuroleptics may alleviate core symptoms of Asperger's and related conditions (Brasic). For further information on the use of SSRIs, see "Antidepressants and the Risk of Suicidal Behavior" section in the *Collection.*

The majority of recent intervention research for Asperger's Disorder pertains to pharmacological treatments (Blacher et al., 2003). Research has shown that dopamine blocking agents have been used successfully to treat symptoms of aggression and anxiety (Blacher et al.). Challenges of utilizing pharmacological treatments for Asperger's include the possibility that individuals may have difficulty tolerating side effects that would be minor to most people and may have difficulty identifying and communicating to others their internal mood states and emotions (Blacher et al.).

Conclusion

Early intervention and treatment are the single most important efforts a parent can make to influence the outcomes for a child with PDD. Proper assessment is crucial in the diagnosis and treatment of PDD. With appropriate intervention, many associated behaviors can be modified and effective strategies can be instilled to allow the child to cope with PDD.

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Virginia Resources

Autism Outreach, Inc.
ABA/VB Consulting Services – Virginia, Washington, DC, Maryland
703-669-4972
http://www.autismoutreach.org

Commonwealth Autism Service
2201 West Broad Street, Suite 107 - Richmond, VA 23220
800-649-8481
Email: information@autismva.org
http://autismva.org

Everybody's Talking
http://www.vcuhealth.org/vtcc/everybodytalking

Parent Educational Advocacy Training Center (PEATC)
6320 Augusta Drive, Suite 1200 - Springfield, VA 22150
Email: partners@peatc.org
703-923-0010 or in VA only 800-869-6782 —Latino Outreach: 703-569-6200
http://www.peatc.org

People with Attention and Developmental Disabilities Association (PADDA)
813 Forrest Drive, Suite 3 - Newport News, VA 23606
Email: amoore@padda.org
888-33PADDA or 757-591-9119
http://www.padda.org

The Virginia Autism Resource Center
http://www.varc.org
Richmond Office: 4100 Price Club Blvd. - Midlothian, VA 23112
Email: info@varc.org
804-674-8888 x 5162 or 877-667-7771
Winchester Office: P.O. Box 2500 - Winchester, VA 22604
Email: shamsi@varc.org
540-542-1723 x 6405

Virginia Department of Education
Office of Special Education and Student Services
P.O. Box 2120 - Richmond, VA 23218-2120
804-225-2402
http://www.pen.k12.va.us/VDOE/sess

Virginia Department of Health
Child & Adolescent Health, Division of Child & Adolescent Health
109 Governor Street, 8th Floor - Richmond, VA 23219
804-864-7685
http://www.vdh.state.va.us

Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services
P.O. Box 1797 - Richmond, VA 23218
804-786-3921
http://www.dmhmrsas.virginia.gov

The Virginia Institute of Autism
1414 Westwood Road - Charlottesville, VA 22903-5149
Email: information@viaschool.org
434-923-8252
http://www.viaschool.org

Virginia Kids
http://www.virginiakids.net

Virginia Commonwealth University Health System
Virginia Treatment Center for Children (VTCC)
Autism Center of Virginia/Assessment Clinic for Children with Developmental Disorders
515 N. 10th Street, Richmond, VA 23219
804-828-4725
http://www.vcuhealth.org/vtcc/index.html

Additional Resources/Organizations
Association of University Centers on Disabilities
301-588-8252
http://www.aucd.org

Autism and PDD Support Network
http://www.autism-pdd.net

Autism Research Institute (ARI)
4182 Adams Avenue, San Diego, CA 92116
619-281-7165
http://www.Autismresearchinstitute.com

Autism Society of America
7910 Woodmont Avenue, Suite 300, Bethesda, MD 20814-3067
301-657-0881 or 1-800-3-AUTISM
http://www.Autism-society.org

Centers for Disease Control and Prevention
Autism Information Center
http://www.cdc.gov/ncbddd/dd/ddautism.htm

HealthyPlace.com
http://www.healthyplace.com/site/autistic_disorder.asp

MAAP Services
P.O. Box 524 - Crown Point, IN 46308
219-662-1311
http://www.maapservices.org

National Alliance for Autism Research
99 Wall Street, Research Park - Princeton, NJ 08540
888-777-NAAR
http://www.naar.org/about/contact.asp

National Dissemination Center for Children with Disabilities (NICHCY)
P.O. Box 1492 - Washington, DC 20013-1492
Email: nichcy@aed.org
202-884-8200 or 800-695-0285
http://www.nichcy.org

National Institutes of Health (NIH)

National Institute on Deafness and Other Communication Disorders
31 Center Drive, MSC 2320 - Bethesda, MD 20892-2320
Email: lel@ms.nidcd.nih.gov
800-241-1044 - TTD/TTY: 241-1055
http://www.nidcd.nih.gov

National Institute of Child Health and Human Development
http://www.nichd.nih.gov

National Institutes of Health (NIH)

National Institute of Mental Health (NIMH)
6001 Executive Blvd., Rm. 8184, MSC 9663 - Bethesda, MD 20892-9663
Email: nimhinfo@nih.gov
866-615-6464
http://www.nimh.nih.gov

Online Asperger Syndrome Information and Support

http://www.udel.edu/bkirby/asperger

Pervasive Developmental Disorders Screening

Test-Stage I (PDDST), Porter Psychiatric Institute
415-476-7385

ADJUSTMENT DISORDERS

Introduction

An adjustment disorder is a behavioral response to a stressful event or variation in a child or adolescent's life that is not a healthy response to the event or change (The Medical Center Online, 2002). Youth who experience distress in excess of what is expected as a response to a stressor may even experience significant impairment in normal daily functioning and activities (Institute for Health, Health Care Policy and Aging Research, 2002).

Adjustment disorders in children are created by factors similar to those found in adults. Four factors that may contribute to the development of adjustment disorders are the nature of the stressor, vulnerabilities of the child, intrinsic factors, and extrinsic factors (Benton & Lynch, 2002).

In order to be considered and diagnosed as an adjustment disorder, the child's reaction must occur within three months of the identified event (The Medical Center Online, 2002). Typically, the symptoms do not last more than six months, and the majority of the children quickly return to normal functioning (United Behavioral Health, 2002). Adjustment disorders differ from post-traumatic stress disorder (PTSD) in that PTSD usually occurs in reaction to a life-threatening event and may be longer-lasting (Access Med Health Library, 2002). Moreover, the symptoms are not caused by another mental health disorder (Wood, 2003).

In 1997, the U.S. Department of Health and Human Services, the Substance Abuse and Mental Health Service Administration (SAMHSA) and Center for Mental Health Services conducted a Client/Patient sample survey of 8,000 children in mental health facilities. These children were randomly selected and surveyed in order to calculate national estimates regarding mental health services. The findings of the study indicated that 16 percent of the children who were admitted had an adjustment disorder (Institute for Health, Health Care Policy and Aging Research, 2002).

The following information is attributed to the University of Chicago Comer Children's Hospital, Adjustment disorders occur equally in males and females (2005).

> Adjustment disorders occur at all ages; however, it is believed that characteristics of the disorder are different in children and adolescents than they are in adults. Differences are noted in the symptoms experienced, severity and duration of symptoms, and in the outcome. Adolescent symptoms of adjustment disorders are more behavioral such as acting out, while adults experience more depressive symptoms.

Classifications

The following six types of adjustment disorders are listed in the *Diagnostic and Statistical Manual, 4th Edition (DSM-IV)*:

- Adjustment disorder with depressed mood: Symptoms are that of a minor depression.
- Adjustment disorder with anxious mood: Symptoms of anxiety are dominant.
- Adjustment disorder with mixed anxiety and depressed mood: Symptoms are a combination of depression and anxiety.
- Adjustment disorder with disturbance of conduct: Symptoms are demonstrated in behaviors that break societal norms or violate the rights of others.
- Adjustment disorder with mixed disturbance of emotions and conduct: Symptoms include combined affective and behavioral characteristics with mixed emotional features and with disturbance of conduct.
- Adjustment disorder not otherwise specified: This residual diagnosis is used when a maladaptive reaction that is not classified under other adjustment disorders but occurs in response to stress.

Source: Benton & Lynch, 2002.

Chart 1 presents further information about these classifications.

Etiology

Adjustment disorders are a behavioral or emotional reaction to an outside stressor and, accordingly, there is no single trigger between the stressor and the child's reaction to it (The Medical Center Online, 2002). Furthermore, because children possess varying dispositions, as well as different vulnerabilities and coping skills, it is impossible to attribute a single cause to this mental disorder. Thus, the developmental stage of the child and the strength of their support system may influence their reaction to a stressor (The Medical Center Online). There is no evidence to indicate that biological factors influence the cause of adjustment disorders. The common thread in anxiety disorders is stress as the precipitating factor (Benton and Lynch, 2002).

According to Benton and Lynch (2002), the most important factor in the development of an adjustment disorder is the vulnerability of the child. Vulnerability depends on the characteristics of both the child and the child's environment. A reliable assessment is not available to assess this variable.

Diagnosis

Children with adjustment disorder may have a wide variety of symptoms. Symptoms normally include several of those shown in Table 1.

Because most features of adjustment disorders are subjective (e.g., the stressor, the maladaptive reaction, the accompanying mood and feature, and the time and relationship between the stressor and the response), these disorders can be very difficult to diagnose (Benton and Lynch, 2002). A qualified mental health professional should assess the child for an adjustment disorder following a comprehensive psychiatric evaluation and interview with the child and the family (The Medical Center Online, 2002). Specifically, a personal history appraising development, life events, emotions, behaviors, and the identified stressful event is performed during the assessment process in order to correctly diagnosis the adjustment disorder (The Medical Center Online).

Table 1

Symptoms of Adjustment Disorders

Hopelessness	Withdrawal
Sadness	Inhibition
Crying	Truancy
Anxiety	Vandalism
Worry	Reckless driving
Headaches or stomachaches	Fighting
	Other destructive acts

Source: Turkington, 1995.

Table 2

Characteristics of Adjustment Disorders

- Adjustment disorders occur equally in males and females.
- Adjustment disorder stressors and symptoms may vary based on cultural influences.
- The characteristics of adjustment disorder in children differ from those in adults.
- Adolescent symptoms are more behavioral.
- Adult symptoms are more depressive.

Source: The Medical Center Online, 2002.

Symptoms of Adjustment Disorders

According to the University of Chicago Comer Children's Hospital, in adjustment disorders, the reaction to the stressor is beyond a normal reaction, or the reaction significantly interferes with social, occupational, or educational functioning (2005). There are six subtypes of adjustment disorder that are based on the type of the major symptoms experienced. However, in children and adolescents, there may be a predominance of mixed rather than discrete symptom presentations (Newcorn & Strain, 1992). While each child may experience symptoms differently, the most common symptoms of each of the subtypes of adjustment disorder are described in Chart 1.

Chart 1

Common Symptoms of Adjustment Disorders

Adjustment disorder with depressed mood
- depressed mood
- tearfulness
- feelings of hopelessness

Adjustment disorder with anxiety
- nervousness
- worry
- jitteriness
- fear of separation from major attachment figures

Adjustment disorder with anxiety and depressed mood
A combination of symptoms from both of the above subtypes is present (depressed mood and anxiety).

Adjustment disorder with disturbance of conduct
- violation of the rights of others
- violation of societal norms and rules (truancy, destruction of property, reckless driving, fighting)

Adjustment disorder with mixed disturbance of emotions and conduct
A combination of symptoms from all of the above subtypes are present (depressed mood, anxiety, and conduct).

Adjustment disorder unspecified
- Reactions to stressful events that do not fit in one of the above subtypes are present.

Reactions may include behaviors such as social withdrawal or inhibitions to normally expected activities (i.e., school or work).

Source: The University of Chicago Comer Children's Hospital, 2005.

Clinical symptoms in children and adolescents differ from those in adults and elderly persons (Benton & Lynch, 2005). Research has revealed that, in children and adolescents, more serious mental illnesses were present at five years of follow-up (Andreasen & Hoenk, as cited by Benton & Lynch).

Comorbidity

Benton & Lynch (2002) indicate that adjustment disorders are most likely to occur with personality disorders, anxiety disorders, affective disorders, and psychoactive substance abuse disorder. More studies that focus on the association between adjustment disorders and other mental disorders, including substance abuse disorders, are needed. In children, adjustment disorders are also most likely to occur with conduct or behavioral problems (Wood, 2003). Patients with adjustment disorders may engage in deliberate self-harm at a rate that surpasses most other disorders and may be at an increased risk for substance abuse disorders (Benton & Lynch, 2005).

Promising Treatments

There have been no significant studies conducted to assess the effectiveness of treatment for adjustment disorders. However, research has been conducted regarding the age of the child and its impact upon treatment results. Andreasen and Hoenk, as cited by Benton and Lynch (2002), reported that, in children and adolescents, more serious mental illnesses were present at five years following treatment for adjustment disorders.

However, the consensus on treating adjustment disorders is that, because an adjustment disorder is a psychological reaction to a stressor, the stressor must be identified and communicated by the child (Benton and Lynch, 2002). If the stressor is "eliminated, reduced, or accommodated" (Strain, as cited by Benton and Lynch), the child's maladaptive response can also be reduced or eliminated. Accordingly, treatment of adjustment disorder usually involves psychotherapy that seeks to reduce the stressor, remove the stressor, or improve coping ability.

Treatments for adjustment disorders must be customized to the needs of the child based on the child's age, health and medical history (The Medical Center Online, 2002). Other determining factors include the extent of the symptoms and the subtype of the adjustment disorder.

Psychotherapy

Psychotherapy is the treatment of choice for adjustment disorders, since the symptoms are a direct reaction to a specific stress (Turkington, 1995). However, the type of therapy depends on the needs of the child, with the focus being on addressing the stressors and resolving the problem.

Brief treatment using cognitive-behavioral strategies is the preferred practice (United Behavioral Health, 2002). Cognitive-behavioral approaches are used to improve age-appropriate problem solving skills, communication skills, impulse control, anger management skills, and stress management skills (The Medical Center Online, 2002). Additionally, therapy assists with formatting an emotional state and support systems to enhance adaptation and coping (Benton and Lynch, 2002).

Research conducted by Strain, as cited by Benton and Lynch (2002), suggests that the goals of psychotherapy should include the following:

- Analyze the stressors that are affecting the child, and determine whether they can be eliminated or minimized;
- Clarify and interpret the meaning of the stressor for the child;
- Reframe the meaning of the stressor;
- Illuminate the concerns and conflicts the child experiences;
- Identify a means to reduce the stressor;
- Maximize coping skills; and
- Assist the child to gain perspective on the stressor and manage themselves and the stressor.

Stress management and group therapy are particularly beneficial in cases of high work/family stress. Family therapy is frequently utilized, with the focus being on making needed changes within the family system. These changes may include improving communication skills and family interactions and increasing support among family members (The Medical Center Online, 2002).

Preventive measures to reduce the incidence of adjustment disorders in children are not known at this time. However, early detection and intervention can reduce the severity of symptoms, enhance the child's normal growth and development, and improve the quality of life experienced by children or adolescents with adjustment disorders (The University of Chicago Comer Children's Hospital, 2005).

Pharmacological Treatment

Medication is seldom used as a singular treatment for adjustment disorders because the child requires assistance in coping with the stressor that is causing the maladaptive behavior. However, targeted symptomatic treatment of the anxiety, depression, and insomnia that occur with adjustment disorders may effectively augment therapy, but is not recommended as the primary treatment for adjustment disorders. As cited in Benton and Lynch (2002) in a retrospective study of 72 adolescents having adjustment disorder, the researchers (Ansari & Matar) found that disappointment in relationships was the primary stressor causing the disorder. Accordingly, the symptoms of the disorder must be addressed through psychotherapy, rather than pharmacology.

If a clinician determines that pharmacotherapy is necessary, short-term use of anxiolytics and hypnotics may be beneficial.

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Benton, T.D., & Lynch, J. (2005). EMedicine. Adjustment Disorders. [Online]. Available: http://www.emedicine.com/Med/topic3348.htm. [August 2005].

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Institute for Health, Health Care Policy and Aging Research. (2002). Update: Latest Findings in Children's Mental Health. 1:1. [Online]. Available: http://www.ihhcpar.rutgers.edu. [October 2002].

Newcorn, J., & Strain, J. (1992). Adjustment disorder in children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry.* 31:2, 318-26.

The Medical Center Online. Child and Adolescent Mental Health. (2002). Adjustment Disorders [Online]. Available: http://www.mccg.org/childrenshealth/mentalhealth/index.asp. [October 2002].

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United Behavioral Health. (2002). Preferred Practice Treatment Guidelines. Adjustment Disorders. [Online] Available: http://www.ubhonline.com/html/guidelines/preferredPracticeGuidelines/adjustmentdisorders.html. [November 2002].

University of Chicago Comer Children's Hospital. (2005). Adjustment Disorders. *Child and Adolescent Mental Health Home Page.* [Online]. Available: http://www.uchicagokidshospital.org/online-library/content=P02553. [August 2005].

Wood, D. (2003). Adjustment Disorders. Mental Health Matters. [Online]. Available: http://www.mental-health-matters.com/articles/article.php?artID=50. [August 2005].

Additional Resources/Organizations

Horowitz, Mardi Jon Stress Response Syndromes: PTSD, Grief, and Adjustment Disorders (Hardcover - August 1997).

Luther, S.G., Burack, J.A., & Cicchetti, D. *Developmental Psychopathology: Perspectives on Adjustment, Risk, and Disorder.* London: Cambridge University Press, 1997.

Mentalhealth.Com Website on Adjustment Disorders
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Mental Health Matters – Adjustment Disorders
http://www.mental-health-matters.com/disorders/dis_details.php?disID=2

Newcorn, J.H., & Strain, J. "Adjustment Disorder in Children and Adolescents." *Journal of the American Academy of Child and Adolescent Psychiatry* 31 (March 1992): 318-327.

Noshpitz, J.D., & Coddington, R.D. (Editor). Stressors and the Adjustment Disorders (Wiley Series in General and Clinical Psychiatry) Paperback. 1990.

Psych Forums – Adjustment Disorders http://www.psychforums.com/forums/viewforum.php?f=124

BEHAVIOR DISORDERS

ATTENTION DEFICIT HYPERACTIVITY DISORDER

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is one of several childhood disorders brought into the public arena in recent years. ADHD is the current term for a specific developmental disorder describing specific behavioral difficulties. Children with ADHD experience an inability to sit still and pay attention. ADHD is also characterized by multiple symptoms of persistent and dysfunctional patterns of overactivity, impulsiveness, inattention, and distractibility (Murphy, Cowan & Sederer, 2001).

Table 1

Facts about Attention Deficit Hyperactivity Disorder

- ADHD affects an estimated 4.1% of youths age 9 to 17 in a six-month period.
- About 2 to 3 times more boys than girls have ADHD.
- Children with untreated ADHD have higher than normal rates of injury.
- ADHD often co-occurs with other problems, such as depressive and anxiety disorders, conduct disorder, drug abuse, or antisocial behavior.
- Symptoms of ADHD usually become evident in preschool or early elementary years.
- The disorder frequently persists into adolescence and into adulthood.
- Treatment may be required throughout life.

Source: National Institute of Mental Health, 2000.

Children with ADHD experience harmful consequences as a result of their behavior. They frequently experience peer rejection and academic and social difficulties which may have long-term effects. According to the National Institute of Mental Health (NIMH), these children may have conduct disorders, experience drug abuse, exhibit antisocial behavior, and incur injuries of all sorts. For many individuals, the impact of ADHD continues into adulthood (NIMH, 2000).

ADHD has been given numerous names since it was first documented. Some of these names include Minimal Brain Dysfunction, Hyperkinetic Reaction of Childhood, and Attention-Deficit

Disorder With or Without Hyperactivity (Children and Adults with Attention Deficit Disorders [CHADD], 2001). With the *Diagnostic and Statistical Manual, 4th Edition (DSM-IV)* classification system, the disorder has been renamed Attention Deficit Hyperactivity Disorder. The current name reflects the importance of the inattention characteristics of the disorder, as well as hyperactivity and impulsivity (CHADD).

There are three subtypes of ADHD which are recognized by professionals: predominately hyperactive-impulsive type, predominantly inattentive type, and the combined type (NIMH, 2003). Predominantly hyperactive-impulsive type of ADHD exists when the child or adolescent does not show significant inattention (NIMH). Predominantly inattentive type is based on the child's not showing signs of significant hyperactive-impulsive behavior (NIMH). Predominantly inattentive type is sometimes referred to as ADD, which is an outdated term for the disorder (NIMH). A child with combined type of ADHD displays both hyperactive-impulse and inattentive symptoms (NIMH).

Table 2

Symptoms of ADHD

Signs of Hyperactive-impulsivity
• Feeling restless, fidgeting with hands and feet, cannot sit still
• Running, climbing or restlessness when quiet behavior is appropriate
• Blurting answers before hearing the entire question
• Difficult time taking turns or waiting in line
Signs of Inattention
• Easily distracted by sights and sounds
• Does not pay attention to details and makes careless mistakes
• Rarely follows directions
• Easily loses or forgets things
• Skips from one unfinished task to another

Source: NIMH, 2003.

Etiology

ADHD is one of the best researched disorders in medicine. Studies over the past 20 years involving twins, adoptions, and molecular investigations have revealed that there is a genetic basis for the disorder (MediFocus, 2002). Recent imaging studies have documented the factual etiology of ADHD within specific areas of the brain.

Since ADHD runs in families, inheritance appears to be an important factor. Families with a child diagnosed with ADHD are more likely than those without ADHD offspring to have family members with the disorder. The heritability of ADHD averages approximately 80 percent, rivaling the heritability factor for the trait of height (Barkley, 2001). Several other developmental characteristics are associated with ADHD. Perinatal injury, malnutrition and substance exposure have also been linked to ADHD (Murphy et al., 2001).

A recent brain imaging study has pinpointed where the brains of children with ADHD are different from children who do not have the disorder (Boyles, 2003). This new research can potentially lead to better drugs, as well as behavioral interventions, for children with ADHD

(Boyles). Brain imaging has the potential to allow clinicians to better utilize current therapies used for treatment (Boyles).

Although a diagnostic test for ADHD is not available, there is insurmountable evidence supporting the validity of the disorder (CHADD, 2001). A recent study determined that the process of ADHD diagnosis in the United States takes approximately one year (Reuters, Attention Disorder Diagnosis Often Delayed, 2004). Diagnosing ADHD early can help to prevent long-term effects in adulthood (Reuters).

Comorbidity

According to the NIMH (2000), ADHD is not usually an isolated disorder and comorbidities may complicate research studies. Specifically, ADHD can occur with learning disabilities (15-25 percent), language disorders (30-35 percent), conduct disorder (15-20 percent), oppositional defiant disorder (up to 40 percent), mood disorders (15-20 percent), and anxiety disorders (20-25 percent). Up to 60 percent of children with tic disorders also have ADHD.

Difficulties with memory, cognitive processing, sequencing, motor skills, social skills, modulation of emotional response, and response to discipline are commonly associated with ADHD (NIMH, 2000). Sleep disorders are also more prevalent in children who suffer from ADHD.

There may be a causal relationship between ADHD and seizures (Reuters, ADHD is a Risk Factor for Unprovoked Seizures in Children, 2004). Children diagnosed with ADHD have an increased chance (by 2.5 percent) of experiencing unprovoked seizures (Reuters).

Diagnosis

Some parents notice inattention, hyperactivity and impulsivity in their child before the child is of age to enter school, although these symptoms may go unnoticed until the child runs into problems at school (NIMH, 2003). Diagnosis of ADHD should be made by a professional with training in ADHD or in the diagnosis of mental disorders (NIMH). Those most often trained in diagnosing ADHD include child psychiatrists, psychologists, developmental/behavioral pediatricians, behavioral neurologists and, in some cases, clinical social workers (NIMH).

Before diagnosing a child with ADHD, a specialist needs to first rule out other potential reasons for the child's behavior. ADHD-like behavior may be the result of a sudden change in the child's life, undetected seizures, a middle ear infection that causes hearing problems, medical disorders which affect brain functioning, learning disability, anxiety, or depression (NIMH, 2003). In instances of disruptive behavior, it is critical that the clinician determine if the disruptive behavior is the primary diagnosis or if it is secondary to ADHD (American Academy of Child & Adolescent Psychiatry [AACAP], 1994). If ADHD is the primary cause, it must be diagnosed and treated so the secondary disruptive behavioral disorder can also be successfully addressed (AACAP).

The child will be evaluated by the professional for social adjustment and mental health through interviews of the child's teachers, parents, coaches and/or babysitters (NIMH, 2003). Tests may be given on intelligence and learning achievement to rule out a learning disability (NIMH). A correct diagnosis of ADHD often resolves confusion surrounding the child's problems and lets parents and child move forward knowing what can be done to help.

Treatment

There is no treatment available to cure this disorder but many treatments are available that effectively assist with its management. A wide variety of treatments have been used to treat ADHD. Foremost is education of the family and school staff about ADHD and its management.

Among the treatments that result in the greatest degree of improvement in the symptoms, research strongly supports the use of stimulant medications. Methylphenidate (MPH) is the first-line agent followed by d-amphetamine (Murphy et al., 2001).

Studies on the efficacy of medication and psychosocial treatments for ADHD support the effectiveness of the combination of stimulants and psychosocial treatments for ADHD. Studies also reveal the superiority of stimulants compared to psychosocial treatments (NIMH, 2000).

A Consensus Statement published by NIMH (1998) maintains that psychosocial treatment for ADHD has included a number of behavioral strategies such as contingency management (e.g., point/token reward systems, and timeout) that typically are conducted in the classroom, parent training (where the parent is taught child management skills), clinical behavior therapy (parent, teacher, or both are taught to use contingency management procedures), and cognitive-behavioral treatment (e.g., self-monitoring, verbal self-instruction, problem-solving strategies, self-reinforcement). Clinical behavior therapy, parent training, and contingency management have also produced beneficial effects. Intensive direct interventions in children with ADHD have produced improvements in key areas of functioning. However, no studies have been conducted on some of these intensive interventions or on how these interventions work with medications prescribed for ADHD.

Studies did reveal that the combination of medication and behavioral treatments usually were not much more effective than medication alone. However, combined treatment did result in more improved social skills and accordingly, parents and teachers judged this treatment more favorably. Both medications and combined treatment were superior to routine community care, which often involved the use of stimulants.

Treatment of ADHD requires behavioral, psychological, and education components. Education of the child and family regarding the nature of the disorder and the methods proven to manage the disorder is crucial in its management. Treatment must be provided over long periods to assist those with ADHD in the ongoing management of their disorder.

Pharmacological Treatment

The following is based on information from the National Institute of Health (1998). Stimulants are generally considered to be first line treatment for ADHD and are often prescribed by pediatricians, family physicians, specialized psychiatrists or child psychiatrists.

Short-term trials of stimulants have supported the effectiveness of MPH. Few differences have been found among these stimulants. However, MPH is the most studied and the most often used of the stimulants. For a variety of reasons including side effects, incomplete responses or other circumstances, other medications are often recommended in combination with or following unsuccessful trials of stimulants.

Recently the U.S. Food and Drug Administration (FDA) approved a medication for use in treating ADHD that is not a stimulant (NIMH, 2003). This medication, an atomoxetine, works on the neurotransmitter norepinephrine, as opposed to dopamine, which is what stimulants influence (NIMH). More research is needed to compare the atomoxetine to already available medications, but preliminary evidence suggests that children with ADHD on an atomoxetine exhibit significant improvement in their symptoms (NIMH).

Trials have found beneficial effects on the defining symptoms of ADHD and associated aggressiveness for as long as medication is taken. However, stimulant treatments may not regulate the entire range of behavior problems, and children under treatment may still show a higher level of behavioral problems than children without ADHD. The findings also show that there is little improvement in academic achievement or social skills.

It is critical that all involved with the use of these powerful medications be clear about what the treatment targets are, so a particular medication can be maintained if it is successful and stopped if it is not.

Unproven Treatments

There is a long history of a number of other interventions for ADHD. These include: dietary replacement, exclusion, or supplementation; various vitamin, mineral, or herbal regimens; biofeedback; perceptual stimulation; and a host of others. Some of the dietary elimination strategies showed intriguing results, suggesting the need for future research. One dietary study determined that food additives might have an impact on a child's hyperactivity level (Warner, 2004). Treatments that focus on mineral supplementation may merit further study, but current data suggest that they are only useful when true deficiency has been demonstrated. Although these treatments have generated considerable interest and there are some controlled and uncontrolled studies using various treatment strategies, the research regarding these interventions is disproportionate, ranging from no data to well-controlled trials.

Other Important Treatment Elements

It is important to realize that simple inattention or hyperactivity by itself is not sufficient for diagnosis. ADHD has been misdiagnosed in both children and adults by parents, teachers, and even by patients themselves. Misbehavior by children or teens has been inappropriately diagnosed and treated by persons looking for a simple solution to personality difficulties in hopes of avoiding psychotherapy.

While no treatment can cure ADHD, caregivers and parents must educate themselves about this disorder so they can understand it and design an effective treatment plan. It is up to the caregiver to become an informed consumer and learn to distinguish accurate information from the inaccurate. Relatives, teachers and caretakers need to understand that ADHD is neurobiological and that a child's brain works a bit differently. ADHD is not the result of too much sugar or too little discipline.

Effective treatment involves the use of a multimodal approach that includes an appropriate educational program; behavior modification; parent, child and teacher education; and sometimes

counseling and medication (CHADD, 2001). Caregivers need to advocate for their children in academic settings as well as in their home environment. Children with ADHD may be eligible for special educational services in the public schools under both the Individuals with Disabilities in Education Act (IDEA: Public Law 101-476) and Section 504 of the Rehabilitation Act of 1973 (Public Law 93-112) (Barkley, 2001). IDEA governs special education requirements and Section 504 provides for reasonable accommodations for children with disabilities (Gephart, 2002). Maximizing positive outcomes under these laws is possible with caregiver involvement.

Effective parent training teach strategies to modify behaviors and improve outcomes. Because ADHD is hereditary, many parents of children with ADHD discover, when their child is diagnosed, that they too have ADHD (CHADD, 2001). Parents with ADHD may need the same types of evaluation and treatment that they seek for their children.

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ADHD.com
http://www.adhd.com/index.jsp

Attention Deficit Disorder Resources
http://www.addresources.org

Centers for Disease Control and Prevention (CDC)
Attention-Deficit/Hyperactivity Disorder
http://www.edc.gov/ncbddd/adhd

Children and Adults with Attention Deficit Disorders (CHADD)
8181 Professional Place, Suite 201 - Landover, MD 20785
National Call Center – 800-233-4050
http://www.chadd.org

PlanetPsych.com Online Therapist Directory/Virginia
http://www.planetpsych.com/zDirectory/virginia.htm

Virginia Resources

The Central Virginia CHADD Chapter
804-423-6332
http://www.ric-add.com/home.htm

Fairfax, CHADD of Northern Virginia
P.O. Box 2645 - Fairfax City, VA 22031
24-Hour Information Line - 703-641-5451

Parents Advocacy | ACT
142 W. York Street, Suite 710 - Norfolk, VA 23510
757-623-2228

Parents of Children with ADD and ADHD/Roanoke
6603 Sherry Road - Roanoke/Botetourt, VA 24019
Intake 540-366-2809

People with Attentional and Developmental Disabilities Association (PADDA)
813 Forrest Drive, Suite 3 - Newport News, VA 23606
757-591-9119

Tidewater CHADD
P. O. Box 62686 - Virginia Beach, VA 23466-2686
757-479-9993
http://www.tidewaterchadd.org

Suggested reading for parents recommended by CHADD

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OPPOSITIONAL DEFIANT & CONDUCT DISORDERS

Introduction

Although it is normal for both children and adolescents to exhibit some type of oppositional behavior as they mature, some children and adolescents may exhibit behaviors that are significantly disruptive to the point where they may impair functioning. Such troublesome and provoking behaviors comprise a host of syndromes and typically are behaviors exhibited by children who are diagnosed with oppositional defiant disorder (ODD) and conduct disorder (CD).

Typically, children who suffer from these mental health disorders display behavior that is disturbing, potentially dangerous as well as disruptive (Boesky, 2002). ODD and CD are often referred to as the "disruptive disorders" (Boesky).

Disruptive disorders are complex and may lead to long-term adverse consequences affecting academic performance, as well as difficulties in social and emotional development. Children with CD and ODD are also at high risk for criminality and antisocial personality disorders in adulthood (Rutter, 1997).

According to the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV),* as cited by Loeber (2000), the essential features of ODD are recurrent pattern of negativistic, defiant, disobedient, and hostile behavior toward authority figures, which leads to impairment. The primary features of CD are a repetitive and persistent pattern of behavior in which the basic rights of others and major age-appropriate societal norms or rules are violated (Loeber, 2000).

There has been much debate on the degree that ODD and CD relate to and how they are distinguished from one another. The majority of empirical evidence supports a distinction between the two disorders and ADHD. (Cohen et al., as cited by Loeber, 2000). Table 1 outlines the prevalence rates of both ODD and CD.

Table 1

Key Facts for Disruptive Behaviors

Oppositional Defiant Disorder (ODD)

- ODD is reported to affect between 2 and 16 percent of children (Medical Center Online, 2002).
- ODD is more common in boys than in girls before puberty (U.S. Department of Health and Human Services, 1999).
- After puberty the rates in both genders are equal. (U.S. Department of Health and Human Services).

Conduct Disorder (CD)

- Approximately 6 percent of children have CD.
- CD is more common in boys than in girls by a 4:1 ratio.
- CD is believed to be more prevalent in urban than in rural settings.
- Children with CD often have other psychiatric problems.
- The prevalence of CD has increased over recent decades.
- Aggressive behavior is the reason for one-third to one-half of the referrals made to child and adolescent mental health services.

Source: The Mental Health Online, 2002.

Oppositional Defiant Disorder (ODD)

ODD is a relatively new diagnosis that describes children with behavior problems that do not meet the criteria for full-blown CD (Murphy et al., 2001). ODD is typically considered a mental disorder where the child exhibits noncompliance toward authority figures (Boesky, 2002). According to Chandler (2002), ODD is a psychiatric disorder that is characterized by two different sets of problems: aggressiveness and a tendency to purposefully bother and irritate others. It is an enduring pattern of uncooperative, defiant, and hostile behavior to authority figures without major antisocial violations (Christophersen & Mortweet, 2002).

ODD often occurs before conduct disorder and may, in fact, be an early sign of conduct disorder (U.S. Department of Health and Human Services, 1999). ODD is diagnosed when a child's behavior is hostile and defiant for six months or longer and is thought to start in the preschool years, whereas conduct disorder generally appears when children are somewhat older (Lavigne, 2001). ODD is not diagnosed if conduct disorder is present (Substance Abuse and Mental Health Services Administration, 1998). The diagnostic criteria for ODD are listed in Table 2.

Conduct Disorder (CD)

Children with CD exhibit persistent and critical patterns of misbehavior. These children may indulge in frequent temper-tantrums like children with ODD; however, they also violate the rights of others (Center for the Advancement of Children's Mental Health at Columbia University, 2000). Behaviors exhibited by children with CD include aggression towards people or animals, destruction of property, deceitfulness, theft or serious violation of rules (Murphy et al., 2001).

Table 2

DSM-IV Criteria for Oppositional Defiant Disorder

A. A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months, during which four (or more) of the following are present:
   1. often loses temper;
   2. often argues with adults;
   3. often actively defies or refuses to comply with adults' requests or rules;
   4. often deliberately annoys people;
   5. often blames others for his or her mistakes or misbehavior;
   6. is often touchy or easily annoyed by others;
   7. is often angry and resentful; or
   8. is often spiteful or vindictive.

   Note: Consider a criterion met only if the behavior occurs more frequently than is typically observed in individuals of comparable age and developmental level.

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C. The behaviors do not occur exclusively during the course of a Psychotic or Mood Disorder.

D. Criteria are not met for Conduct Disorder. If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

Source: Christophersen & Mortweet, 2002.

According to research compiled by Christophersen & Mortweet (2002), the diagnosis of CD is usually based on the persistence and the repetition of the behavior. Furthermore, CD may first occur in childhood or in adolescence and may have mild, moderate, or severe classifications. The lack of specific subtyping may result in CD's being over-inclusive and associated with other mental disorders.

Children diagnosed with CD have more difficulty in areas of academic achievement, interpersonal relationships, drugs, and alcohol use (Boesky, 2002). They also are often exposed to the juvenile justice system because of their delinquent or disorderly behaviors.

For example, Ferguson and Horwood, as cited in Boesky, found that 90 percent of children with three or more CD symptoms at age 15 were self-reported frequent offenders a year later, compared with 17 percent of children with no CD symptoms. Also, according to Murphy (2001), 25 to 40 percent of children with CD have adult antisocial personality disorder later in life. Table 3 lists the criteria for CD as classified in the *DSM-IV*.

There are two specific subtypes of CD: childhood onset and adolescent onset (Braithwaite et al., 2001). The first, onset occurs in childhood before the age of 10, with the child displaying one criterion characteristic (Braithwaite et al.). Children diagnosed with childhood onset CD are typically male, often display physical aggression, have disturbed peer relationships, and may have had ODD during early childhood (Braithwaite et al.). These children typically develop full criteria for CD before they reach puberty (Braithwaite et al.). In the second subtype, onset usually occurs during adolescence, and is defined by the absence of CD at the age of 10 (Braithwaite et al.). These children are less likely to display aggressive behaviors than children in the first subtype. They will

also have more normal peer relationships, and are less likely to develop adult antisocial personality disorder (Braithwaite et al.). Late-onset is the only type of CD for females (Loeber, 2000).

Table 3

DSM-IV Criteria for Conduct Disorder

A. A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:

Aggression to people and animals:

1. often bullies, threatens, or intimidates others;
2. often initiates physical fights;
3. has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun);
4. has been physically cruel to people;
5. has been physically cruel to animals;
6. has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery);
7. has forced someone into sexual activity.

Destruction of property:

8. has deliberately engaged in fire setting with the intention of causing serious damage;
9. has deliberately destroyed others' property (other than by fire setting).

Deceitfulness or theft:

10. has broken into someone else's house, building, or car;
11. often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others);
12. has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering, forgery);

Serious violations of rules:

13. often stays out at night despite parental prohibitions, beginning before age 13 years;
14. has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period);
15. is often truant from school, beginning before age 13.

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C. If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

Source: Christophersen & Mortweet, 2002.

Relationship between ODD and CD

ODD and CD are characterized by antisocial behavior and, accordingly, are considered a group of behaviors rather than actual impairments (U.S. Department of Health and Human Services, 1999). The linkage between ODD and CD has been examined in several studies (Biederman et al., Frick et al., Lahey et al., Loeber et al., as cited in Lavigne, 2001). These studies indicate that ODD is usually present as a forerunner to childhood-onset CD, but most children with ODD do not develop CD. In a recent study, 56 percent of males and 62 percent of males with CD also met criteria for ODD (The Brown University Child and Adolescent Psychopharmacology Update, 2004).

While some features of ODD and CD overlap, there are important distinctions (Searight et al., 2001). Children with ODD do not typically display significant physical aggression and may be less likely to have problems with the law (Searight et al.).

According to Boesky (2002), a subset of children diagnosed with ODD may ultimately develop CD. Moreover, because ODD is seen as a disorder of noncompliance and CD involves the violation of another's rights, it is helpful to view these mental health disorders as two points on a continuum, rather than two separate mental health disorders. Most children with CD begin with ODD-like behaviors (Kazdin, as cited in Boesky). Although children with ODD may develop CD, many do not. Although the precise relationship between ODD and CD is not explicit, it is known that early intervention and treatment of ODD may avert the development of CD.

Etiology

According to the Center for the Advancement of Children's Mental Health at Columbia University (2000), research is needed to pinpoint the exact causes of both ODD and CD. It is surmised that a genetic vulnerability, combined with environmental factors, may influence the disorder as well as its disruptive behaviors. Some of these environmental factors include: family histories of disruptive behavior disorder, antisocial personality disorder, mood disorders, or substance abuse; permissive, neglectful, harsh or inconsistent parenting; and poverty. CD may also be associated with a variety of awkward living conditions such as overcrowding, poor housing, and disadvantaged school setting (Hibbs & Jensen, 1996, p. 380). Thus, it is important to account for all of these conditions because the development, maintenance, and course of treating CD may also be impacted by them. Second, there is no one cause or influencing factor. Frequently, the problem behaviors exhibited by children with ODD and CD may be indicative of underlying psychiatric, neurological or learning problems (National Alliance for Mental Health Wisconsin, 2002). Conversely, co-existing conditions have been found to exacerbate behavioral problems.

The symptoms for CD and ODD can be variegated (Boesky, 2002). Not every child reacts the same way to these various influencing factors. Moreover, viewing both CD and ODD as mental disorders without factoring risk factors causing the disorders is misleading.

Given the high co-morbidity rate of CD with ADHD, Tourette's syndrome, as well as with other disorders known to be due to neurological dysregulations, there is the possibility that CD may also be a result of neurological dysregulations (Braithwaite et al., 2001). However, no studies have investigated neurological disorder to be the basis for CD (Braithwaite et al.).

Comorbidity

ODD and CD are frequently found in children who suffer from ADHD, another disruptive disorder, which is discussed separately in this report (Center for Advancement of Children's Mental Health, 2000). Children who develop CD often show signs of this disorder at an earlier age. The onset of CD occurs earlier in boys diagnosed with ADHD (Loeber, 2000). Studies have determined that, in 92 percent of boys referred with ADHD who developed CD, the onset of CD occurred prior to age 12 (Biederman et al., Hinshaw et al. as cited in Loeber).

A recent study of co-morbidity levels for children diagnosed with ODD or CD determined that 36 percent of females and 46 percent of males with ODD met criteria for at least one other disorder

(The Brown University Child and Adolescent Psychopharmacology Update, 2004). Thirty-nine percent of females and 46 percent of males diagnosed with CD also met criteria for another disorder (The Brown University Child and Adolescent Psychopharmacology Update).

According to analysis compiled by Lavigne, ODD may precede the development of anxiety and mood disorders. Some children may develop co-morbidity of ODD with another disorder in the grammar school age range. Such co-morbidity may develop with ADHD and some young children with ODD may later develop anxiety or depressive disorders comorbid with ODD. This study found that a shift from ODD in the preschool years to either anxiety or depression without any co-morbidity in the grammar school years as uncommon. Several studies have also documented a strong association between CD and substance use (Whitmore et al., Windle, as cited in Loeber) with CD as the psychiatric disorder most strongly associated with substance abuse.

Loeber (2000) conducted a literature review of the co-morbidity of CD and found that comorbid conditions in girls with CD are relatively predictable. He asserted that in general, adolescent girls are more at risk for anxiety and depression. Accordingly, there is an increased risk for such disorders in girls with CD. Thus, gender and age are crucial indicators in determining and diagnosing comorbid conditions with CD. Several other features of CD are relevant because children with CD are also more likely to show deficiencies in academics, as well as with a variety of cognitive processes.

Diagnosis

There are no definitive psychological or biological tests for diagnosis of disruptive disorders (University of British Columbia, 2004). The accurate diagnosis of disruptive disorders requires a multimethod assessment involving the consideration of conclusions reached by two different assessment methods (Christophersen & Mortweet, 2001). Also, such an assessment may help detect patterns of co-occurring disorders. Assessments may include interviews on family history and child-rearing practices, as well as behavior rating scales.

The following diagnosis criteria are outlined by Columbia University's Center for the Advancement of Children's Mental Health (2003). The mental health provider, after interviewing the child, family, and teachers, should also evaluate the course of the child's development, especially through school records. Particular attention should be paid to any oppositional or aggressive behavior that is not age-appropriate. For a diagnosis of ODD, a pattern of negative hostile defiant behavior that has persisted for at least six months must be established which reflects significant impairment in social and academic functioning. It must also be confirmed that the behavior has not occurred in the course of a psychotic or mood disorder.

To make a diagnosis of CD, the mental health clinician must ascertain whether the child has shown at least three major symptoms in the last three months, with one of the symptoms having occurred in the last six months. These symptoms must have occurred in various settings. The behavior must cause significant impairment in the child's social or academic life. Because CD usually occurs with another disorder, the mental health clinician should also look for other co-occurring disorders, such as ADHD, which occurs in 25% of children with CD (Columbia University's Center for the Advancement of Children's Mental Health, 2003).

Prevention

Recent studies pertaining to ODD and CD are focusing on efforts to prevent disruptive disorders from developing (University of British Columbia [UBC], 2004). Goals of prevention programs are to intervene early and mitigate risk factors, thus reducing the number of new cases (UBC, 2004). Prevention programs may be either universal, focusing on entire populations, or targeted, which are directed towards children who have been labeled high-risk (UBC, 2004). More research is needed to determine the effect of prevention programs on disruptive disorders.

Treatments

According to analysis compiled by Burns et al. (1999), disruptive disorders are considered very difficult to treat. Various treatment modalities are utilized for treating these disorders as well as the comorbid disorders which accompany ODD and CD.

The Center for the Advancement of Children's Mental Health (2000) maintains that, for some children with CD, behavior therapy can be used to teach new ways to resolve conflict through role playing and rehearsal. Furthermore, family functioning and the child's prognosis may be improved by parental management training. Parental management training helps parents to better understand the disorder and learn strategies for dealing with their child. Further research has found that among these two behavioral disorders, ODD has shown the best response to psychotherapy. Academic and social rehabilitation are also beneficial, as is certain forms of group therapy that uses behavioral therapy techniques.

Murphy (2001) states that treatment for ODD and CD usually involves individual and family therapy. Frequently, some children may need to be removed from the home and placed in foster care. Also necessary to consider are the other comorbid disorders that accompany CD that also require treatment such as ADHD, developmental disabilities, substance abuse disorder, anxiety disorders and mood disorders. CD requires early intervention, extensive treatment in multiple domains and long-term follow-up (Offord & Bennett, as cited in Children's Mental Health Ontario, 2001). Parents who retain custody of a child with CD are taught limit setting, consistency and other behavioral techniques. Medication is only used to treat comorbid ADHD or moods disorder, but not for CD itself. Furthermore, early diagnosis and intervention is the key to improved prognosis in the outcome of CD. However, there is no single effective treatment for this disorder. If CD is diagnosed along with another disorder, the other disorder is treated first (Center for the Advancement of Children's Mental Health at Columbia University, 2000).

Evidence-based Treatments

According to the U.S. Department of Health and Human Services (1999) and Burns et al. (1999), there are several psychosocial interventions which can effectively reduce antisocial behavior in disruptive disorders. After more than 80 studies were performed, two treatments met criteria for well-established treatments and 10 for probably efficacious treatment. These psychosocial interventions are also proven effective and have had positive results in the treatment of boys (Technical Assistance Partnership, 2002).

Parent Management Training Techniques

The following treatments are discussed by the U.S. Department of Health and Human Services (1999) and Burns et al. (1999) as being well-established. There are two treatments that are directed at training parents and have been proven successful in reducing problem behaviors and are

particularly effective with children diagnosed with ODD. One of these treatments is a parent-training program based on the manual *Living with Children* (Bernal et al., as cited in Burns and the U.S. Department of Health and Human Services). The other is a videotape modeling parent training (Spaccarelli et al., as cited in Burns and the U.S. Department of Health and Human Services). The following is a description of these two techniques:

> *Living With Children* – According to the U.S. Department of Health and Human Services, this treatment teaches parents to reward desirable behaviors and ignore or punish deviant behaviors, based on principles of operant conditioning. Parents are instructed to read parts of these training manuals and therapists use the manuals as a guide for conducting the interventions. The parent training consisted of 8 to 10 clinic sessions in which a parent is taught to pay attention to and reward appropriate behavior and to ignore inappropriate behavior. The parents are then instructed on issuing commands and using reinforcement for compliance and time-out for noncompliance. Teaching procedures involved didactic instruction, modeling, role play, interaction with the child in the clinic, and structured times to practice skills in the home.
>
> This type of parent training and social learning intervention has been found to be an effective method for decreasing deviant behavior. Furthermore additional review has shown that such parent training has been as carefully documented and empirically supported.
>
> *Videotape modeling parent training* – As stated by the U.S. Department of Health and Human Services, this form of treatment provides a series of videotapes covering parent-training lessons, after which a therapist leads a group discussion of the videotape lessons.

Table 4

Ways Parents Can Help their Child with ODD

- Build on the positive; give your child praise and positive reinforcement.
- Be a good model for your child. Take a break if you are about to make a conflict worse, not better.
- Choose your battles wisely. Prioritize things you want your child to do.
- Establish reasonable, age appropriate limits with consequences that can be easily enforced.
- Work with and obtain support from other adults, e.g., teachers, coaches, and spouse.
- Manage your own stress.

Source: American Academy of Child & Adolescent Psychiatry, 1999.

The following treatments discussed are efficacious in that they have been successful in treating children, particularly in clinical trials. These treatments are discussed by Burns and outlined in the Technical Assistance Partnership for Child and Family Mental Health, 2002.

Cognitive Behavioral Approaches

According to the Technical Assistance Partnership for Child and Family Mental Health (2002), there are several behavioral approaches for treating CD and ODD. These approaches include: Multisystemic Therapy by Scott Henggeler; Anger Coping Therapy by Lochman and Lochman; Assertiveness Training by Huey and Rank; Delinquency Prevention Program by Tremblay and Vitaro; Rational Emotive Therapy by Block; Videotape Modeling Parent Training by Webster-Stratton; and Parent-Child Interaction Therapy by Eyberg and McNeil.

Multisystemic Therapy

According to the University of Virginia Institute for Law, Psychiatry, and Public Policy, an intervention model with proven success in treating adolescents with CD is Multisystemic Therapy (MST). MST is particularly effective for treating youth with CD because it applies techniques that promote detachment from deviant peers, builds stronger bonds to the family and school, enhances family management skills such as monitoring and discipline, and builds develop greater social and academic competence (Brunk, 2000). Treatment addresses the needs of the youth and family. Results of studies with hostile and antisocial youth have show that MST is effective in reducing conduct problems and improving family functioning. (For more information on MST, please refer to the "Juvenile Offenders" section in the *Collection.*)

Pharmacological Treatment

As found by Boesky (2002), there is no one type of medication usually prescribed for ODD and CD because there has been no one class of medication found to be beneficial. Psychostimulants may be prescribed for concurrent problems with impulsivity and hyperactivity. Antidepressants may also be prescribed to youth experience feeling of depression or mood disorders. Medication may also help with co-occurring mental health disorders, making it more likely the child will be able to participate and benefit from intervention strategies.

According to the U.S. Department of Health and Human Services, no drugs have been found to be consistently effective in treating CD, although four drugs have been tested (1999). Lithium and methylphenidate have been found to effectively reduce aggressiveness in children with CD (Campbell et al., Klein et al., as cited by the U.S. Department of Health and Human Services); Some studies; however, could not establish that lithium was effective. Additional research studies found that methylphenidate was superior to lithium and that carbamazepine was frequently effective, but multiple side effects were also reported (Kafantaris et al., as cited by the U.S. Department of Health and Human Services). Clonidine was studied and patients showed a significant decrease in aggressive behavior but also exhibited significant side effects that would require monitoring of cardiovascular and blood pressure parameters (Kemph et al., as cited by the U.S. Department of Health and Human Services).

As stated by Christophersen & Mortweet (2002), there is limited support for pharmaceutical treatments for ODD. Studies have shown that such a treatment approach is not effective for children with ODD. However, children with ADHD and ODD may benefit from stimulants or tricyclic antidepressants. Pharmacotherapy should not be utilized as the sole treatment for a child with ODD or CD with comorbid disorders. Medications must only be prescribed in conjunction with psychological interventions such as parent training.

Unproven Treatments

Research indicates that therapy for disruptive disorders should involve treatments that are delivered with enough frequency and duration in order to produce the desired treatment outcomes (Children's Mental Health Ontario, 2001). There is little research supportive of single-session or brief interventions or for approaches such as boot camps, psychiatric hospitalization, medication trials, or a brief course of cognitive-behavioral therapy (Cowles et al. as cited in Children's Mental Health Ontario).

Other Treatment Issues

ODD and CD are more prevalent among adolescents from families with low socioeconomic status (Loeber, 2000). CD is more common in neighborhoods characterized by social disorganization and high crime rates (Loeber). More research is needed to assess the differences of CD and ODD in rural and urban environments, given that results from current research are mixed and the poor prognosis of CD is associated with urban areas (Loeber).

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Child, Adolescent and Family Branch Center for Mental Health Services
5600 Fishers Lane, Room 18-49 - Bethesda, MD 20857
800-789-2647

Focus Adolescent Services
Teen Behavior Problems and Behavioral Disorders
http://www.focusas.com/BehavioralDisorders.html

Internet Mental Health
Oppositional Defiant Disorder
http://www.mentalhealth.com/dis/p20-ch05.htm

notMYkid.org
Oppositional Defiant Disorder
http://www.notmykid.org/parentArticles/ODD/default.asp

University of Virginia Health System
P.O. Box 800224 - Charlottesville, VA 22908
434-924-3627
http://www.healthsystem.virginia.edu/uvahealth/adult_mentalhealth/odd.cfm

Virginia Commonwealth University Health System
1250 East Marshall Street - Richmond, VA 23298
804-828-9000
http://www.vcuhealth.org

MALADAPTIVE BEHAVIORS

SEXUAL OFFENDING

Introduction

Sexual offenses perpetrated by juveniles are a serious problem. Each year in the United States, an estimated one-fifth of the rapes are committed by juveniles. One-half of the child molestations are committed by juveniles (Hunter, 2000). It is believed that approximately half of all adult sexual offenders began their criminal careers during adolescence (Saleh, 2004). The Federal Bureau of Investigation reported that, in 2001, approximately 12 percent of all rapes resulted in the arrest of a juvenile (Saleh). In Virginia's Department of Juvenile Justice system, almost ten percent of the male population has a sex offense charge (Virginia Department of Juvenile Justice, 2004). Sexual offending is not a disorder per se, but is rather a behavioral problem that may be closely linked to other disorders.

Juveniles who perpetrate sexual offenses are defined as those who commit any sexual act against the victim's will, without consent, or in an aggressive, exploitive, or threatening manner (Matthews, 1997). They are usually between 12 and 17 years of age and are mostly male, although

some studies have found a number of females and prepubescent perpetrators (Hunter, 2000). Sexually abusive behaviors can vary from non-contact offenses to acts of penetration (Office of Juvenile Justice and Delinquency Prevention [OJJDP], 2001).

There are two types of juvenile sexual offenders: those who target children and those who offend against their peers or adults (Hunter, 2000). The type of offense is based on factors such as the age and sexual of the victim, the relationship between the victim and the offender, and the amount of force used (OJJDP, 2001).

Characteristics of Juvenile Sexual Offending

Sexual and physical abuse, child neglect, and exposure to family/domestic violence are associated with juvenile sexual offending (Center for Sex Offender Management, 1999). Juvenile sexual offenders may be characterized as loners with few close friends (Thakur, as cited by Kushner, 2004). Exposure to pornography has also been cited, but studies examining whether pornography leads to juvenile sexual offending have been inconclusive (OJJDP, 2001). Likewise, the association between substance abuse and juvenile sexual offending has not been fully established (Center for Sex Offender Management).

Table 1

Characteristics of Sexually Abusive Juveniles

Typically adolescents, age 13 to 17.
Mostly male perpetrators.
Difficulties with impulse control and judgment.
Up to 80% have a diagnosable psychiatric disorder.
30-60% exhibit learning disabilities and academic dysfunction.
20 to 50 percent have histories of physical abuse.
40 to 80% have histories of sexual abuse.

Source: Center for Sex Offender Management, December 1999.

Comorbidity

Sexually abusive juveniles share other common characteristics, including:

- high rates of learning disabilities and academic dysfunction;
- the presence of other behavioral problems and CDs; and
- difficulties with impulse control and judgment.

Juvenile sexual offenders have also been known to demonstrate characteristics of paraphilia, which is an intense, repeated sexual arousal to unconventional stimuli (PsychDirect, 2004). Offenders with paraphilia tendencies were also reported to have high rates of psychiatric disorders (Saleh). Within a recent study of juvenile offenders, 95 percent had two or more paraphilias, 82 percent had a mood disorder, 55 percent with anxiety disorder, 55 percent with impulse control

disorder, 71 percent with attention-deficit/hyperactivity disorder, 94 percent with CD, and 50 percent had a substance abuse disorder (Saleh).

Juvenile Female Sexual Offenders

There are few studies that address juvenile female sexual offenders. However, these studies have revealed implications for treating the juvenile female sexual offender. One implication is that female sexual offenders are usually more likely to have histories of maltreatment, with physical abuse being apparent in 20 percent of studied cases and sexual abuse in 50 percent of studied cases (Mathews, Hunter & Vuz, 1997). Compared to those of juvenile males, the histories of the studied females reflected even more extensive and pervasive childhood maltreatment because many of these females were exposed to interpersonal aggression by both females and males (Mathews, Hunter & Vuz). Moreover, the histories of these females revealed that they were victimized at younger ages and were more likely to have had multiple perpetrators (Mathews, Hunter & Vuz).

Juvenile female sexual offenders may molest children of both genders, with the victims typically being relatives or acquaintances of the perpetrator (Mathews, Hunter & Vuz, 1997). Many of the victims of female sexual offenders were frequently molested in the context of baby-sitting. Preliminary research has also revealed that these females had very disruptive and tumultuous childhoods, with high levels of trauma and exposure to dysfunction. High levels of impulsive delinquent behaviors, including substance abuse and other high-risk behaviors, were also observed (Mathews, Hunter & Vuz). Studies are being conducted to ascertain effective treatments. However, preliminary results indicate that treatment approaches should be employed to address the early and repetitive developmental traumas experienced by these offenders.

Treatment

Funding problems and ethical issues have made it difficult to conduct controlled outcome studies on the treatment of juvenile sexual offenders. However, a number of encouraging clinical reports have been published. While these studies are not definitive, they support the belief that the majority of sexually abusive juveniles are open to, and can benefit from, treatment (Center for Sex Offender Management, 1999). Adolescent sex offenders differ from their adult counterparts in that juveniles generally do not present the same kinds or levels of sexual deviancy and psychopathic tendencies that may be observed among adult offenders (Saunders, Berliner & Hanson, 2001)

Promising sexual offender treatment programs often combine an intensive, multi-modal approach with early intervention. Comprehensive cognitive-behavior programs often focus on taking responsibility for one's sexual behavior, developing victim empathy, and developing skills to prevent future offending. Approaches to the treatment of juvenile sexual offenders can vary, from biochemical treatment to group therapy to cognitive behavioral therapy (Juvenile Justice Evaluation Center, 2002).

Another promising treatment currently being researched is drug treatment from the opioid antagonists' class. This is being studied to determine the drug's ability to control sexual impulses and arousal in adolescent sexual offenders safely (Ryback, as cited by Reuters Health Information, 2004).

Goals of Treatment

According to Saleh (2004), treatment of juvenile sexual offenders focuses on key objectives: confronting the sexual offender's denial; decreasing deviant sexual arousal; developing sexual interests of a nondeviant nature; promoting empathy with the victim; enhancing interpersonal and social skills; clarifying values; clarifying cognitive distortions; and recognizing internal and external antecedents of sexual offending behavior (Journal of American Academy of Child and Adolescent Psychiatry [AACAP], 1999). The principal goal of sexual offender treatment is to help the patient gain control over inappropriate and deviant sexual symptoms or impulses (Saleh, 2004) and thus to cease offending.

Multisystemic Therapy

Multisystemic therapy (MST) is an intensive family and community-based treatment which addresses the multiple factors of serious antisocial behavior in juvenile abusers. Treatment can involve any combination of the individual, family, and extra familial factors (e.g., peer, school, or neighborhood). MST promotes behavior change in the juvenile's natural environment, using the strengths of the juvenile's family, peers, school, and neighborhood to facilitate change (Center for Sex Offender Management, 1999).

Concepts derived from family systems therapy can be incorporated into service treatments for sexual offending (Schladale, 2002). These family-based treatments do not need to be limited to an intensive home-based approach (Schladale). Parents or guardians need to be involved in the assessment and treatment process (Schladale). The use of family therapy may be most beneficial in the instances where incest has occurred, especially when the sexual offender will be rejoining the family after treatment (AACAP, 1999).

In perhaps the best-controlled study to date, MST was compared to individual therapy in the outpatient treatment of 16 adolescent sexual offenders. Using re-arrest records as a measure of recidivism (sexual and non-sexual), the two groups were compared at a three-year follow-up interval. Results revealed that juveniles receiving MST had recidivism rates of 12.5 percent for sexual offenses and 25 percent for non-sexual offenses, while those juveniles receiving individual therapy had recidivism rates of 75 percent for sexual offenses and 50 percent for non-sexual offenses (Hunter, 2000).

Group Therapy

Group sessions are often used in hospital or residential treatment settings and for monitoring a behavioral management system. This therapy provides a setting in which it is difficult for the sex offender to minimize, deny, or rationalize his sexual behavior. It can be offered within a variety of settings dependent upon environment, group membership, severity of sexual offenses, group objectives or goals, open or closed, as well as the length of the group experience (AACAP, 1999).

Residential Sexual Offender Treatment

Juveniles who have significant offending histories and/or are deemed to be at a high risk to sexually reoffend are appropriate for residential sexual offender treatment. Residential treatment ensures public and community safety, and simultaneously provides juveniles with intensive treatment that addresses both sexual and non-sexual behaviors. Residential programs provide intensive milieu treatment that is delivered by trained staff in a highly structured setting. The key to a successful residential programming is individualizing treatment which allows each juvenile to

address the unique and specific issues that are relevant to gaining control over their sexual and nonsexual behaviors. As a result, the length of time a juvenile remains in the program varies, because it is contingent upon the severity of the juvenile's problematic behaviors and motivation in treatment.

In one recent study of 668 juveniles participating in residential sexual offender programs within Virginia's juvenile correctional centers, the recidivism rate based on re-arrests for sexual offenses was four percent (with an average time post-release of 4½ years) (Wieckowski et al., 2005). The projected recidivism rate for sexual offenses was 7.7 percent, when based on all juveniles reaching the 10-year post-release mark (Waite et al., 2002). Successful integration of juveniles from a residential program is based on continued services in the community. Juveniles who successfully complete a residential program respond best when they are provided a gradual reduction in supervision and treatment services based on their compliance with parole rules and application of material they learned in treatment.

Community-based Programming

Community-based programming for juvenile sexual offenders is gaining more attention. Recent research suggests that community-based programming can offer certain advantages, including shortening residential lengths of stay, reducing the number of juvenile sexual offenders placed in residential care settings, and improving the post-residential transitioning of youth back into community settings (Hunter, Gilbertson, Vedros & Morton, 2004). Economic and clinical considerations have also bolstered the need for effective community-based programming. Key concepts guiding community-based programming are recognition of the heterogeneity of the population, establishment of a seamless continuum of care, emphasis on the myriad of problems this population manifests, and integration of legal and clinical management (Hunter, Gilbertson, Vedros & Morton). Community-based programming may be an effective element to the treatment continuum for juvenile sexual offenders.

Virginia's Sexual Offender Treatment Program

The following information about Virginia's Juvenile Sex Offender programs is taken from the Virginia Department of Juvenile Justice's website (2004). The Virginia Department of Juvenile Justice (DJJ) created a Sexual Offender Treatment Program at the Ellen Allen Cottage at Hanover Juvenile Correctional Center in 1990. DJJ worked with the Division of Prevention Research in the Department of Psychiatric Medicine at the University of Virginia to create an evaluation of the treatment program, collect and analyze data pertaining to the juvenile sexual offender and produce a report that discusses the recidivism data for sexual offenders. With implementation of the program, 14 beds were allocated to the treatment of juveniles having a sexual offense background. Today, the program has grown to treating up to 150 adolescents per year.

Four of Virginia's juvenile correctional centers also provide sexual offender treatment services, utilizing specialized self-contained units that house 10 to 24 juveniles each. In Fiscal Year 2004, the average length of stay was 28 months. Juveniles entering the program may receive a variety of individualized treatments including psychotherapy, group psychotherapy, family therapy, and treatment team meetings (Wieckowski et al., 2005).

DJJ projects the recidivism rate for those who have completed the program to be 4.7 percent after five years and 6.9 percent after 10 years (Wieckowski et al., 2005). DJJ study findings indicate that sexual recidivism rates for juvenile sexual offenders are lower than those of adult

offenders and that youth participating in a self-contained sexual offender treatment program are less likely to participate in criminal activity after release. This is particularly true for the non-sexual assault offenders. The study offers two important findings:

- rates of recidivism, based on re-arrests, for sexual offenses among juvenile sex offenders are low and are not based on the type of treatment during incarceration, and
- high impulsive/antisocial behaviors significantly increase the probability of recidivism, again regardless of type of treatment during incarceration (Wieckowski et al., 2005).

Psychopharmacological Treatments

In treating sexual offenders, selective serotonin reuptake inhibitors (SSRIs) have been shown to have an impact on sexual preoccupations, sexual drive and arousal (AACAP, 1999). Further information about SSRIs is provided in the "Antidepressants and the Risk of Suicidal Behavior" section of the *Collection*.

Treatment of sexual offenders through the use of antiandrogen drugs should be reserved for the most severe sexual abusers and are discouraged for use for juvenile sexual offenders under the age of 17 (AACAP, 1999). In addition, these drugs should never be used as an exclusive treatment (AACAP).

Treatment Implications

According to Saleh, informed consent is critical in treating sexual offenders (2004). Parents, as well as patients, need to be informed about the nature of the condition. The prognosis, nature, and purpose of treatment, as well as the risks associated with treatment, should all be addressed prior to beginning treatment.

Early interruption of a sexual abuse cycle can potentially prevent the sexual behaviors from becoming entrenched and reinforced (Westchester Juvenile Sex Offender Planning Committee, 2000). Treatment which involves law enforcement, the offending adolescent and their families can provide a valuable opportunity to reduce the incidents and recidivism of sexual offending (Westchester).

Promising Approaches to Intervention

The following is a review of issues essential to the development of successful community-based and residential treatment programming for sexually abusive juvenile.

Coordination between the Criminal Justice System and Treatment Providers

Most treatment specialists believe that successful programming for sexually abusive juveniles requires a coordinated effort between the juvenile justice system staff and treatment providers. As supported by clinical experience, effective motivators for treatment include suspending a low-risk juvenile's sentence contingent upon his or her successful completion of a community-based treatment program, and making the high-risk juvenile's release contingent upon successful completion of a residential program.

Supervision

To date, no studies have clearly identified which supervision strategies are most effective with juveniles who commit sexual offenses. Research on adult sexual offender supervision utilizes these management strategies: intensive supervision and sexual offense specific treatment; interagency collaboration, multidisciplinary teams, and the specialization of supervision and treatment staff; the use of the polygraph to monitor therapy and compliance with supervision conditions; and program monitoring and evaluation. However, too little is known as yet about young perpetrators to apply adult standards to them.

Role of Supervision Officers

In many programs, parole and probation officers play an integral role in assisting treatment providers by addressing critical issues and supervising juveniles' activities in the home and community and being aware of the juveniles' behavior and progress in residential treatment programs. Parole and probation officers are a key element in helping juveniles transition from a residential to community-based treatment program. While there is little agreement among the treatment community about the proper role of supervision officers in the treatment of young sexual abusers, supervision officers should, at a minimum, communicate and collaborate with treatment providers (Center for Sex Offender Management, 1999).

Assessment

Careful screening is critical to match the juvenile's needs to the type and level of treatment, which can range from community-based programming to intensive residential treatment. Ideally, this assessment reflects the careful consideration of the danger that the perpetrator presents to the community, the severity of psychiatric and psychosexual problems, and the juvenile's amenability to treatment. Community-based programs should not compromise community safety by admitting juveniles who are aggressive and violent.

Clinical Assessment

Professional evaluation of juveniles and their appropriateness for placement should be conducted post-adjudication and prior to court sentencing. Clinical assessments should be comprehensive and include careful record reviews, clinical interviewing, and screening for co-occurring psychiatric disorders.

Assessment of the Juvenile's Home

Assessments of the juvenile's appropriateness for community-based programming should include a thorough review of his living arrangements, as well as a determination of whether the parents are capable of providing supervision. It is essential that the community and other children are protected from potential harm, both physical and psychological.

Clinical Programming

Clinical programming for sexually abusive juveniles typically includes a combination of individual, group, and family therapies. In addition, many programs offer supportive educational groups to families of these juveniles. Juveniles who display more extensive psychiatric or behavioral problems, such as substance abuse, may require additional treatment, including drug and alcohol rehabilitation and psychiatric care. All therapies provided to sexually abusive juveniles should be carefully coordinated within the treatment agency and with external agencies providing case management and oversight.

According to the Center for Sex Offender Management (1999), providers have established the following as essential components of the treatment process for juveniles who commit sexual offenses:

- Gaining control of behavior;
- Teaching the impulse control and coping skills needed to successfully manage sexual and aggressive impulses;
- Teaching assertiveness skills and conflict resolution skills to manage anger and resolve interpersonal disputes;
- Enhancing social skills to promote greater self-confidence and social competency;
- Programming designed to enhance empathy and promote a greater appreciation for the negative impact of sexual abuse on victims and their families;
- Provisions for relapse prevention. This includes teaching juveniles to understand the cycle of thoughts, feelings, and events that are antecedent to the sexual acting-out, identify environmental circumstances and thinking patterns that should be avoided because of increased risk of reoffending, and identify and practice coping and self-control skills necessary for successful behavior management;
- Establishing positive self-esteem and pride in one's cultural heritage;
- Teaching and clarifying values related to respect for self and others, and a commitment to stop interpersonal violence. The most effective programs promote a sense of healthy identity, mutual respect in male-female relationships, and a respect for cultural diversity; and
- Providing sexual education to give an understanding of healthy sexual behavior and to correct distorted or erroneous beliefs about sexual behavior.

Controversial Treatments

Some areas of practice are considered ethically and legally controversial and may create special problems for juvenile sexual offending practitioners (Center for Sex Offender Management, 1999). These include pre-adjudication evaluations, sexual offense risk assessments, phallometric assessments, and polygraphs. At issue are these treatments' lack of overall effectiveness and validity within a juvenile population.

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The Awareness Center
Sexually Reactive Children and Juvenile Sex Offenders
http://www.the awarenesscenter.org/JuvenileSexOffenders.html

Focus Adolescent Services
Adolescent Sex Offenders
877-362-8727 or 410-341-4342
http://www.focusas.com/AdolescentSexOffenders.html

Institute for Family Centered Services (IFCS)
http://www.ifcsinc.com

Juvenile Forensic Evaluation Resource Center
Understanding Juvenile Sex Offenders: Research Findings and Guidelines for Effective Management and Treatment
http://www.ilppp.virginia.edu/Publications_and_Reports/UndJuvSexOff.html

Virginia Department of Juvenile Justice
http://www.djj.state.va.us/index_information/treatment_sex_offenders.php

EATING DISORDERS

Introduction

Eating disorders are a significant problem among children and adolescents in the United States. Anorexia nervosa is fatal 20 percent of the time, the highest death rate of any mental illness (Maier, Congressional Briefing, U.S. House of Representatives, 2003). Of the millions of Americans who are diagnosed annually with an eating disorder, an estimated 90 percent are adolescents and young women (Eating Disorders Coalition, 2005). Nearly half of all Americans know someone who has an eating disorder (South Carolina Department of Mental Health, 2004).

A study of children aged 8 to 10 found that half the girls and one-third of the boys are dissatisfied with their size (Harvard Eating Disorders Center, as cited by Lang.). A sample of 1,373 high school students also showed that female high school students were four times more likely to try to lose weight than males (63 vs. 16 percent), whereas male high school students were three times more likely than females to try to gain weight (28 vs. 9 percent) (Rosen and Gross, as cited by National Eating Disorders Association, 2002).

The prevalence of eating disorders has grown at an alarming rate during the last three decades, particularly among adolescent females (American Dietetic Association [ADA], 2001). The American Psychiatric Association (APA) (2000) has reported that eating disorders are now the third most common form of chronic illness in the adolescent female population, with an incidence of up to five percent. The APA study indicates that eating disorders are far less likely to occur in males (estimates of the male-female prevalence ratio range from 1:6 to 1:10).

The incidence of both anorexia and bulimia, however, is increasing among boys (Blinder, cited by Scheel, International Eating Disorder Referral Organization, 2005). In fact, boys represent 19 to 30 percent of the younger patient populations having anorexia nervosa, suggesting that they are becoming increasingly vulnerable to these disorders.

Adolescents with eating disorders face the risk of medical complications which can potentially be irreversible (ADA, 2001). These complications include growth retardation when the eating disorder occurs prior to closure of the epiphyses, pubertal delay or arrest, impaired acquisition of peak bone mass during teenage years, and increasing the risk of osteoporosis in adulthood (ADA). Younger children in general become skeletal more quickly because they have less body fat than adolescents (Blinder, as cited by Natenshon, International Eating Disorder Referral Organization).

Typically, females who develop an eating disorder do so because of feelings of being overweight, while in actuality they are more likely to be a normal weight (Andersen, as cited by SFWED, 2005). Males who develop the disease are in fact typically more overweight medically (Andersen, as cited by SFWED).

Table 1

Characteristics of Eating Disorders

- **ANOREXIA NERVOSA** – a disorder characterized by a distorted body image that causes individuals to see themselves as overweight even when they are dangerously thin. They often refuse to eat and exercise compulsively. They lose large amounts of weight and often suffer from extreme malnutrition.
- **BULIMIA NERVOSA** – a pattern of behavior in which the individual eats excessive quantities of food and then purges the body by using laxatives, enemas, or diuretics, vomiting, and/or exercising. They often act in secrecy and feel disgusted and ashamed as they binge, yet once their stomachs are empty again feel relieved of tension.
- **BINGE EATING DISORDER** – a disorder in which individuals experience frequent episodes of out-of-control eating. However, unlike those with bulimia, they do not purge their bodies of excess calories.

Sources: American Psychological Association [APA] (1998), Murphy & Cowan (2001).

Precipitating Factors

It is often difficult to isolate the causal factors that precipitate development of eating disorders, although issues of body image are an integral part of all conversations about disorders and appear to be a major variable in predicting eating disorders in males. According to studies, the drive to be thin is a more significant predictor of both adolescent male and female eating disorders than their psychological and/or family profile (Wertheim et al., as cited by International Eating Disorder Referral Organization).

In many cases, however, the symptoms are brought on by a combination of psychological, physical, emotional and cultural pressures (ADA, 2001). Psychological factors include low self-esteem, feelings of helplessness, and intense dissatisfaction with appearance (APA, 1998). Furthermore, the presence of perfectionist or impulsive traits and rigid cognitive styles have been more frequently observed in these populations (APA, 2000).

According to Theodore Weltzin, M.D., Rogers Memorial Hospital, dieting has the potential to trigger eating disorder triggers for both males and females. One study indicates that up to 70 percent of high school males diet at some time to improve their appearance (as cited by Anorexia Nervosa and Related Eating Disorders, Inc. [ANRED], 2005). Forty percent of 9-year old girls have dieted. (Maier, Congressional Briefing, U.S. House of Representatives, 2003).

Studies have also noted a high prevalence of eating disorders among groups such as athletes, models, dancers, and performers, as well as young people who must limit food consumption due to diseases such as diabetes mellitus (ADA, 2001). One recent study concluded that girls participating in aesthetic sports versus non-aesthetic sports or no sports experienced higher weight concerns (Davison, Ernest, Birch, as cited by Natenshon, International Eating Disorder Referral Organization, 1999). Males who participate in sports as jockeys, wrestlers, and runners are also at increased risk of developing an eating disorder (Andersen, as cited by SFWED, 2005). This suggests that the risk of developing such a disorder increases under circumstances in which dietary restraint or control of body weight assumes great importance.

The American Psychiatric Association has indicated that genetics may play a role in the development of maladaptive eating behaviors. Specifically, first-degree female relatives and identical twin siblings of patients with anorexia or bulimia nervosa have higher rates of eating disorder diagnosis than the general population, suggesting the existence of a biological predisposition (APA, 2000). Inheritance patterns, however, remain unclear. Complex behavioral disorders such as anorexia and bulimia are likely to be caused by multiple genes and environmental factors (Eating Disorder Recovery Center, 2004).

Some researchers have found that abnormal serotonin metabolism may play a greater role in patients with bulimia than those with anorexia, suggesting biological differences in individuals with these two diagnoses (Murphy & Cowan, 2001). A London-based study determined that people with anorexia were two times more likely to have variations in the gene regarding serotonin receptors, which in turn has an impact on appetite (BBC News, as cited by SFWED, 2005).

In addition, factors such as dysfunctional families and relationships have been highly correlated to eating disorders (APA, 1998). Individuals diagnosed with eating disorders are also more likely than the general population to have a history of abuse or trauma (ADA, 2001). Specifically, sexual abuse has been reported in 20 to 50 percent of patients with anorexia and bulimia nervosa. In addition, females with eating disorders who have suffered from sexual abuse also demonstrate higher rates of comorbid psychiatric conditions, which suggests that abuse may precipitate any number of psychological difficulties, especially those related to self-esteem (APA, 2000).

Diagnosis

Eating disorders are characterized by abnormal eating habits and cognitive distortions related to food and weight. The major characteristic of all eating disorders is a preoccupation with weight and excessive self-evaluation (APA, 2000). There is a relentless obsession with food that is accompanied by an intense fear of weight gain (ADA, 2001). Over a lifetime, an individual may meet the criteria for more than one of the disorders, which suggests a continuum of disturbed eating habits and body image (ADA).

Although the *DSM-IV* criteria call for the diagnosis of a specific eating disorder, the symptoms typically occur along a continuum between those of anorexia nervosa and bulimia nervosa, with many patients demonstrating a mixture of both disorders (APA, 2000). Consequently, as many as 50 percent of patients are diagnosed with eating disorders not otherwise specified (EDNOS) (ADA, 2001). The diagnosis of EDNOS appears to be particularly prevalent in adolescents. The classification encompasses individuals with symptoms of anorexia and bulimia nervosa who do not meet the threshold for official diagnosis, as well as individuals with binge eating disorder (ADA). Because eating disorders occur less often in males and because males having disorders are not characteristically thin or frail, health professionals may underdiagnose them (Weltzin, as quoted by ANRED, 2002).

One of the first physical signs of an eating disorder can be changes in the mouth, including enlarged salivary glands, changed tooth color, tissue loss or lesions, heightened sensitivity to temperature, and tooth decay resulting from excessive brushing following vomiting (National Eating Disorders Association, 2005). Dental practitioners are often the first to identify signs of bulimia. According to the National Eating Disorders Association, studies indicate that tooth erosion is evident in approximately 89 percent of bulimic patients.

Clinicians should recognize that the diagnostic criteria for eating disorders may not be entirely applicable to adolescents, due to the wide variability in rate, timing, and magnitude of height and weight gain during puberty (ADA, 2001). Furthermore, the absence of menses, one of the diagnostic criteria for females with anorexia nervosa, is difficult to ascertain during early puberty due to the unpredictability of menstrual periods at this age (ADA). It is also important for clinicians to keep in mind that other medical disorders may account for the low body weight observed in young patients (Murphy et al., 2001). A complete medical assessment should be conducted to rule out any potential underlying medical conditions.

While eating disorders are considered to be psychiatric in nature, they are distinct in the fact that the nutrition and medical-related problems can be life-threatening (ADA, 2001). As noted by the National Institute of Mental Health (NIMH) (2001), of particular concern is the increased mortality rate of individuals having the diagnosis, particularly among those with anorexia nervosa. Specifically, the mortality rate for anorexics has been estimated at 0.56 percent per year, which is about 12 times higher than the annual death rate for all causes of death among females between the ages of 15 and 24. According to NIMH, the most common causes of death in anorexics are complications of the disorder, such as starvation, cardiac arrest, electrolyte imbalance, and suicide.

Comorbidity

Common comorbid disorders, as listed in Table 2, include mood disorders (i.e., depression), anxiety disorders (i.e., obsessive-compulsive disorder), personality disorders (i.e., borderline personality disorder), and substance abuse disorders (ADA, 2001). Researchers have yet to determine whether these comorbid problems develop because of the isolation, stigma, and physiological changes brought on by eating disorders, or whether these conditions existed prior to the development of unhealthy eating habits (APA, 1998).

Table 2

Common Comorbid Disorders

- **Major depression or dysthymia** – diagnosed in 50 to 75 percent of patients with anorexia and bulimia nervosa
- **Obsessive-compulsive disorder** – as high as 25 percent in anorexia nervosa patients
- **Personality disorders** – occur in 42 to 75 percent of individuals diagnosed with eating disorders
- **Substance abuse disorders** – present in as many as 30 to 37 percent of bulimia patients and 12 to 18 percent of anorexics

Source: APA, 1998.

One recent study of women with eating disorders suggests that women having recurring suicidal thoughts usually developed their disorders at younger ages (Ham, as cited by the Center for the Advancement of Health, 2004). According to researchers conducting the Swiss National Science Foundation's two-year study, a majority of the participating patients had co-existing psychiatric disorders as enumerated in Table 2. The researchers speculate that the link between purging and suicidal attempts might point to a general lack of impulse control, whereas the higher prevalence of suicidal thoughts among anorexic patients suggests chronic self-harming behavior (Ham, Health Behavior News Service, as cited by the Center for the Advancement of Health).

Very young patients frequently display obsessive behaviors and depression and are far more frequently diagnosed with anorexia than bulimia (APA, 2000).

General Treatment Principles

Individuals with eating disorders are among the least likely to seek treatment (APA, 1998). However, once professional help is sought, these disorders can be successfully treated by an interdisciplinary team consisting of professionals from the medical, nutritional, and mental health disciplines (APA). The earlier an eating disorder is identified and treated, the better the chances for recovery (Levine and Maine, 2002). It is important to recognize, however, that no single professional or discipline can provide all the necessary care that will improve the patient's chances of recovery (ADA, 2001). Rather, a comprehensive treatment plan should include medical care and monitoring, psychosocial interventions, nutritional counseling, and, when appropriate, medication management (NIMH, 2001).

The APA (2000) reports in its findings that treatment locations range from intensive inpatient settings, in which general medical consultation is readily available through partial hospital and residential programs, to varying levels of outpatient care. The weight, cardiac, and metabolic status of the patient are the most important physical parameters for determining the choice of setting. Patients who weigh less than 85 percent of their individually estimated healthy weights are likely to require a highly structured program and possibly 24-hour hospitalization. Hospitalization should occur before the onset of medical instability as demonstrated by severely abnormal vital signs, and should be based on psychiatric and behavioral grounds. Specifically, once a patient begins to display a rapid decline in food intake and a dramatic loss of weight despite other treatments, treatment providers should strongly consider hospitalization. Furthermore, the presence of external

stressors or comorbid psychiatric problems may have a significant impact on this decision. More important than the particular treatment setting are the expertise and dedication of the members of the treatment team working with adolescents and their families (ADA, 2001).

Research has found that the sooner the disorder is recognized and treatment begins, the better the long-term outcome (NIMH, 2001). In general, adolescents have been found to have better outcomes than adults, with younger adolescents showing the most significant improvement (APA, 2000). It is important to note, however, that many patients display a limited response to treatment and will require long-term monitoring and intervention (U.S. Department of Health and Human Services, 2001). Patients with anorexia may be particularly difficult to treat because they are highly resistant to weight gain (Murphy et al., 2001). They are likely to exhibit a fear of losing control, and therefore are likely to resist all nutritional rehabilitation efforts (Murphy et al.). Thus, ethical considerations may arise during the course of treatment, and involuntary hospitalization may be the necessary course.

While there are similarities in the physical illness precipitated by an eating disorder in males and females and in the initial medical treatment of the illness, gender diversity and sociocultural influences must be acknowledged in long-term treatment of the disorder in males (Andersen, cited by Knowlton). There is a lack of treatment centers and therapy groups which offer services and treatments specially designed for males. As clinicians learn more about gender differences in eating disorders and gender-specific treatments, males can better expect to have their treatment needs addressed more fully (Eating Disorder Recovery Center, 2004).

The following paragraphs present current research for each of the three eating disorders: anorexia nervosa; bulimia nervosa; and binge eating.

Anorexia Nervosa

Approximately 0.5 to 3.7 percent of females suffer from anorexia nervosa in their lifetime (NIMH, 2001). Researchers estimate that approximate one percent of female adolescents have anorexia (ANRED, 2004). It is the third most common chronic illness among adolescents (SC Department of Mental Health, 2004).

Table 3

General Symptoms of Anorexia Nervosa

- Resistance to maintaining body weight at or above a minimally normal weight for age and height
- Intense fear of gaining weight or becoming fat, even when underweight
- Disturbance in perceptions of personal body weight, undue influence of body weight and shape in self-evaluation, or denial of the seriousness of the current low body weight

Source: NIMH, 2001.

Anorexia nervosa affects predominantly female adolescents and people in their twenties, but there are reports of children as young as six affected by the disorder (ANRED, 2004). Statistics on the incidence of adolescent male anorexia are not readily available, although it is generally cited that society tends largely to expect strong and athletic as the body image for males, rather than the

thin/waif-like image associated with females suffering from anorexia. One estimate suggests that 10 percent of the total population having anorexia and bulimia is male (ANRED).

Other behavioral symptoms may include being socially withdrawn, irritable, moody, and/or depressed (University of Virginia Health System, 2004).

Table 4

Physical Symptoms of Anorexia Nervosa

- Dry skin that when pinched and released, stays pinched
- Dehydration
- Abdominal pain
- Constipation
- Lethargy
- Dizziness
- Fatigue
- Infrequent or absent menstrual periods in females who have reached puberty
- Intolerance to cold temperatures
- Emaciation
- Development of lanugo (fine, downy body hair)
- Yellowing of the skin

Source: University of Virginia Health System, 2004 and NIMH, 2001.

Treatment Methods for Anorexia Nervosa

The treatment of anorexia nervosa generally occurs in three primary phases: (1) restoring the weight lost by severe dieting and purging; (2) treating psychological disturbances such as distorted self-perception, low self-esteem, and interpersonal issues; and (3) achieving long-term, full recovery (NIMH, 2001).

Evidence-based Treatments

According to the APA (2000), the treatment methods described in the following paragraphs are most commonly utilized for anorexia patients:

- *Nutritional rehabilitation* – Considerable evidence suggests that nutritional monitoring is effective in helping patients return to a healthy weight, as long as it is conducted in the proper setting to meet the particular patient's needs. For severely underweight patients, inpatient treatment has been found to be most effective. Clinicians have reported that as weight is restored, other eating disorder symptoms diminish; however, they often do not disappear completely.
- *Family psychotherapy* – The goal of family therapy is to involve family members in symptom reduction and to deal with family relational problems that may contribute to the anorexia. Some studies have found that family therapy may actually have greater long-term benefits than individual psychotherapy. However, these findings are limited to generalizations due to the fact that the patients in these studies often were not assigned to receive both family and individual treatment, which commonly occurs in practice.

- *Inpatient behavioral programs* – These programs commonly provide a combination of nonpunitive reinforcers, such as privileges linked to weight goals and desired behaviors. They have been shown to produce good short-term therapeutic effects.
- *Pharmacological treatments* – Medications are used most frequently after weight has been restored in order to maintain weight and normal eating behaviors and to treat psychiatric symptoms. The most typical medications prescribed are antidepressants; however, they should not be used in the acute phase of treatment for severely malnourished patients. Selective serotonin reuptake inhibitors (SSRIs) are frequently used for patients whose depressive, obsessive, or compulsive symptoms persist in spite of or in the absence of weight gain. A further description of the use of SSRIs is included in the "Antidepressants and the Risk of Suicidal Behavior" section of the *Collection.*

Unproven Treatments

Unproven treatments for anorexia patients cited by the APA (2000) include:

- *Individual psychotherapy* – The efficacy of this form of treatment remains uncertain. No controlled studies have reported whether cognitive behavioral psychotherapy or other specific psychotherapeutic interventions are effective for nutritional recovery. Clinicians generally agree that psychotherapy is almost always beneficial during acute refeeding; however, in starving patients, who are often negative, obsessional, or mildly cognitively impaired, this form of treatment may often be ineffective. Psychotherapy may, however, be a useful method in treating any co-occurring disorders.
- *Group psychotherapy* – Practitioners have found that group psychotherapy programs conducted during an acute phase among patients with anorexia may be ineffective and can sometimes have negative therapeutic effects, as patients may compete for who can be thinnest or exchange countertherapeutic techniques on simulating weight gain or hiding food.
- *12-Step Programs* – No data regarding the short- or long-term effectiveness of this form of treatment is available. However, use of addiction-based programs in isolation is discouraged, as patients will deprive themselves of the benefits of conventional treatments and may also be exposed to misinformation by well-meaning individuals in these groups.
- *Somatic treatments* – Vitamin and hormone treatments, electroconvulsive therapy, and other somatic treatments have been tried in uncontrolled studies. However, none has shown to have any significant therapeutic value to anorexic patients.

Contraindicated Medications

Tricyclic antidepressants should be avoided in underweight patients and in patients who are at risk for suicide (APA, 2000).

Bulimia Nervosa

An estimated 1.1 to 4.2 percent of females have bulimia nervosa in their lifetime (NIMH, 2001). Congress recently heard testimony that 13 percent of high school girls reportedly purge. (Maier, Congressional Briefing, U.S. House of Representatives, 2003). According to the American Journal of Psychiatry researchers, there is one male for every 8-11 females with bulimia. (ANRED, 2005). Bulimia generally affects children in their teens, although there are cases reported for children much younger (International Eating Disorder Referral Organization, 1999). There are two subtypes of bulimia: purging and non-purging (exercise and restrictive food intake). Table 5 lists the symptoms of the disorder.

Table 5

Symptoms of Bulimia Nervosa

- Recurrent episodes of binge eating, characterized by consumption of excessive amounts of food within a discrete period of time and lack of control over eating during the episode.
- Recurrent inappropriate responses to binges in order to prevent weight gain, such as self-induced vomiting or misuse of laxatives and other medications (often referred to as purging), fasting, or excessive exercise.
- The binge eating and compensatory behaviors both occur, on average, at least twice a week for three months.
- Self-evaluation is unduly influenced by body shape and weight.

Source: NIMH, 2001.

Treatment Methods for Bulimia Nervosa

The primary goal of treatment with bulimic patients is to reduce or eliminate binge eating and purging behavior. According to NIMH (2001) nutritional rehabilitation, psychosocial intervention, and medication management strategies are therefore often used. Specifically, treatment includes the establishment of regular, non-binge meals, improvement of attitudes related to the disorder, encouragement of healthy but not excessive exercise, and resolution of any co-occurring disorders such as anxiety or mood disorders.

Evidence-based Treatments

The following treatments are most commonly utilized in bulimic patients:

- *Cognitive behavioral psychotherapy* – This form of individual psychotherapy, when specifically directed at the eating disorder symptoms and underlying cognitions, is the intervention for which there is the most evidence of efficacy. It has been found to lead to significant reductions in binge eating, vomiting, and laxative abuse (APA, 2000).
- *Pharmacological treatments* – Psychotropic medications, primarily antidepressants such as the selective serotonin reuptake inhibitors (SSRIs), have been found to be helpful in treating bulimia. These medications are intended to reduce the frequency of disturbed eating behaviors, as well as to alleviate symptoms of comorbid disorders. Studies have found the use of antidepressants to be effective in reducing binge/purge behavior by a range of 50 to 75 percent. Most clinicians recommend continuing antidepressant therapy for a minimum of six months and preferably for a year (APA). Pharmacotherapy has been found to be especially effective for patients with symptoms of depression or anxiety for those who have not responded well to psychotherapy alone. It may also help to prevent relapse (NIMH, 2001).
- *Combined treatments* – There is generally a better response to cognitive behavioral therapy than pharmacotherapy; however, the combination of these two methods has been found to be superior to either alone (APA).
- *Group psychotherapy* – Research indicates that this form of therapy has been found to have moderate efficacy. Many clinicians favor use of this in conjunction with individual psychotherapy (APA).

Unproven Treatments

- *Individual psychotherapy* (interpersonal, psychodynamic, and psychoanalytic approaches) – While there is support for these approaches in case studies and reports, the efficacy of these methods has not been supported by scientific data. When directly compared to cognitive behavioral therapy, most have been found in short-term trials to be less effective (APA, 2000).
- *Behavioral therapy* – Evidence regarding the efficacy of this form of treatment is conflicting. Specifically, exposure treatment has not been found to have additive benefits over a foundation of cognitive behavioral therapy (APA).
- *12-Step Programs* – Addiction-based programs are not recommended as the sole treatment approach for patients with bulimia nervosa, as they do not attend to nutritional considerations or behavioral deficits (APA).

Contraindicated Medications

- Bupropion has been associated with seizures in purging bulimic patients and therefore should not be used in this population (APA, 2000).
- Monoamine oxidase inhibitors (MAOIs) are also potentially dangerous in patients with chaotic binging and purging; therefore their use should be limited (APA).

Binge Eating Disorder

Between two to five percent of Americans experience binge-eating disorder in a 6-month period (NIMH, 2001).

Table 6

Symptoms of Binge Eating Disorder

• Recurrent episodes of binge eating, characterized by consuming excessive amounts of food within discrete periods of time and a sense of lack of control.
• Marked distress about the binge-eating behavior.
• The binge eating occurs, on average, at least two days a week for six months.
• The binge eating is not associated with regular use of inappropriate compensatory behaviors, such as purging, fasting, or excessive exercise.

Source: NIMH, 2001.

Binge eating disorder, while listed separately in the appendix of the *DSM-IV*, has not yet been recognized as an official psychiatric diagnosis. Researchers have found that the disorder is relatively rare in the community, but is common among patients seeking treatment for obesity (APA, 2000). It occurs much more frequently in adults than adolescents (APA).

Treatment Methods for Binge Eating Disorder

The treatment goals and strategies for binge eating disorder are similar to those for bulimia nervosa. The primary difference in the two disorders is that patients with binge eating disorder present difficulties associated with being overweight, rather than being malnourished. Thus, they suffer from different medical ailments which are frequently associated with overweight populations, such as high blood pressure, high blood cholesterol levels, diabetes, and heart disease (APA, 2000). Consequently, the treatment strategies tend to diverge only in the nature of medical interventions.

Because binge eating disorder has only recently been recognized, little research exists on effective treatment strategies (NIMH, 2001). The creation of a diagnostic classification will allow this group of patients to be studied further from a clinical research perspective, and thus allow them to receive more accessible and appropriate treatment (Brewerton, 1997). NIMH reports that studies are currently evaluating the effectiveness of various interventions. Their research has shown that treatments that disrupt the binge-eating cycle and establish a structured pattern of eating allow the patient to experience less hunger, deprivation, and negative feelings about food and eating. Additionally, hunger and negative feelings, which most likely to prompt binge eating, are reduced, decreasing the frequency of binges.

Unproven Treatments

Unproven treatments for binge eating disorder patients cited by the APA (2000) include:

- *Nutritional rehabilitation and counseling* – Restrictive diets employed with group behavioral weight control programs have been associated with substantial initial weight loss, but are often less effective during or following the refeeding stage. Weight is commonly regained during this period.
- *Psychotherapy* – Behavior therapy, cognitive behavioral therapy, and interpersonal therapy have all been associated with binge frequency reduction rates. However, deterioration follows during the follow-up period for each of these types of therapy.
- *Addiction-based and self-help organization programs* – No systematic outcome studies of these programs are available.
- *Pharmacological treatments* – Antidepressants are typically used in binge eating disorder and related syndromes. However, there is a very high placebo response rate (around 70 percent), and patients tend to relapse after medication is discontinued.
- *Combined psychosocial and medication treatments* – The combination of medication with psychotherapy has been associated with significantly more weight loss than psychotherapy alone.

Cultural and Other Considerations

A wide range of demographics has been observed in eating disorder patients (ADA, 2001). The disorders appear to be more common among Native Americans, while equally prevalent in Hispanic and Caucasian populations and less common among Asians and African-Americans (APA, 2000). Researchers have also found that African-American females are more likely to develop bulimia nervosa than anorexia and are more likely to purge with laxatives than by vomiting (APA).

Because values concerning weight and shape vary among cultures, clinicians must be mindful of patients' specific views on beauty, acceptance, and what it means to be "perfect" in the modern world (APA, 2000). Patients who are minorities or are from non-Western or other cultural backgrounds are likely to display different weight and shape concerns.

It is also important to note that anorexia nervosa is detectable in all social classes. Thus, higher socioeconomic status does not appear to be a major factor in the incidence of these disorders, as once was surmised by clinicians (ADA, 2001).

One recent survey of Internet websites indicates that, by a 2003 count, approximately 500 sites offer pro-anorexia and bulimia forums (Pirisi, Health Day News, 2005). An estimated four out of

ten teenagers with eating disorders visit these pro-disorder sites (Peebles, as cited by McCook, 2005). These sites are a recent, but disturbing phenomenon.

Males with an eating disorder often go undiagnosed due to their embarrassment about not living up to the image of the ideal male body. In particular, males who binge or overeat compulsively may go undiagnosed, given society's unwillingness to accept such behavior in a male (Knowlton, 1995).

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Additional Resources/Organizations

Academy for Eating Disorders (AED)

6728 Old McLean Village Drive - McLean, VA 22101
703-556-9222
http://www.aedweb.org

Caring on line
http://www.caringonline.com

Dominion Hospital
2960 Sleepy Hollow Rd. - Falls Church, VA 22044
703-536-2000
http://www.dominionhospital.com

Eating Addictions Anonymous
202-882-6528
http://www.eatingaddictionsanonymous.org

Eating Disorders Coalition for Research, Policy & Action (EDC)
202-543-3842
http://www.eatingdisorderscoalition.org

Eating Disorder Recovery Center
http://www.eating-disorder.com

EDReferral.com (Eating Disorder Referral and Information Center)
http://edreferral.com

Girl Power!
U.S. Department of Health and Human Services
http://www.thebodypositive.org/index.html

Gurze Books
http://www.gurze.com

Harvard Eating Disorders Center
Helping Your Child
http://www.hedc.org

James Madison University
University Health Center
http://www.jmu.edu/healthctr/eatingdisorder

Johns Hopkins Eating and Weight Disorders Program
Johns Hopkins Hospital
101 Meyer Building, 600 N. Wolfe St. - Baltimore, MD 21205
410-955-3863
http://www.hopkinsmedicine.org/jhhpsychiatry/ed1.htm

National Association of Anorexia Nervosa and Associated Disorders
847-831-3438
http://www.anad.org

National Eating Disorders Association
http://www.nationaleatingdisorders.org
800-931-2237

National Institute of Mental Health (NIMH)
http://www.nimh.nih.gov

Overeaters Anonymous
Northern Virginia
703- 823-6682
http://www.oanova.org
DC or Maryland
301-460-2800
http://www.oadcmetro.org

The Society for Adolescent Medicine
http://www.adolescenthealth.org/virginia.htm

University of Virginia
Office of Health Promotion
http://www.virginia.edu/ims/forms/fit_eating-disorders.pdf

University of Virginia
Health System
http://www.healthsystem.virginia.edu/uvahealth/peds_adolescent/edhub.cfm

Recovery Center of Richmond
9323 Midlothian Turnpike – Richmond, VA
804-560-5400
http://therapistunlimited.com/rehabs/US/VA/RICHMOND/Recovery+Center+of+Richmond

St. Joseph Medical Center
7601 Osler Drive - Townson, VA 21204-7582
410- 427-2100
http://www.sjmcmd.org

University of Virginia Elson Student Health Center
http://www.virginia.edu/studenthealth/ailments/eatingdis.html

Virginia Action for Healthy Kids
General Information
http://www.ext.vt.edu/actionforhealthykids
Teacher Guide
http://www.ext.vt.edu/actionforhealthykids/resourceguide/resourceguide.html

Virginia Commonwealth University Health System
http://www.vcuhealth.org/Content.asp?PageID=P00748

Virginia Cooperative Extension
http://www.ext.vt.eduor

Virginia Tech Cook Counseling Center
http://www.ucc.vt.edu/eating.html

JUVENILE FIRESETTING

Introduction

When juvenile delinquency is mentioned, arson is not usually the first type offense that comes to mind. However, juveniles are arrested for a greater share of this crime than any other age group (Office of Juvenile Justice and Delinquency Prevention [OJJDP], 1997). All forms of arson cause hundreds of millions of dollars in damages and thousands of needless injuries and deaths each year. Almost 85 percent of the victims of fires started by children are the children themselves (Burn Institute, 2004).

Juvenile firesetters are typically defined as children or adolescents who engage in firesetting (Slavkin, 2000). Historically, juvenile firesetting has been viewed as a problem particular to "curious kids" (U.S. Fire Administration [USFA] of the Federal Emergency Management Agency [FEMA], 1997). Fires set by children playing with matches and lighters tend to be categorized as "accidental" or "children playing." However, juvenile firesetting includes the deliberate destruction of property by juveniles through fire, which sometimes results in casualties (USFA).

Federal Bureau of Investigation statistics for 1995 show that juveniles accounted for 52 percent of arson arrests (OJJDP, 1997). Although legal definitions of arson vary from state to state, if an evaluation reveals that there is sufficient evidence of malicious and willful firesetting, the juvenile may be charged with arson (OJJDP).

Etiology

At this point in time, specific information is not available about juvenile firesetting. Most attention to firesetting has been included within broader categories of delinquency and aggression in children (Kazdin, as cited in Slavkin, 2000). However, no separate review of firesetting from a developmental framework has been performed and it is believed that juvenile firesetting, much like other forms of delinquency and aggression in juveniles, can be explained as examples of problem behaviors. To explain a problem behavior as complex as firesetting, both individual and

environmental predictors must be examined simultaneously (Magnusson & Endler, as cited in Slavkin).

Table 1

Facts on Juvenile Firesetting

- More than 40,000 arson incidents in the U.S. each year are attributable to juvenile arson.
- Children under 18 account for 55% of the arrests for arson in the U.S.; nearly half of these are age 15 or less and five percent of those arrested are under age 10.
- An estimated 300 deaths, 2,000 injuries and $300 million in property damage in the U.S. result annually from fires set by youth.

Source: National Volunteer Fire Council, 2004.

Researchers are attempting to gather data about the children who are firesetters and their families, the factors driving their behavior, and the number of firesetting incidents associated with a child or adolescent who is being screened for firesetting behavior—even if a fire department has never responded to one of these fires (Wilcox, 2000). Further systematic study of this behavior is necessary in order to both understand this behavior and in order to design effective interventions for this behavior.

According to the USFA (1997), there is a general consensus as to what motivates children to become involved with fire. Curiosity motivates a significant portion of fire involvement. Developmental studies report that 40 percent of all children have engaged in fire play. Children who are firesetters are by nature risk takers and learn by doing. This trait, combined with ready access to matches and lighters, the belief that parents would not punish them, a poor understanding of fire, and lapses in supervision, accounts for many thousands of fires every year (USFA). Table 2 outlines some of the special circumstances surrounding juvenile firesetting.

Table 2

Factors Contributing to Juvenile Firesetting

Peer Pressure	25.5%
ADHD on Meds	22.5%
Environmental	12%
Curiosity	10%
None	7.5%
Other Learning Disabilities	5.5%
Mental Health Issues	5%
Lack of Adult Supervision	5%
Anger	3%
ADHD no Meds	1%
Possible ADHD	1%
Molestation	1%
Impulsivity	1%

Source: 1999/2000 Juvenile Firesetter Statistics, Burn Institute, 2004.

Profile of a Firesetter

According to Slavkin, while only 10 percent of juveniles who are arrested are juvenile firesetters, juvenile firesetters are more likely to be involved in a greater proportion of arrests overall, when compared to other arrested juveniles. A recent study determined that children classified as firesetters were 3.8 times more likely to be referred to juvenile court than nonfiresetters (Becker et al., 2004). Firesetters also engage in property destruction and crimes of physical aggression, such as forcible rape (11 percent), nonviolent sexual offenses (18 percent), vandalism (19 percent), and arson (35 percent) (Williams, as cited in Slavkin, 2000). Furthermore, adolescent firesetters have higher levels of antisocial behaviors, higher levels of aggression, and are more likely to connect their deviance with covert, aggressive expressions, when compared with other firesetters (Slavkin).

In all juvenile arson cases, the intensity and enormity of the fire tend to escalate with the age of the firesetter, with the "bigger the child, the bigger the fire" (Little, 1998). The average age of the firesetter is 11 (Little). The majority (80 percent) of juvenile firesetters are males, with the majority of juvenile arsons being committed by middle class Caucasian males (Little). The most common factor among all juvenile firesetters is a severely disturbed home environment with only one or no biological parents present in the home (Little). However, the strongest predictor of recidivism is the juvenile being in a home with a significant number of family problems (USFA, 1997). A pattern or history of multiple problems exists with firesetters. True juvenile arson is committed by a child who escalates to this stage of destructiveness, then a sequence of firesetting begins (Little).

Another characteristic of many juvenile firesetters is poor school work performance. Depending upon the age group, they may also have a history of truancy, disruptive behavior or hyperactivity (Little, 1998). Having poor relationships with peers and an inability to form close friendships is another common feature among juvenile firesetters. They tend to be social misfits. They lack assertiveness and can be easily manipulated and vulnerable to others. Some statistics show sexual abuse in both males and females is another common pattern for the juvenile arsonist, but the statistics to support this belief are limited, as until recently few questions were ever put to juvenile male firesetters regarding sexual abuse.

Environmental Issues

Further consideration should be given to the environmental characteristics that relate to juvenile firesetting. Variability in problem behaviors stems largely from differences in perceptions of environmental characteristics (Slavkin, 2000). Family, school, and peer problems are major influences that may promote firesetting and the continuation of patterns of firesetting (Kolko & Kazdin, as cited in Slavkin). Moderate youth firesetting has been associated with limited family sociability, whereas recidivism has been associated with lax discipline, family conflict, limited parental acceptance, and family affiliation (Kolko & Kazdin, as cited in Slavkin). Parental influences, such as limited supervision and monitoring, early learning experiences and cues with fire, parental distance and uninvolvement, and parental pathology, have been identified as predictors of juvenile firesetting (Kolko & Kazdin, as cited in Slavkin).

Comorbidity

Clinical studies that have examined juvenile firesetters find that many of these children have conduct and aggression problems. A recent study researched CD in conjunction with firesetting and found that approximately 30 percent of children participating in firesetting have been diagnosed with CD (Becker et al., 2004). Kolko, as cited by Slavkin (2000), found that early childhood firesetters can be characterized as having multiple behavior problems with few internalizing behaviors, such as depression, but many externalizing behaviors, such as rule breaking, aggression, and destruction. Some children are diagnosed as having attention deficit hyperactivity disorder (ADHD) (USFA, 1997). In a sample of hospitalized firesetters, Dr. David Kolko at the University of Pittsburgh Medical Center performed a study and found a higher level of delinquency, aggressiveness, and hyperactivity among firesetting children than in hospitalized children with no history of firesetting (USFA). Moreover, these children were less socially skilled, more aggressive, and presented with learning disabilities (USFA).

A recent study to investigate the prevalence of self-reported firesetting determined that female firesetters were more likely to have serious antisocial behaviors, participate in risk-taking activities, and have a substance abuse problem (Martin et al., 2004). Another study researched the potential link between firesetting and delinquency in adolescents (Becker et al., 2004). The study indicated that firesetters are more likely to be delinquent than nonfiresetters, while adolescents who continue in the practice of firesetting tend to be chronically criminal. The study also found evidence that firesetting may be related to extreme antisocial behavior which is not always accounted for by the presence of CD (Becker et al.).

Elements of Effective Treatments

Seven components common to effective juvenile firesetter programs have been identified and are described in the following listing (OJJDP, 1997).

1. A program management component to make key decisions, coordinate interagency efforts, and foster interagency support.
2. A screening and evaluation component to identify and evaluate children who have been involved in firesetting.
3. An intervention services component to provide primary prevention, early intervention, and/or treatment for juveniles, especially those who have already set fires or shown an unusual interest in fire.
4. A referral component to link the program with the full range of agencies that might help identify juvenile firesetters or provide services to them and their families.
5. A publicity and outreach component to raise public awareness of the program and encourage early identification of juvenile firesetters.
6. A monitoring component to track the program's identification and treatment of juvenile firesetters.
7. A juvenile justice system component to forge relationships with juvenile justice agencies that often handle juvenile firesetters.

Promising Treatment Approaches

There is no single identified treatment that is effective for treating this behavior. However, many treatments have proven beneficial in the management of this behavior. Many of these treatments are appropriately applied to firesetters with consideration for their age (Slavkin, 2000).

Cognitive Behavioral Therapy and Fire Safety Education

Cognitive behavioral therapy and fire safety education were found to significantly curtail firesetting and match play behaviors up to a year after intervention (Mental Health Weekly, 2001). Structured treatments designed to intervene with children who set fires were also found to have greater effect in the long-term than a brief visit with a firefighter (Mental Health Weekly). Both cognitive behavioral therapy and fire safety education were also shown to be effective at reducing other activities associated with firesetting, such as playing with matches and being seen with matches or lighters (Mental Health Weekly).

Irrespective of the seriousness of an incident or the child's motive in starting a fire, education regarding fire should be part of the intervention strategy. Such education should include information about the nature of fire, how rapidly it spreads, and its potential for destructiveness (USFA, 1997). Information about how to maintain a fire-safe environment, utilizing escape plans and practice, and the appropriate use of fire have been shown to be effective parts of comprehensive arson intervention programs, at least for younger juveniles (USFA).

Treatment Settings

Sometimes it is determined that the juvenile should be confined to a secure facility, residential treatment center, or hospital, although treatment for firesetting usually occurs in the least restrictive environment, depending on the seriousness of the offense and based on the needs of the child (USFA, 1997). Although many juvenile firesetters can be maintained in the community with appropriate supervision, careful assessment is crucial in order to provide the appropriate level of care (USFA). Such an assessment must consider the child, family, environment, facts about the fire and other fire history, as well as the child's reaction to the fire and sense of accountability (USFA). In addition, consideration should be given to ensure that the child does not pose a risk to others and the public safety is protected.

Treatment in a Residential Facility

Many programs will not admit a child with a history of firesetting for fear that the child will burn the facility (USFA, 1997). However, residential treatment can provide a safe and comprehensive setting for providing treatment to firesetters and provide treatment for any other co-occurring or familial issues.

Foster Care

There is a strong link between neglect and abuse and firesetting, so placing a child in a safe, supervised family setting can be very effective. When firesetting occurs as a result of neglect or abuse, the removal of the outside stressors can often cause the firesetting behavior to cease (USFA, 1997). Certain foster homes can be classified as "intensive" foster homes to allow for these difficult types of placements (USFA). Considerable attention is placed on fire safety practices and the foster parents receive in-depth training in working with difficult adolescents. Such training includes communication and problem solving skills, supervision, and restraint, behavior management and fire safety education for prevention and intervention (USFA). The children in foster care receive counseling, additional support services and the firesetter's parents are included as a component in the treatment plan (USFA).

It is very important that the risk be acknowledged in this and any other community-based treatment intervention. Emphasis is placed on training and making the firesetter aware of the potential dangers of firesetting (USFA, 1997).

Inpatient Hospitalization

Although inpatient facilities may also be reluctant to accept children with a history of firesetting, inpatient treatment is effective in treating these children when an effective treatment protocol is in place (USFA, 1997).

Dr. David Kolko at the University of Pittsburgh Medical Center has successfully treated firesetters in an inpatient treatment setting using intensive individual, group and family counseling with a cognitive treatment approach (USFA, 1997). This treatment approach challenges the child's rationalizations of the firesetting behavior. A skills-based approach is employed with particular emphasis placed on providing interpersonal and problem solving skills (USFA).

Ineffective Treatments

It is important to acknowledge that, while simple curiosity about fire is normal, firesetting is not, and that this behavior can be deadly. Leaving the child untreated, as recent studies have shown, is not beneficial, as children usually do not outgrow this behavior (Waupaca Area Fire District, 2002). Accordingly, the problems must be dealt with to prevent the fires from increasing in number and intensity. Also, past notions of burning the child to make them cease the undesired behavior is unfounded and shown to have no benefit (Waupaca Area Fire District).

Conclusion

In conclusion, current theories suggest that juvenile firesetting stems from the most obvious possible cause, a childhood environment filled with multiple and overwhelmingly negative factors. Furthermore, firesetting behaviors appear to differ as a result of both individual and environmental circumstances. The unique circumstances and characteristics of individual fire setters require extensive evaluation to determine the best course of treatment. An appropriate review of firesetting should include an examination of the firesetter's history, such as with prior fire learning experiences, cognitive and behavioral reviews, and parent and family influences and stressors (Slavkin, 2000).

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Wilcox, D. K., Ed.D. (2000). Oregon Office of State Fire Marshal, Juvenile Firesetter Intervention Program. Hot Stuff. How do we know what we know about firesetting behavior?

Additional Resources/Organizations

Focus Adolescent Services
Firesetting and Youth
877-362-8727 or 410-341-4342
http://www.focusas.com/Firesetting.html

SOS Fires: Youth Intervention Programs
The Youth Firesetting Intervention Resource Site
http://sosfires.com

U.S. Department of Justice Juvenile Justice
Office of Juvenile Justice and Delinquency Prevention
National Juvenile Firesetter/Arson Control and Prevention Program Clearinghouse
800-638-8736

U.S. Fire Administration of the Federal Emergency Management Agency (FEMA)
http://www.usfa.fema.gov.

USFA/FEMA Resource List: Primary Prevention School Curriculum and Programs

CTW'S Fire Safety Project
Sesame Street Fire Safety Resource Book
Children's Television Workshop
1 Lincoln Plaza
New York, NY 10023
212-595-3456

Learn Not to Burn
National Fire Protection Assn.
1 Batterymarch Park, P.O. Box 9101
Quincy, MA 02269
617-770-3000

Knowing About Fire
National Fire Service Support Systems
20 North Main Street
Pittsford, NY 14534
716-264-0840

Fire Safety Skills Curriculum
Program Manager
Office of the State Fire Marshal
3000 Market Street, NE, #534
Salem, OR 97310
503-378-3475

The Juvenile Crime Prevention Curriculum
Public Relations Department
The St. Paul Companies
385 Washington Street
St. Paul, MN 55102

Follow the Footsteps to Fire Safety
City of St. Paul
Department of Fire and Safety Services
Fire Prevention Division
100 East Eleventh Street
St. Paul, MN 55101
612-228-6203

Project Open House
Farmington Hills Fire Department
28711 Drake Road
Farmington Hills, MI 48331-2525
313-553-0740

Kid 's Safe Program
Fire Safety Education Curriculum for Preschool Children
Oklahoma City Fire Department Public Education
820 N.W. 5th
Oklahoma City, OK 73106
405-297-3314

SELF-INJURY

Introduction

Self-injury (SI), also called self-mutilation or cutting, is a highly stigmatized emotional disorder. SI is the repetitive, deliberate infliction of harm to one's own body. Injuries are severe enough to cause tissue damage and include cutting, carving, scratching, burning, bruising, biting, hitting, bone-breaking, skin picking, hairpulling, branding, and marking (Martinson, 1998; Boesky, 2002). According to Focus Adolescent Services (FAS) (2001), approximately one percent of Americans suffer from SI. While SI can occur in people regardless of age, gender, ethnicity, or socioeconomic status (FAS), much of the discourse is centered on adolescents, as this behavior tends to begin during adolescence (Boesky, 2002). Self-injurious behavior typically lasts for five to ten years, but can be longer if not properly treated (Conterio, 1998). Groups at risk for SI have been defined as those with borderline personality disorder (particularly females age 16 to 25), those who are in a psychotic state (mainly young adult males), children who are emotionally disturbed and/or battered, children who are mentally retarded or autistic, those with a history of self-injury, and those with a history of physical, emotional or sexual abuse (Mosby, 1994, as quoted in Martinson). Experts in the field believe that females are more likely to be self-injurers, given that females tend to internalize anger, as opposed to males, who externalize it (Engelgau, 2005). It is estimated that, out of every 200 females between the ages of 13 and 19, at least one will engage in SI (Leboeuf, 2003).

A study cited by Engelgau (2005) broke down the statistics for self-injury as follows:

Cutting	72 percent
Self-hitting	30 percent
Pulling hair	22 percent
Breaking bones	10 percent
Burning themselves	5 percent

Injuries such as self-hitting and head-banging are typically associated with individuals who are mentally delayed or autistic (Davies, 2005).

SI is thought to be a maladaptive coping mechanism that is utilized when the self-injuring youth experiences highly stressful or emotionally overwhelming circumstances. Many youth who engage

in SI describe an immediate relief from psychological and physiological tension as the act is completed (Martinson, 1998; Boesky, 2002). For some, the production of pain is a component of the tension relief, while for others the bloodletting is necessary to gain a sense of relief.

Adolescents self-injure for a variety of reasons including risk-taking, rebellion, rejection of parental values, or to be accepted (American Academy of Child & Adolescent Psychiatry [AACAP], 1999). Some injure out of desperation, anger, or for attention. Adolescents may attempt to hide the signs of their self-injuries for fear of being rejected or criticized (AACAP).

Table 1

Risk Factors for Self-Injury

- Being a member of an at-risk group
- Inability to cope with increased psychological/physiological tension in a healthy manner
- Feelings of depression, rejection, isolation, self-hatred, separation anxiety, guilt and depersonalization
- Command hallucinations
- Need for sensory stimuli
- Dysfunctional family

Source: Mosby, 1994, as quoted in Martinson.

Research has shown that SI is seldom an attempt at suicide. While some believe it to be in the spectrum of suicidal behavior, there is growing recognition that SI represents a different pattern of interpersonal dynamics that is distinct from clear suicidal intent. Favazza, as quoted in Martinson in 1998, states, "...a person who truly attempts suicide seeks to end all feelings, whereas a person who self-mutilates seeks to feel better." Additionally, SI is generally not associated with sexual gratification, body decoration (piercing and tattooing), cultural rituals that induce spiritual enlightenment, or trying to be cool or fit in (Focus Adolescent Services, 2001). There are, however, clusters of peer group acceptance of this behavior.

Etiology

Studies have shown that physical or sexual abuse and trauma are commonly associated with SI. A 1991 study found that exposure to sexual or physical abuse, emotional or physical neglect, and chaotic family conditions during childhood, latency, and adolescence strongly predicts the number and severity of cutting incidents (Van der Kolk et al., 1991, as cited in Martinson). However, some self-injurers never suffered childhood abuse. A 1994 study by Zweig-Frank et al. found no association among abuse, dissociation, and SI among patients diagnosed with borderline personality disorder (Martinson, 1998).

Invalidating Environment

Abuse aside, it has been suggested that growing up in a chronically invalidating home environment may be a chief factor for SI. Linehan (1993, as cited by Martinson) defines an invalidating environment as one in which the communication of private feelings is met by erratic, inappropriate, or extreme responses. That is, the expression of one's private emotions (painful or otherwise) is not validated, but is instead constantly punished or trivialized, thus dismissing the child's interpretation of his own actions or behaviors, as well as his behaviors' intentions and

motivations. Such persistent invalidation, Linehan concluded, can lead to subconscious self-invalidation, distrust, and feelings of "I never mattered."

Physical Causes

Studies have shown that low serotonin levels in the brain are associated with SI in some cases. Researchers have found that self-injurers have fewer platelet imipramine binding sites, which is a marker of serotonin activity. Studies done by Stoff et al. (1987), Birmaher et al. (1990) and others link low numbers of platelet imipramine binding sites to impulsive behavior and aggression (Martinson, 1998). Thus, it appears that SI may have similarities to other impulse control disorders such as kleptomania or compulsive gambling.

Comorbidity

Children with autism or mental retardation often exhibit self-injuring behavior. Other conditions with which SI is seen include Borderline Personality Disorder, Mood Disorders, Eating Disorders, Obsessive-Compulsive Disorder, Post-Traumatic Stress Disorder, Dissociative Disorders, Anxiety and/or Panic Disorder, Bipolar Disorder and Impulse Control Disorder Not Otherwise Specified. However, it is important to note that, while many self-injurers may be labeled as or diagnosed with one or more of these conditions, not all self-injurers meet the criteria for these conditions. Clinical studies examining the link between SI and some of these conditions have yet to be done (Martinson, 1998).

For some adolescents who engage in SI, development of Borderline Personality Disorder may carry over into adulthood (AACAP, 1999). It is possible that some young children will outgrow their self-injurious behavior. However, children with SI because of mental retardation and/or autism may continue these behaviors into adulthood (AACAP).

Diagnosis

The following symptoms are usually present for a diagnosis of SI: preoccupation with physically harming oneself: inability to resist self-injurious behavior resulting in tissue damage; increased tension before and a sense of relief after self-injury; and having no suicidal intent in self-mutilating (Alan, 2004).

Self-injurers tend to be secretive and are creative in disguising their wounds (The Columbus Dispatch, 2005). This makes it particularly difficult to diagnose. According to the National Mental Health Association, possible warning signs include unexplained frequent injury, e.g., cuts and burns, the wearing of long pants/sleeves in warm weather, low self-esteem, difficulty handling feelings, relationship problems, and poor functioning at work, school or home (1998).

Treatment

In treating SI, understanding the dynamics of the disorder and providing structure, safety, and consistency are crucial. The key to helping an adolescent stop engaging in SI as a coping mechanism or stress reliever is to understand why the youth self-injures. Self-injuring youth should have access to non-judgmental, compassionate medical care for their self inflicted wounds that does not take away their dignity or autonomy (Dallam, 1997 as cited in Martinson). Current approaches to the successful treatment of SI rely heavily on teaching children and adolescents new ways of coping with stressors so that underlying painful feelings can be dealt with (Martinson). In addition,

it is helpful for the mental health provider to assess whether there are any comorbid disorders and ascertain implications they would have on treatment.

There are neither proven treatments for SI nor certainty about which forms of psychosocial and physical treatments are most effective. To date, studies have been inconclusive, due to the insufficient number of patients in trials (Hawton, 2002). There is a need for further study in order to ascertain evidence-based treatments for SI. Efficacy of treatment interventions has been measured by the rate of repeated suicidal behavior, but other measures, such as compliance with treatment, depression, hopelessness, and reduced rates of repetition of deliberate self-harm, need to be examined (Hawton).

Promising Treatment Approaches

Treatment for SI may depend on the combination of dangerous behaviors that the child displays. Treatments shown to have promising results include the following:

Cognitive Behavioral Therapy – Cognitive behavioral therapy is generally recommended for treatment of SI. Cognitive behavioral therapy can be used to help combat the cognitive distortions and the belief that SI is an acceptable way to manage feelings (Beck, 1995, as cited in Jones, 2001).

Behavior Modification – Behavior modification may be used to eliminate some behaviors while establishing others (Jones). Psychodynamic therapy may be used to identify the lack of attachment (Hughes, 1998, as cited in Jones).

Addictions Model – An addictions model may be useful in very chronic cases. The addictions model is used to help the child or adolescent develop a sense of control over their life in other, more realistic ways. This model emphasizes techniques that help in building time between having the urges and acting on those urges (Alderman, 1997, as cited in Jones).

Therapy Principles

Therapy focuses on helping the self-injuring youth to:

- tolerate greater intensities without resorting to self-harm;
- develop the ability to articulate emotions and needs; and
- learn alternative, healthy means for discharging these feelings, such as problem-solving, conflict resolution, anger management, and assertiveness training (Rosen, Suyemoto & MacDonald, 1995, as cited by the Suicide Information & Education Centre [SIEC], 2001).

Pharmacological Treatment

Medications such as Selective Serotonin Reuptake Inhibitors (SSRIs) and opiate antagonists have been studied to control SI, but evidence of the effectiveness of pharmacological treatment of this behavior is inconclusive (Martinson, 1998). However, it appears that, so far, the most promising treatments are high-dose SSRIs and, in some cases, atypical neuroleptics (Martinson). For many individuals, a trial of medication may be a part of the treatment. There is virtually no situation in which medication alone would be appropriate treatment.

Hospitalization

Hospitalization is usually used as a last resort in the treatment of SI. Self-injuring youth are hospitalized in order to prevent them from hurting themselves, and intensive individual and group therapy, as well as medications, are readily available (Clarke, 1999, as cited in SIEC). However, hospitals are "artificially safe" environments, and it is more important to understand the feelings behind the self-injuring behavior and to teach better coping mechanisms that can be practiced in the real world (Martinson, 1998).

Table 2

Alternative Behaviors and Thinking Strategies for Self-Injuring Youth

- Increase ability to tolerate emotional distress
- Stay focused in the present
- Develop ways to self-soothe
- Find ways to distract yourself
- Postpone the self-injury
- Seek and try alternatives
- Choose the option that is the least damaging
- Carry only "safe" objects with you
- Find alternative means to express yourself, e.g., art, journaling
- Know what triggers the self-injury

Source: Healing Magazine, Spring 2003, Vol. 8, No. 1.

Family Involvement

Establishing and maintaining meaningful connections between family and teens is helpful for treating self-injury (Selekman, 2002). Self-injurious behavior can be especially harmful if the adolescent is also abusing drugs or alcohol; parents may address this issue by setting a model for their teenager, demonstrating responsible use of alcohol and displaying healthy ways of managing stress (Selekman).

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American Academy of Child & Adolescent Psychiatry
Self-Injury in Adolescents
http://www.aacap.org

Dominion Hospital
2960 Sleepy Hollow Road - Falls Church VA 22044
703-536-2000
http://www.dominionhospital.com

Focus Adolescent Services
Self-Injury
http://www.focusas.com/SelfInjury.html

Kennedy Krieger Institute
707 North Broadway – Baltimore, MD 21205
443-923-2900
http://www.kennedykrieger.org/kki_staff.jsp?pid=1888

National Mental Health Association
2001 N. Beauregard Street, 12th Floor - Alexandria, VA 22311
703-684-7722
Mental Health Resource Center
800-969-NMHA - TTY Line 800-433-5959

S.A.F.E. Alternatives (Self-Abuse Finally Ends)
7115 W. North Avenue, Suite 319 - Oak Park, IL 60302
800-DON'T CUT (366-8288)
http://www.selfinjury.com

TOURETTE'S DISORDER

Introduction

Tourette's disorder is an inherited neurological disorder characterized by repeated involuntary motor and vocal tics (Murphy et al., 2001). A tic is defined as a sudden, quick, recurrent, nonrhythmic motor movement or vocalization (Murphy et al.). The diagnosis of Tourette's disorder is generally made before the child's eighteenth birthday. However, the symptoms of Tourette's disorder generally appear between five and ten years of age, and usually begin with mild, simple tics involving the face, head, or arms (The Medical Center Online, 2002). With time, tics become more frequent and increase in variety, involving more body parts such as the trunk or legs, and often become more disruptive to activities of daily living (The Medical Center Online).

Tics can occur in any part of the body (American Academy of Child & Adolescent Psychiatry [AACAP], 2000). Chronic tics are the most prominent feature of Tourette's disorder (Kurlan, 2002). Simple vocal tics include chronic sniffing, grunting, throat clearing, clicking and screaming (Brody, 2005). Complex vocal tics can include speech interruptions such as stuttering and repetition (Brody). Simple motor tics may include eye-blinking, nose wrinkling, jaw thrusting, shoulder shrugging or neck jerking (Brody). More complex motor tics may take the form of jumping, touching, twirling when walking, retracing steps, imitating someone else's movements or making sudden obscene gestures (Brody). Expression of tics occurs in bouts that can be separated by seconds, hours, weeks or even months (Brody). Preceding the tic is the urge, much like that of an itch, where performing the tic provides the child with temporary relief (Brody).

In all patients diagnosed with Tourette's disorder, sudden, explosive outbursts of behavior are reported in approximately 25 percent of patients, but with such outbursts occurring more frequently in children than adults (Budman et al., 2000). Such volatile outbursts in children with Tourette's disorder are usually accompanied by feelings of mounting tension and spontaneous activation (Budman et al.).

Table 1

Facts about Tourette's Disorder

- Tourette's disorder is a tic disorder.
- It is a rare disorder found more commonly in males.
- When diagnosing Tourette's disorder, Wilson's and Huntington's diseases must be ruled out.
- It is treated with patient/family support and sometimes high-potency neuroleptics.

Source: Murphy et al., 2001.

Usually, facial tics such as rapid eye blinking or twitches of the mouth are the first indication to parents that their child may have Tourette's disorder (the National Alliance for the Mentally Ill [NAMI], 2002). In other children, tics of the limbs or involuntary sounds, such as throat clearing and sniffing, may be initial signs. Furthermore, vocal tic activity usually involves loud grunting, but may also include word shouting, with the words sometimes being obscenities. This type of activity is called coprolalia (Murphy et al., 2001). However, only 15 percent of all patients diagnosed with Tourette's disorder manifest this symptom (Tourette Syndrome Association, 2002). The natural course of Tourette's disorder varies and although Tourette's disorder symptoms can be very mild or quite severe, the majority of cases fall in the mild category (The National Institute of Neurological Disorders and Stroke, 1999).

Table 2

Categories of Tics

Simple

Motor—Eye blinking, head jerking, shoulder shrugging and facial grimacing

Vocal—Throat clearing, yelping and other noises, sniffing and tongue clicking

Complex

Motor—Jumping, touching other people or things, smelling, twirling about, and only rarely, self-injurious actions including hitting or biting oneself

Vocal—Uttering words or phrases out of context and coprolalia (vocalizing socially unacceptable words)

Source: Tourette Syndrome Association, Inc., 2002.

Tourette's disorder is a variable expressive disorder, which means that the Tourette's gene will result in differences of expression for different people (Ohio State University Medical Center, 2005). A recent study suggests that potentially 750,000 children in the United States have Tourette's disorder (Brody, 2005).

Diagnosis

An evaluation of the child's family history, along with general observation of the symptoms, is the most common method for diagnosing Tourette's disorder. However, before a diagnosis of Tourette's disorder is made, both motor and phonic tics must have been present for at least one year (The National Institute of Neurological Disorders and Stroke of the National Institutes of Health,

1995). Neuroimaging studies may be used to rule out other conditions that might be confused with Tourette's disorder, but there are no specific laboratory tests that definitively diagnose the disorder (The National Institute of Neurological Disorders and Stroke).

Etiology

Tourette's disorder is highly hereditary, with evidence supportive of genetic transmission (Murphy et al., 2001). However, no clinical studies have been performed to link the gene.

Further studies have shown that Tourette's disorder is an autosomal dominant disorder. This means that both males and females are affected, and one copy of the gene is necessary to have the condition (The Medical Center Online, 2002). However, Tourette's affects four times as many males as females (Brody, 2005). Tourette's manifests itself differently in males and females. Males are more likely to have chronic tics or full-blown Tourette's, while females are more likely to have obsessive-compulsive disorder (Ohio State University Medical Center, 2005).

A parent with Tourette's disorder has a 50 percent chance of passing the gene to a child (NAMI, 2002). However, a non-genetic cause for Tourette's disorder may cause up to 10 to 15 percent of children diagnosed with the disorder (Ohio State University Medical Center, 2005). Complications of pregnancy, low birth weight, head trauma, carbon monoxide poisoning, and encephalitis are thought to be associated with the onset of non-genetic Tourette's disorder (The Medical Center Online, 2002).

Comorbidity

According to NAMI, 40 percent of children and adolescents who have Tourette's disorder also have attention problems. Thirty percent have academic difficulties. In fact, it is thought that approximately 50 percent of children with Tourette's disorder meet criteria for attention deficit hyperactivity disorder (ADHD). Most have a normal intelligence and do not usually have primary learning disabilities. Some–25 to 30 percent–also experience symptoms of obsessive-compulsive disorder or have other forms of anxiety. Learning disabilities are common as well as developmental stuttering. Social discomfort, self-consciousness and depressed mood frequently occur, especially as children reach adolescence. Adolescents with Tourette's disorder may also display a variety of psychopathological conditions, such as depression, anxiety, and conduct disorder (Kurlan, 2002). Certain personality traits like irritability, argumentativeness, stubbornness and impulsivity may also represent the disorder (Kurlan).

Promising Treatments

There is no standard treatment modality for Tourette's disorder (Christophersen & Mortweet, 2001). Because manifestations of Tourette's disorder can be quite variable, children should be evaluated with great care in order to determine which aspects of the disorder are most disabling. For most children, this can serve as a guide to specifically target treatment interventions.

The development of a child diagnosed with Tourette's disorder may proceed normally and there may be no need for treatment (The Medical Center Online, 2002). However, if tics interfere with functioning, school performance, or other disorders present, treatment may be necessary. Children with Tourette's disorder can generally function well at home and in school. If they have

accompanying emotional or learning problems, they may require special classes, psychotherapy, and/or medication (The Medical Center Online).

When symptoms interfere with functioning, medication can effectively improve attention span, decrease impulsivity, hyperactivity, tics, and obsessive-compulsive symptom. However, behavioral interventions may also be useful for tics and symptoms associated with any co-occurring disorders (NAMI, 2002).

Table 3

Treatment for Tourette's Disorder

Specific Treatment for Tourette's disorder should be based on:
• age, overall health, and medical history,
• severity of tic behavior,
• tolerance for specific medications, procedures, and therapies,
• predictions for course of the disorder,
• personal opinion and preference.

Source: Ohio State University Medical Center, 2005.

Behavior Treatments

Positive reinforcement programs appear to be most helpful in the management of tic disorders (Bagheri, 1999). Goals for target behaviors may be categorized into two groups: (1) skill deficiencies, or areas that initially require concentration to build social and academic skills; and (2) behavior excesses, in which the goal is to help the patient decrease the frequency of these behaviors (Bagheri). It is imperative that caution is employed in the management of behavior excesses, since some children who undergo behavior modification to target the Tourette's symptoms have an exacerbation of symptoms (Bagheri). The following is a brief description of treatments for the behaviors associated with Tourette's disorder.

Habit covariance – refers to behaviors that, although different, frequently occur together. When one behavior changes, the other will as well. In children with Tourette's disorder, behavior treatments can prove effective for eliminating problem behaviors. However, all behaviors must be evaluated in term of age-appropriateness and properly assessed as not being appropriate for the child's age and relating to the disorder. Treatment of habit disorders must be implemented by a service provider with adequate training in order to be effective.

Habit reversal – may be effective in treating symptoms associated with Tourette's disorder. Habit reversal focuses on awareness, motivation, correction and prevention. Treating habit disorders must be implemented by a service provider with adequate training in order to be effective.

Source: Christophersen & Mortweet, 2001.

Pharmacological Treatment

Medication therapy can be utilized if the symptoms of Tourette's disorder are not amenable to non-drug interventions. Medication should be chosen based on the specific symptoms, as well as potential side effects of the medication. For example, in one patient, treatment of the tic may be the goal, while treatment of obsessive-compulsive features may take precedence in another (Kurlin, 2002). Dosages should be adjusted to the lowest appropriate level.

Most children with Tourette's syndrome require medication for up to one to two years, with 15 percent requiring long-term medication for tic control (Bagheri, 1999). When tics appear to be controlled for a long period, a slow and gradual reduction in medication should follow (Bagheri).

New research is being conducted to determine if a mixed dopamine agonist is safe in treating children with Tourette's disorder (Gilbert et al., 2003). Presently, Neuroleptics are used in treating children with severe tics which block dopamine transmission (Gilbert et al.). Major side effects and limited efficacy resulted from using this treatment (Gilbert et al.). Preliminary results of the study suggest potential benefit for children with chronic tic disorders and Tourette's disorder (Gilbert et al.).

As noted by Bagheri (1999), many patients with Tourette's syndrome have comorbid conditions and treatment for these conditions may be necessary. Treatment of comorbid ADHD has been controversial because of reports that stimulants hasten the onset or increase the severity of tics in some patients. However, stimulants alone may not substantially worsen the severity of the disorder and it may prove necessary to treat both the ADHD and the Tourette's syndrome with a stimulant in combination with either clonidine or guanfacine, or with a neuroleptic agent. However, according to Bagheri, the use of several drugs or medicines together in the treatment of Tourette's disorder should be minimized, especially in children (Bagheri). Table 4 shows the pharmacotherapy currently used with symptoms associated with Tourette's disorder.

Table 4

Pharmacotherapy of Tourette's Disorder

Tics	
Neuroleptics	Clonidine
Haloperidol	Other Drugs
Pimozide	Botulinum Toxin*
Fluphenazine	
Others	
Obsessive-Compulsive Disorder	
Clomipramine	Sertraline
Fluoxetine	
Attention Deficit Hyperactivity Disorder	
Clonidine	Stimulants
Tricyclic antidepressants	Methylphenidate
	Pemoline
	Dextroamphetamine

*Recent research has shown that, for a small number of patients who prove resistant to the motor medications, injections of botulinum toxin might be helpful.

Source: Kurlan, R., 2002.

Furthermore, according to Bagheri (1999), the treatment of the co-occurring obsessive-compulsive disorder with selective serotonin reuptake inhibitors (SSRIs) may prove effective. However, there is often a delay between commencement of medication and the intended pharmacological response. Moreover, this response may take as long as four to six weeks (Bagheri). Behavior therapy may also be used in treating the co-occurring disorder of obsessive-compulsive disorder.

Unproven Treatments

Research has shown the lack of evidence to support several treatments for Tourette's disorder. One such treatment is plasma exchange or intravenous immunoglobulin (IVIG), treatment. In fact, the National Institute of Mental Health (NIMH) and the Tourette Syndrome Association have advised that there is no evidence of their efficacy in children with Tourette's disorder and both treatments carry a potential for significant adverse reactions (NIMH, 2000).

Recent studies on treatment for Tourette's disorder attempted to relieve symptoms of the disease through deep brain stimulation (Brody, 2005). This type of treatment involves implanting electrodes in the brain where movement is controlled (Brody). This type of treatment is still highly experimental, with no data on its overall effectiveness, potential complications, side effects or duration of benefit (Brody).

Another new treatment approach involves temporarily paralyzing the affected muscle group with a botulinum toxin, which has the potential to suppress the tic for several months (Brody, 2005).

Other Important Treatment Elements

It is important to realize that simple inattention or hyperactivity by itself is not sufficient for diagnosis.

Cultural Considerations

Tourette's disorder is universally prevalent. However, the understanding of the disorder varies significantly in that tic symptoms are not considered a problem and are not usually mentioned to physicians (Mathews, 2001). Families consider the tics to be bad habits, and health care professionals, when consulted, often feel likewise. In Latin America countries such as Costa Rica, tics and obsessive symptoms presented by children with Tourette's disorder may be considered to be annoying and perhaps unattractive but not otherwise noticed (Mathews). Tics may even be thought to be voluntary in nature.

For example, symptoms that would be reported as causing significant impairment in children in the United States were often reported as having little or no impact, primarily because the needs and expectations of these cultures were different (Mathews, 2001). Studies reveal that, because concepts such as impairment can be culturally defined, *DSM-IV* and similar diagnostic criteria are not always adequate for purposes of identifying Tourette's disorder as a true mental health disorder. Such views certainly impact diagnosis and treatment.

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Tourette Syndrome Association, Inc. (2002). What is Tourette's Syndrome? [Online]. Available: http://www.tsa-usa.org. [October 2002].

Additional Resources/Organizations

American Academy of Family Physicians
Information from Your Family Doctor
Understanding Tics and Tourette's Syndrome
http://www.aafp.org/afp/990415ap/990415f.html

Children and Adults with Attention Deficit/Hyperactivity Disorders (CHADD)
8181 Professional Place, Suite 201 - Landover, MD 20785
National Call Center 800-233- 4050
http://www.chadd.org

Obsessive-Compulsive Foundation, Inc. (OCF)
90 Depot St., P.O. Box 70 - Milford, CT 06460-0070
203-878-5669
http://www.ocfoundation.org

The National Alliance for the Mentally Ill (NAMI)
Tourette's Syndrome
http://www.nami.org/Content/ContentGroups/Illnesses/Tourette.htm

The National Institute of Neurological Disorders and Stroke
The National Institutes of Health.
NIH Publication No. 95-2163. Tourette Syndrome.
http://www.ninds.nih.gov/disorders/tourette/detail_tourette.htm

Tourette Syndrome Association, Inc.
42-40 Bell Blvd. - Bayside, NY 11361
718-224-2999.
http://www.tsa-usa.org

Tourette Syndrome "Plus"
http://www.tourettesyndrome.net

Tourette Syndrome Association, Inc.
Greater Washington, DC Chapter (serving MD, VA, WV, and DC)
E-mail TSAGW@aol.com
877-295-2148 or 301-681-4133
http://www.tsa-usa.org

Virtual Hospital
Tourette Syndrome
http://www.vh.org/adult/patient/psychiatry/tourettesyndrome/index.html

ANXIETY DISORDERS

Introduction

Anxiety disorders are those disorders that cause children to feel frightened, distressed and uneasy for no apparent reason. Although most children have, through their childhood, fears and worries that can be labeled as anxiety, anxiety disorders occur when such worries or fears impede the child's daily activities or functioning (Christophersen & Mortweet, 2001). When both symptoms of anxiety and impairment are present, an anxiety disorder may be present.

Anxiety disorders are one of the most common mental health problems that children encounter. The combined prevalence of anxiety disorders is higher than almost all other mental disorders of childhood and adolescence (Costello, as cited by the U.S. Department of Health and Human Services, 1999). Comprehensive reviews of epidemiological studies reveal that, in children between the ages of 6 and 17 years old, anxiety disorders occur in as many as six to eight percent of the population (Christophersen & Mortweet, 2001). Other estimates state that five to 20 percent of children will be diagnosed with some type of anxiety disorder (The Medical Center Online, 2002). Children with anxiety disorders have a strong risk factor for anxiety disorders in adulthood (Christophersen & Mortweet). Also, many adults report that their problems with anxiety stemmed from childhood and adolescence (Ollendick and King, 1998). Table 1 describes characteristics of anxiety disorders.

Etiology

There is little information available regarding the causes of anxiety disorders. Much attention has been on the risk factors for developing an anxiety disorder in childhood (Christophersen & Mortweet, 2001). Although studies have indicated that children are more likely to develop an anxiety disorder if their caregivers have anxiety disorders, it has not been shown whether biology or environment plays the greater role in the development of these disorders (National Alliance for

Mentally Ill [NAMI], 2002). High levels of anxiety or excessive shyness in children aged six to eight may be indicators of a developing anxiety disorder (NAMI).

Table 1

Characteristics of Anxiety Disorders

Anxiety or ***fear*** is defined as a complex pattern of three types of reactions to a perceived threat.
Types of Reactions
1. Overt Behavioral Responses - Running away, trembling voice, closing eyes
2. Physiological Responses - Changes in heart rate and respiration, muscle tension, stomach upset
3. Subjective Responses - Thoughts of being scared, images of bodily harm

Source: Lang, as cited in Winder et al., 2002.

There are several biological factors which are thought to cause or contribute to the development of anxiety disorders. In 2002, researchers at the National Institute of Mental Health (NIMH) noted that the development of some cases of obsessive-compulsive disorder occur following infection or exposure to streptococcus bacteria. As with many mental disorders, there has been a genetic predisposition shown in the development of these disorders (Center for the Advancement of Children's Mental Health at Columbia University, 2000).

Table 2

Anxiety Disorders in Children

• The combined prevalence of anxiety disorders is higher than virtually all other mental disorders in children and adolescents (U.S. Department of Health and Human Services, 1999).
• Some research has found that girls tend to show higher levels of trait anxiety than do boys, but these differences may be more related to social expectations (Huberty, 2002).
• Girls may be more concerned about receiving approval from adults, whereas boys appear more concerned about how they are perceived by their peers (Dweck & Bush, as cited in Huberty, 2002).

Source: Virginia Commission on Youth Graphic of Citations Noted, 2002.

Assessment and Diagnosis

Because children display and react to symptoms of anxiety differently, diagnosis can be difficult. It is imperative to ascertain whether the behavior exhibited by the child is an anxiety disorder or is simply the method the child has chosen to respond to the stressor. Any attempt to define anxiety disorders in children must be considered along with what constitutes normal anxiety. The first clearly recognizable stage of anxiety usually occurs when babies are about seven to nine months of age when the child is able to begin to distinguish individuals (Huberty, 2002). Such anxiety behavior is normal and age appropriate. The presence of an anxiety disorder may be detected when children experience confusion and distortions of perception which are not related to the child's age and development. Service providers must take care in distinguishing anxiety and how it reflects the child's cognitive development.

King and MacFarlane, as cited in Winder et al. (2002), cite studies which revealed that both the number and the intensity of fears experienced by children decline with age. Also, certain fears appear to be more common at particular ages. Furthermore, they point to a preponderance of evidence suggesting that girls exhibit a greater number of fears than boys. The intensity and number of fears, however, may vary within different age groups.

Assessment for anxiety disorders should include a medical history and a physical examination within the past 12 months, with special focus on conditions that may mimic anxiety disorders (American Academy of Child & Adolescent Psychiatry [AACAP], 1997). As noted by Huberty (2002), the service provider, in diagnosing anxiety disorders in children, should also ensure that the child meets the appropriate *DSM-IV* diagnostic criteria and identify those which may be particularly pertinent to children and adolescents. Furthermore, the service provider must be familiar with normal developmental patterns associated with anxiety in order to determine whether the child's behavior can be attributed to an anxiety disorder or whether the behavior can be explained by the child's developmental stage. Assessing anxiety is rather complicated, so assessment may require a multi-method, multi-setting, and multi-trait approach. There are many methods of assessment and not all may be needed or easy to utilize in particular situations, so approaches should emphasize objective measurement techniques.

Categories

There are several anxiety disorders defined in the *DSM-IV*, which characterizes the symptoms that children experience with an anxiety disorder. It should be noted that separation anxiety disorder (SAD) is the only anxiety disorder that specifically applies to children (Huberty, 2002). Other anxiety disorder diagnoses may be applied to children and adolescents if their behavior is consistent with the criteria set forth in the *DSM-IV*.

The following anxiety disorders are covered in this section:

- *Separation Anxiety Disorder (SAD)* — characterized by the child's excessive distress when separated from persons to whom there is a strong attachment and by the avoidance of situations that require separation. This is the only disorder specifically ascribed to children (Huberty, 2002 and Winder et al., 2002).
- *Obsessive-compulsive Disorder (OCD)* — characterized by repeated, intrusive, and unwanted thoughts and or rituals that seem impossible to control. The former are known as obsessions and the latter known as compulsions. Compulsive behaviors often include counting, arranging and rearranging objects, and excessive hand-washing (NAMI, 2002).
- *Post-traumatic Stress Disorder (PTSD)* — Persistent symptoms of this disorder occur after experiencing a trauma such as abuse, natural disasters, or extreme violence. Symptoms include nightmares, flashbacks, the numbing of emotions, depression, being easily startled and feeling angry, irritable, and distracted (NAMI).
- *Phobias* — A phobia is a disabling and irrational fear of something that really poses little or no actual danger. The fear leads to avoidance of objects or situations and can cause extreme feelings of terror, dread, and panic, which can substantially restrict one's life. Specific phobias concentrate on particular objects, e.g., certain animals, or situations, e.g., confined spaces. Common symptoms for children and adolescents with social phobia are sensitivity to criticism, trouble being assertive and low self-esteem (NAMI).

- *Generalized Anxiety Disorder* — Chronic, exaggerated worry about everyday, routine life events and activities that lasts at least six months is indicative of generalized anxiety disorder. Children and adolescents with this disorder usually anticipate the worst and often complain of fatigue, tension, headaches, and nausea (NAMI).

Comorbidity

Because anxiety does not always follow a normal developmental pattern, it can be particularly difficult to classify and diagnose as a mental disorder. Furthermore, it is also very likely to be comorbid with many other disorders. As noted by Huberty (2002), when more than one diagnosis was given for mental health disorders in children, anxiety disorders were identified in 50 to 75 percent of the cases. Studies have revealed anxiety disorders to be comorbid with attention deficit disorder, conduct disorder, depression, and dysthymia. Moreover, it has been found that anxiety appears to precede depression and conduct disorders precede depressive disorders.

Additional findings by Huberty (2002) relate to the relationship of anxiety to depression. Children who are given either diagnosis are likely to show symptoms of the other disorder. Thus, singular diagnoses of anxiety or depression are difficult to obtain. Accordingly, some differences have been found between these disorders and may prove helpful in understanding the co-morbidity between these disorders. Findings include that depressed children demonstrate a more negative attitude and a greater inclination for anger and impulsivity. Moreover, depressed children were more difficult to manage than children having anxiety disorders.

Table 3

Comorbidity of Anxiety Disorders

- At least 1/3 of children with this disorder meet criteria for two or more anxiety disorders.
- 28 to 69% have comorbid major depression.
- There is an association between ADHD and anxiety disorders.

Source: American Academy of Child & Adolescent Psychiatry, 1997.

Substance abuse may also co-occur with anxiety disorders because alcohol and other substances are frequently used in order to reduce the symptoms of anxiety (Jellinek, Patel, & Froehle, 2002). However, the use of substances can ultimately worsen symptoms and certain substances actually can generate anxiety symptoms.

A recent study examined a link between anxiety disorders and anorexia or bulimia nervosa (Kaye et al., 2004). A large portion of the participants in the study reported the onset of obsessive-compulsive disorder, social phobia or generalized anxiety disorder in childhood prior to the development of an eating disorder (Kaye et al.). Preliminary results of the study support the conclusion that anxiety disorders are a vulnerability factor which can lead to the development of an eating disorder (Kaye et al.).

Evidence-based Treatments

The treatment of anxiety disorders in children is usually multimodal in nature. Wide-ranging treatment may include education of the child and parents about the disorder, consultation with

school personnel and primary care physician, behavioral intervention, psychodynamic psychotherapy, family therapy, and pharmacotherapy (AACAP, 1997). The two main components of treatment—behavioral interventions and pharmacologic treatments—will be discussed in the following paragraphs. However, it is important to link treatment to the referring questions and to the desired outcomes which are in the best interests of the child (Huberty, 2002).

Most of the treatments discussed are considered to be probably efficacious, meaning that they have had positive results in a clinical setting. These apply to the psychotherapies outlined in the paragraphs which follow. For childhood phobias, contingency management was the only intervention deemed to be well-established and which applied the American Psychological Association Task Force criteria (U.S. Department of Health and Human Services, 1999). Accordingly, this particular intervention is deemed to be effective in a practice setting.

Behavioral Interventions

Cognitive Behavioral Therapy

According to Christophersen and Mortweet (2001), probably one of the most well-established treatments for treating children with an anxiety disorder is cognitive-behavioral therapy (CBT). CBT involves teaching children to deal with their fears by modifying the way they think and behave by practicing new behaviors. The use of CBT has been shown to be effective in addressing anxiety in children and focuses on how children learn to be anxious and the contingencies in their environment. Like behavioral therapy, cognitive behavioral therapy teaches children to react differently to the situations that trigger anxiety symptoms. This form of treatment differs from behavioral therapies, in that greater focus is placed on showing children how to control thoughts that are linked with anxiety (Center for Advancement of Children's Mental Health at Columbia University, 2000). Post-treatment assessments have revealed that CBT has also proven effective in treating the co-morbid condition of depression (Hibbs & Jensen, 1996). Follow-up studies have also revealed that a high level of caregiver involvement with CBT is necessary for successful outcomes (Hibbs & Jensen).

Behavioral Therapy

Another promising treatment for childhood anxiety disorders, as noted by the Center for Advancement of Children's Mental Health at Columbia University (2000), is behavioral therapy. Behavioral therapy focuses on changing specific actions and uses several techniques to decrease or stop unwanted behavior. One technique trains children to perform a special breathing exercise, diaphragmatic breathing, to reduce anxiety. This has been shown to help children who hyperventilate. Another form of behavioral therapy—exposure therapy—gradually exposes the child to what frightens them and seeks to assist the youngster in coping with his or her fears.

CBT and Family Intervention

A more recent study added a parent component to CBT, which significantly enhanced reduction in post-treatment anxiety disorder compared with CBT alone (Barrett et al., as cited by the U.S. Department of Health and Human Services, 1999). According to Christophersen and Mortweet (2001), a more structured parent training component was added to treat children with anxiety disorder, generalized anxiety disorder and social phobia. The content of this treatment focuses on behavior management strategies such as ignoring anxious behavior, parental awareness of responses and training in problem-solving skills. Treatments were effective in reducing anxiety symptoms of children. Older children did not demonstrate a huge difference in improvement with this addition to

CBT, but the family component enhanced the effectiveness of the CBT based on the parental ranking of symptoms and especially for younger children.

Interventions that target the reduction of anxiety symptoms in parents are thought to also enhance treatment outcomes in children. It may be difficult for parents with anxiety and phobic symptoms to be actively involved in their child's treatment. Thus, working with parents and children to reduce parental symptoms may be one component of successful treatment approach ((Hibbs & Jensen, 1996, p. 79).

CBT and Group Interventions

According to Christophersen and Mortweet (2001), another promising variation of CBT is CBT combined with group treatment. This intervention provides contingency management and self-control strategies. Studies on this intervention have shown that participating children demonstrate significant improvements during the study period. Preliminary evidence of group CBT for preventing anxiety disorders has also been reported. This treatment approach, as discussed by Christophersen and Mortweet, has been employed with positive findings and programs utilizing the *Group Coping Koala Workbook,* developed by Barrett, have been found to be particularly effective.

Systematic Desensitization

As researched by Ollendick and King (1998), systematic desensitization has gained support as being effective for treating fears and fearful behaviors. The premise of systematic desensitization is that fears and phobia are conditioned responses that can be unlearned through specific counter-conditioning procedures. Systematic desensitization consists of three components (Ollendick and King):

- Induction of an incompatible response (relaxation);
- Development of a fear-producing hierarchy: and
- The systematic, graduated pairing of items in the tier with the incompatible response.

The basic assumption of this technique is that a fear response can be inhibited by substituting an activity which is antagonistic to the feared response. This is achieved by exposing children, in small graduated steps, to the feared situation while they are performing a relaxing act. Studies have shown systematic desensitization to have some promising results in overcoming phobias.

Modeling

As noted by Ollendick and King (1998), modeling involves learning through the observation of others. It entails demonstrating nonfearful behavior in the anxiety-provoking situation and showing the child a more adaptive response. Modeling, which can be filmed or performed in a live "face to face" scenario, is useful in assisting children in learning how to approach the feared object or situation (Ollendick and King). Results have been shown to be efficacious, especially for participant modeling, which involves allowing the child physical contact with the models and the object causing the fear. Modeling is especially beneficial in allowing the child to adapt their behavior. Studies have shown participant modeling to have greater efficacy than systemic desensitization and filmed/live modeling.

Pharmacological Treatment

Pharmacotherapy can be effective in treating anxiety disorders in children but should not be used as the sole intervention, but in conjunction with behavioral or psychotherapeutic treatments (AACAP, 1997). The practice guidelines offered by AACAP acknowledge the limits of pharmacological treatments of anxiety for children and suggest that they be utilized in combination with other treatment modalities (Christophersen & Mortweet, 2001).

Research conducted to date has indicated that selective serotonin reuptake inhibitors (SSRIs) may provide effective treatment of separation anxiety disorder and other anxiety disorders of childhood and adolescence (U.S. Department of Health and Human Services, 1999). Advantages of SSRIs include the low side effects profile and relative safety in overdose, although passing anxiety and agitation may occur when commencing or increasing the dosage of SSRIs (AACAP, 1997).

Tricyclic Antidepressants (TCAs) are also thought to show promising results in treating children with anxiety disorders but studies assessing TCA have had conflicting results (AACAP, 1997). There are case reports of children and adolescents with panic disorder receiving benefit from TCAs.

Monoamine oxidase inhibitors, MAOIs, are another type of antidepressant used for treating anxiety disorders, specifically for people with panic disorder and social phobia (National Institute of Mental Health [NIMH], 1994). It is recommended that people using MAOIs also be placed on a restrictive diet, given that these medications may interact with some foods and beverages (NIMH). These interactions can lead to dangerous elevations in blood pressure and other potentially life-threatening reactions (NIMH).

The practice guidelines offered by the AACAP (1997) also cite several studies indicating that benzodiazepines may be useful in treating anxiety disorders, especially for anxiety associated with medical procedures in children. Clinical trials indicate that benzodiazepines are tolerated by children with minimum adverse effects. Sedation, drowsiness, and decreased mental acuteness are the most common side effects. Due to the potential for tolerance and dependence in children, it is recommended that benzodiazepines be used for only short-term treatment.

Unproven Treatments

Some treatments are either thought to be unproven in treating anxiety disorders or there is no research supporting the effectiveness of treatment. For example, there are virtually no controlled studies evaluating the efficacy of antihistamines for anxiety disorders in children (AACAP, 1997). Furthermore, due to the risks of impaired cognitive functioning and tardive dyskinesia, neuroleptics are not recommended for treating anxiety symptoms in children who do not have a co-occurring diagnosis of Tourette's syndrome or psychosis (AACAP). The benefits of herbal and over-the-counter substances are also considered to be unproven; use could actually impede the diagnosis of anxiety disorders because many of these substances may contain ingredients that cause symptoms of anxiety (Chen et al., 2002).

Cultural Considerations

In some cultures, the understanding of anxiety disorder varies significantly. Many cultures do not use the term "anxiety". According to research conducted by Chen et al., (2002), the Asian culture does not use "anxiety" to describe the symptoms accompanying the disorder and Asian patients utilize terminology such as "being nervous" or "being tense." In many cultures, including

the Asian culture, representing oneself as being anxious is viewed as a sign of weakness. Therefore, Asian cultures may describe symptoms of anxiety with physical complaints since physical problems are more acceptable. Furthermore, the authors purport that cultures may understand their symptoms as a defined illness that is known only to the specific native culture. This can make diagnosis complex. Also, there are Chinese pharmaceuticals which may cause or worsen anxiety because they may cause increased heart rate, blood pressure and sweating. Proper evaluation is necessary to ensure that anxiety symptoms are not side effects caused by these types of pharmaceuticals. Moreover, because anxiety disorders and the symptoms that accompany the disorders are shaped by cultural beliefs, it may take a thorough assessment to identify anxiety disorders in children.

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Anxiety & Depression Resource Organization
http://www.freedomfromfear.com

AnxietyCoach.com
http://www.anxietycoach.com/resources.htm

Anxiety Disorders Association of America (ADAA)
8730 Georgia Avenue, Suite 600 - Silver Spring, MD 20910
240-485-1001
http://www.adaa.org

Anxiety-Panic.com
http://www.anxiety-panic.com

Anxiety-Panic-Stress
http://www.anxiety-panic-stress.com

Freedom from Fear
http://www.freedomfromfear.com/treatment.asp?data=2

National Anxiety Foundation
http://www.lexington-on-line.com/naf.html

National Center for PTSD
http://www.ncptsd.org

Obsessive-Compulsive Foundation, Inc. (OCF)
90 Depot St., P.O. Box 70 - Milford, CT 06460-0070
203-878-5669
http://www.ocfoundation.org/indright.htm

PTSD Support Services
http://www.ptsdsupport.net

Social Phobia/Social Anxiety Association
http://www.socialphobia.org

Virginia Resources
Anxiety Disorders
SeniorNavigator.com
http://www.seniornavigator.com/content/HealthInformation/anxiety.asp

Family Help in Virginia
Focus Adolescent Services
http://www.focusas.com/Virginia.html

University of Virginia Health System
P.O. Box 800224 - Charlottesville, VA 22908
434-924-3627
http://www.healthsystem.virginia.edu/uvahealth/peds_mentalhealth/gad.cfm

Virginia Commonwealth University Health System
1250 East Marshall Street - Richmond, VA 23298
804-828-9000
http://www.vcuhealth.org/Content.asp?PageID=P01605

MOOD DISORDERS

Introduction

Children, like adults, experience depression and accompanying feelings of frustration, disappointment or sadness. The American Academy of Child & Adolescent Psychiatry (AACAP) estimates that, at any given time, approximately five percent of children and adolescents suffer from depression (2004). Unfortunately, children may not be able to accurately describe their symptoms or how they feel and frequently do not understand the concepts associated with being depressed.

Table 1

Prevalence of Mood Disorders in Children

- 10 to 15 percent of all children and adolescents will experience some symptoms of depression.
- 7-14% of children will experience an episode of major depression before the age of 15.
- 20-30% of adult bipolar patients report having their first episode before the age of 20.
- Out of 100,000 adolescents, 2,000 to 3,000 will have mood disorders; of this number, 8-100 will commit suicide.

Source: Brown, 1996 and the Substance Abuse and Mental Health Services Administration, 2004.

According to research conducted by the Virginia Treatment Center for Children (2002), mood disorders in children are prevalent but often poorly recognized. Mood disorders manifest

themselves in varying forms and with varying intervals and intensity. Also, the symptoms of mood disorders in children are different from those in adults, with mood disorders often accompanied by other psychiatric disorders which can mask depressive symptoms (Brown, 1996). Furthermore, many physicians regard depression and bipolar disorder as illnesses affecting adults. Until the 1980's, mood disorders were not included in the category of childhood diagnosed psychiatric illnesses (Brown).

According to Brown (1996), the following behaviors may be associated with mood disorders in children:

Preschool Children

These children exhibit a dismal appearance and may be less lively when compared to their peers. They also may be tearful or spontaneously irritable, not just upset when they do not get their way. Furthermore, these children make frequent negative self-statements and are often self-destructive.

Elementary School-Aged Children and Adolescents

These children may exhibit disruptive behavior, academic difficulties, and peer problems. Other symptoms include irritability and aggression, suicidal threats, and worsening school performance. Parents often say that nothing pleases the children; the children may state that they hate themselves and everything around them.

The following paragraphs address major depression, dysthymia and bipolar disorders. The following are descriptions of these classifications as outlined by the Center for Advancement of Children's Mental Health at Columbia University (2000) and Wisconsin United for Mental Health (2002):

Major depressive disorder – Major depressive disorder is characterized by one or more major depressive episodes, lasting from 7 to 9 months on average. Depressed children exhibit symptoms of sadness, disinterest and are critical of themselves. They may feel unloved, pessimistic, or hopeless. Additionally, they think that life is not worth living, and have suicide thoughts. Depressed children and adolescents are often irritable and aggressive and may also be indecisive, have concentration problems, lack energy, and exhibit irregular sleep habits. Associated anxiety symptoms include fears of separation or reluctance to meet people, and physical symptoms, such as general aches and pains, stomachaches, and headaches. In fact, such physical symptoms are more common in depressed children than in adults with depression.

Dysthymia – This disorder is a less severe type of depression but still involves long-term, chronic symptoms that are not disabling, but keeps a child from functioning well or from feeling good. Many children with dysthymia also experience major depressive episodes at some time in their lives. The average duration of a dysthymic period in children is about four years and frequently, the child is depressed for such a long period that they do not perceive that their mood is unusual. Accordingly, they may not complain of feeling depressed. Seventy percent of children and adolescents with dysthymia eventually experience an episode of major depression.

Bipolar disorder – Bipolar disorder is another type of depression, also called manic-depressive illness. This disorder is not as prevalent as other forms of depressive disorders. Bipolar disorder is characterized by shifts of mood with severe highs (mania) and extreme lows (depression). Frequently, the mood switches are rapid but are usually gradual in nature. When in a depressed episode, the child may have any or all of the symptoms of a depressive disorder. When in the manic episode, the child may be overactive, over talkative, and have a great deal of energy. Symptoms of mania may affect thinking, judgment, and social behavior in ways that cause serious problems and even embarrassment. Episodes of mania may develop into psychosis, which causes the child to lose of touch with reality. Moreover, hallucinations or delusions may accompany mania.

Once regarded as a rare occurrence in children, bipolar disorder is indicated in approximately seven percent of children in treatment in psychiatric facilities (National Alliance for the Mentally Ill [NAMI], 2004). Frequently, the bipolar disorder begins in adolescence, with the first onset being a depressive episode. The first manic features may not occur for months or years later. There may be behavioral differences in children having bipolar disorder which distinguishes it from the disorder in adults (Child and Adolescent Bipolar Foundation, 2002). Frequently, the symptoms of both states occur together in varied stages (depressed mood with high energy) or in quick succession within a single day (called rapid cycling) (Child and Adolescent Bipolar Foundation, 2002). The cycling may be fast (often many times a day) and the episodes are short (rarely more than days of any one state) (Chandler, 2001). Evidence indicates that bipolar disorder beginning in children or adolescents may also be more severe than the form of bipolar disorder associated with older adolescent and adult-onset (Focus on Adolescent Services, 2000).

Etiology

According to the U.S. Department of Health and Human Services (1999), the exact causes of mood disorders are not known. While research on adults indicates that contributing factors may be both biological and psychosocial, there has been little research on the causes of depression in children. Research has been conducted on children admitted in mental health clinics diagnosed with major depressive disorder and, while these may be the more severe cases, this research revealed that 20 to 50 percent of these children have a family history of depression (Puig-Antich et al., Todd et al., Williamson et al., Kovacs, as cited by the U.S. Department of Health and Human Services). Children who develop major depression are more likely to have a family history of the disorder than children having onset of depression in adolescence or adulthood (National Institute of Mental Health [NIMH], 2000). However, research did not shed light on whether the ties between family history and childhood onset of depression stem from genetic factors, or whether depressed parents create an environment that increases the likelihood of their children developing a mental disorder (U.S. Department of Health and Human Services, 1999).

Research has revealed that bipolar disorder may have a significant genetic connection. According to study data cited in 2002 by the Child and Adolescent Bipolar Foundation:

- When one parent has bipolar disorder, the risk to each child is 15 to 30 percent.
- When both parents have bipolar disorder, the risk increases to 50 to 75 percent.
- The risk in siblings and fraternal twins is 15 to 25 percent. The risk in identical twins is approximately 70 percent.
- Bipolar disorder can skip generations and take different forms in different individuals.

Family history of drug or alcohol abuse also may be associated with bipolar disorders in teens (AACAP, 2000).

According to Murphy et al. (2001), neurotransmitter evidence points to "abnormalities amine neurotransmitters as medicators of depressive states." Furthermore, the evidence strongly points to deficiencies in norepinephrine and serotonin. Finally, other neuroendocrine anomalies in the hypothalamic-pituitary-adrenal axis are present in depression, which indicates a link to neuroendocrine.

The U.S. Department of Health and Human Services (1999) outlines several different causes for mood disorders and indicates that the prevailing hypothesis is that mood disorders are caused by an absolute or relative deficiency of monoamine transmitters in the brain. Although there are questions about this being the primary cause, findings have confirmed that monoamine impairment is one the manifestations, or correlates, of depression.

Women are two or three times more likely to experience a major depressive episode in the course of their lifetime (Obesity, Fitness & Wellness Week, 2004). A new study examining the link between mood disorders and females has determined that there may be a connection between mood disorders and fluctuating estrogen and progesterone levels (Obesity, Fitness & Wellness Week). The Child and Adolescent Bipolar Foundation has suggested that the onset of menstruation may trigger the disorder in females (2002). Additional research is needed to determine specific genetic markers to better understand the balance between estrogen, progesterone, testosterone, and other reproductive hormones and the increase of women's susceptibility to depression (Obesity, Fitness & Wellness Week).

Risk Factors

According to research compiled by NIMH (2000), boys and girls during childhood are equally at risk for mood disorders. However, during adolescence, girls are twice as likely as to develop depression. Other risk factors compiled by the NIMH include:

- Stress
- Cigarette smoking
- A loss of a parent or loved one
- Break-up of a romantic relationship
- Attention, conduct or learning disorders
- Chronic illnesses, such as diabetes
- Abuse or neglect
- Other trauma, including natural disasters

Comorbidity

Research compiled by the U.S. Department of Health and Human Services (1999) asserts that two-thirds of children with mood disorders usually have another mental disorder. These findings also assert that the most commonly associated disorders are dysthymia, anxiety disorders, disruptive disorders, or a substance abuse disorder. Additional research indicates that, when more than one diagnosis is present, depression is more likely to begin after the onset of the comorbid disorder. The exception to this is substance abuse. Additionally, conduct disorder may arise independently in response to inadequate parental supervision and control.

The general population diagnosed with bipolar disorder has an alcoholism rate and a drug-abuse rate that is triple the remainder of the population (Kluger & Song, 2002). Accordingly, this must be considered in the evaluation of children for bipolar disorder.

Table 2

Comorbidity and Mood Disorders

- 40 to 70 percent of depressed children and adolescents have comorbid psychiatric disorders.
- 30 to 80 percent have comorbid anxiety disorders.
- 10 to 80 percent have disruptive disorders (ADHD, oppositional defiant disorder).
- 20 to 40 percent involve substance abuse.

Source: Yaylayan, 2002.

Diagnosis

Proper assessment of mood disorders in children is essential in early intervention and treatment. According to the AACAP (1998), various mechanisms may be employed in diagnosing mood disorders in children. One of the most useful methods is the comprehensive psychiatric diagnostic evaluation, including interviews with the child, parents, and additional interviewees such as teachers and social services personnel. The behavior of depressed children and adolescents differs from that of depressed adults, making diagnosis more difficult (AACAP, 2004). The psychiatric assessment of depressed children must be performed by a clinician trained to consider how developmental and cultural factors impact the display of symptoms and the child. Additionally, it is important for the clinician to appraise the child's functioning, as well as symptoms both initially and on an ongoing basis. This is necessary in order to monitor the child's response to treatment.

Bipolar Disorder

The following information is attributed to the Substance Abuse and Mental Health Services Administration [SAMHSA] (2003). Even though research indicates that bipolar disorder may be caused by a chemical imbalance, currently there are no lab tests used for diagnosis. This disease may often go unrecognized by the individual, as well as by family and friends A complete medical evaluation is needed in order to rule out other possible mental of physical disorders. A psychiatrist trained for diagnosis and treatment of bipolar disorder should be consulted for accurate diagnosis. When diagnosing bipolar disorder, evaluation of frequency, intensity, number are essential (Hitti, 2005).

In diagnosed bipolar disorder, one of the biggest challenges has been to differentiate children with mania from those with attention deficit hyperactivity disorder (ADHD). Both groups of children present with irritability, hyperactivity and distractibility. So these symptoms are not useful for the diagnosis of mania because they also occur in ADHD. But, elated mood, grandiose behaviors, flight of ideas, decreased need for sleep and hypersexuality occur primarily in mania and are uncommon in ADHD (NAMI, 2004).

Depression

For diagnosis of depression, four or more of the following symptoms should be present for more than two weeks: a change in appetite, change in sleeping patterns, feelings of worthlessness, inappropriate guilt, lost of pleasure or interest in activities, fatigue, lack of concentration, sadness, disturbed thinking, headaches, stomachaches, and suicidal thoughts or behaviors (SAMHSA, 2003). Major depression is characterized by far more severe symptoms (SAMHSA). If one or more of these indicators are present, parents should seek professional guidance immediately.

Treatment Considerations

Mood Disorders and Suicide in Children

The U.S. Department of Health and Human Services (1999) asserts that mood disorders dramatically increase the risk of suicide. Accordingly, the potential for suicidal behavior is a grave matter and must be taken into account by service providers treating the child. Studies have shown that 90 percent of children who commit suicide have a mental disorder. In a 10- to 15-year study of 73 adolescents diagnosed with major depression, seven percent of the adolescents had committed suicide sometime later. The depressed adolescents were five times more likely to have attempted suicide, compared to adolescents who do not have depression (Weissman et al., as cited by the U.S. Department of Health and Human Services). The relationship between mood disorders and suicide is explained in the *Collection's* "Youth Suicide" section.

Recurrence of Mood Disorders

Additionally, the U.S. Department of Health and Human Services (1999) states that most children with depression will encounter a recurrence. Data indicates that 20 to 40 percent of depressed children relapse within two years, and 70 percent relapse by adulthood (Garber et al., Velez et al., Harrington et al., Fleming et al., Kovacs et al., Lewinsohn et al., Garrison et al., as cited by the U.S. Department of Health and Human Services, 1999). The reasons for relapse are not known, but evidence supports the theory that depression may render some type of psychological imprint which can increase vulnerability to relapse. Depression which co-occurs with conduct disorder appears to worsen this outcome, as does the presence of conflict in the family.

Prognosis of Mood Disorders in Treatment

The U.S. Department of Health and Human Services (1999) states that the prognosis for dysthymia (Klein et al., as cited by the U.S. Department of Health and Human Services) is dim, with most children experiencing depression and other difficulties even after they have apparently recovered. The prognosis for major depressive disorder plus dysthymia is significantly worse than for either condition alone (Kovacs et al., as cited by the U.S. Department of Health and Human Services).

Development of Other Mood Disorders

Research compiled in the Surgeon General's Report (1999) reveals that 20 to 40 percent of children with depression may develop bipolar disorder. Contributing factors predicting this outcome include young age at the time of the first depressive episode, psychotic features in the initial depression, a family history of bipolar illness, and symptoms of hypomania developing during treatment with antidepressant drugs (Garber et al., Strober et al., as cited by the U.S. Department of Health and Human Services).

Selection of Appropriate Interventions

Based on studies reviewed by the AACAP (1998), treatment should be tailored and based on several factors. These include the treatment setting, the chronic nature of the disorder, the classification of the mood disorder (e.g., bipolar, dysthymia and major depressive disorder), the age of the child, and family issues. Based on the formation and context of mood disorders in general, pharmacotherapy is usually not advised without accompanying psychosocial treatments. Moreover, with the high rate of co-morbidity and the potential for serious outcomes, such as suicidal ideation or behavior, a multi-modal treatment approach is preferred. The practice parameter published by

the AACAP recommends children continue therapy for at least six to twelve months to help achieve remission and also to prevent recurrence.

Evidence-based Treatments

Analysis conducted by Burns et al. (1999) indicates that evidence-based treatments have emerged for childhood mood disorders. Furthermore, such treatments are well-established for both psychosocial and pharmacological interventions. This is beneficial in that combining the two offers service providers maximum therapeutic benefits.

Because children who experience the onset of mood disorders at a younger age have a worse prognosis, early intervention is crucial in treatment (Brown, 1996). Early clinical intervention is critical in order to prevent additional functional breakdown, relapse and suicidal behavior (Burns et al., 1999).

Treatment of Major Depressive Disorder

The NIMH (2000) asserts that treatment for depressive disorders in children and adolescents often involves short-term psychotherapy, medication, or a combination, and targeted interventions involving the home or school environment. There are specific treatments for depression that have displayed efficacious results.

Psychosocial Interventions

In an analysis of research of major depressive disorder and children, Burns et al. (1999) found that cognitive behavior therapy was efficacious in rendering positive treatment results. Further findings revealed that interpersonal therapy and systemic family therapy showed promise in the treatment of children with major depressive disorder.

The following treatments for major depressive disorder are outlined in the AACAP (1998) in their Clinical Practice Parameter for Depressive Disorders. This research indicated that a combination of cognitive-behavioral therapy, interpersonal therapy, psychodynamic psychotherapy, and other psychotherapies be utilized to effectively treat the child.

Psychodynamic psychotherapy can assist the child in understanding himself, altering maladaptive patterns of behavior, and interacting more effectively with others. Cognitive behavioral therapy (CBT) is based on the premise that depressed patients have cognitive distortions in how they view themselves, the world, and the future, and that these cognitive distortions contribute to their depression. However, clinical studies found a high rate of relapse, suggesting the need for continuation of treatment. Interpersonal therapy centers on problem areas of grief, as well as personal roles, disputes, role transitions, and personal difficulties. It has been shown to be useful in the acute treatment of adolescents. CBT, interpersonal supportive therapy and systemic family therapy can be effectively provided in both an outpatient and inpatient setting (Burns et al., 1999).

Among the numerous studies reviewed in the Surgeon General's Report (1999), one form of CBT—coping skills—was judged probably efficacious. However, it was not classified as "well-established" because it was not studied by another source outside team of investigators. However, this intervention, based on the "Coping with Depression" course, was developed originally in Oregon for adults by Lewinsohn and colleagues (Lewinsohn, as cited by the U.S. Department of

Health and Human Services). It was later utilized effectively in school-based programs to treat depression in children. The children receiving this treatment when compared with control groups, had lower rates of depression, less self-reported depression, improvement in cognitive activity and increased activity levels.

Pharmacological Treatment

According to the U.S. Department of Health and Human Services (1999), the medications formerly selected for treating major depression in children were the tricyclic antidepressants. However trials in children did not indicate that tricyclic antidepressants were efficacious, unlike trials performed on adults. Additionally, tricyclic antidepressants have a higher risk of toxicity than selective serotonin reuptake inhibitors (SSRIs) (Walsh et al., Kutcher, as cited by the U.S. Department of Health and Human Services). Therefore, tricyclic medications are not the medication of choice for treating major depressive disorder in children. Recent research indicates that young people with depressive disorders may respond more favorably to SSRIs than to tricyclic antidepressants. There is great promise with several types of CBTs for children, along with efficacy being established that supports the utilization of SSRIs.

Antidepressants and the Risk of Suicidal Behavior

The information discussed below is attributed to Gould et al. (2004). There has been considerable debate about the use of antidepressants in treating children and adolescents with depression and whether the use of SSRIs increases the risk of suicidal behaviors. Some researchers assert that increased prescriptions of SSRIs have resulted in decreased suicide rates. However, findings from randomized controlled trials reveal that certain medications are contraindicated for youth under 18 years of age. Manufacturers in the United States are now required to place a "black box" warning label on these medications. Clinicians must weigh the risks of SSRIs against the potential benefits that these drugs may offer their patients. A further description of the use of antidepressants in treating children and adolescents is included in the "Antidepressants and the Risk of Suicidal Behavior" section of the *Collection.*

Treatment of Bipolar Disorder

Psychosocial Treatments

According to analyses conducted by Columbia University (2001), there are no consistent positive trials of psychosocial treatments for children diagnosed with bipolar disorder. However, children with bipolar disorder show benefit from a combination of psychosocial treatments and medication (Kutcher, 2002). Treatment planning should include pharmacologic, social, vocational, academic and interpersonal components. This is due to the fact that the depressive episodes are more frequent occurrences than the manic episodes and also more difficult to treat (Kutcher).

Pharmacological Treatments

According to the NIMH (2000), treatment of children diagnosed with bipolar disorder is modeled after treatment experiences with adults because there is limited research on the safety and efficacy of mood stabilizing medications in youth. The treatment of bipolar disorder in adults involves the use of appropriate doses of mood stabilizing medications, typically lithium or valproate, both of which are found to be effective for controlling mania and preventing recurrences of manic and depressive episodes in adults. Researchers currently are evaluating both pharmacological and psychosocial interventions for bipolar disorder in children and adolescents.

The U.S. Department of Health and Human Services (1999) indicates that recent research conducted on the use of lithium in children has shown this intervention to have promising results in treating children with bipolar disorder. However, children experience the same safety problems with lithium that adults may experience, such as toxicity and impairment of renal and thyroid functioning (Geller & Luby, as cited by the U.S. Department of Health and Human Services). Lithium is not recommended for families unable to keep regular appointments that would ensure monitoring of serum lithium levels and of conflicting effects. Relapse also is high for those patients who discontinue the medication.

The NIMH (2000) emphasizes that use of antidepressants to treat depression in a child with bipolar disorder may induce manic symptoms if it is taken without a mood stabilizer, such as lithium or valproate. Also, psychostimulant medications used in treating co-occurring ADHD in a child with bipolar disorder may exacerbate manic symptoms (Focus Adolescent Services, 2000). The child's psychiatrist should be consulted if this occurs and treatment for bipolar disorder may need to be evaluated.

Treatment of Dsythymic Disorder

According to the AACAP (1998), research supports the use of psychotherapies of varying degrees, including psychoanalysis, psychodynamic, psychotherapy, and cognitive behavioral therapy. Because there is an absence of specific studies on treatment of children with dysthymia, clinicians are advised to utilize treatment modalities appropriate for children diagnosed with major depressive disorder.

Unproven Treatments

The National Depressive and Manic-Depressive Association (2001) recognizes that various alternative treatments may have a positive effect on mood disorders but assert that such treatments ought not to be endorsed. The Association asserts there is no scientific data supporting the use of dietary supplements such as Omega-3, St. John's Wort, or SAM-e. Furthermore, these supplements may have harmful side effects. Accordingly, such supplements and their use must be discussed with the clinician treating the child.

Cultural Considerations

As indicated by Yaylayan (2002), culture can influence how children communicate symptoms of mood disorders. Complaints of nervousness and headaches are more common among Latino and Mediterranean cultures. Furthermore, complaints of weakness or weariness are more prevalent among the Asian culture.

As noted by Kaslow & Thompson (1998), there is a noticeable deficit of cultural information regarding the treatment of mood disorders in children, as most studies conducted were with children who were middle-class and Caucasian. Moreover, little attention was paid to the relevance of the materials and interventions employed in treatment, as well as to the clinician's education about cultural differences.

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American Academy of Child & Adolescent Psychiatry
Virginia Council of AACAP - P.O. Box 71656 - Richmond, VA 23255-1656
804-754-1200
http://www.aacap.org

American Foundation for Suicide Prevention (AFSP)
120 Wall Street, 22nd Floor - New York, NY 10005
888-333-AFSP (2377)
Email: inquiry@afsp.org
http://www.afsp.org

The Bipolar Child
http://bipolarchild.com

Bipolar Kids Home
http://www.geocities.com/EnchantedForest/1068

Center for Effective Collaboration and Practice (CECP)
1000 Thomas Jefferson St., NW, Suite 400 – Washington, DC 20007 888-457-1551
http://cecp.air.org

Child & Adolescent Bipolar Foundation
1187 Wilmette Ave., P.M.B. #331 - Wilmette, IL 60091
http://www.bpkids.org

Depression and Bipolar Support Alliance (DBSA)
formerly the National Depressive and Manic Depressive Association
730 Franklin Street, Suite 501 - Chicago, IL 60610
888-288-1104
http://www.dbsalliance.org

Depression and Related Affective Disorders Association (DRADA)
2330 West Joppa Road, Suite 100 - Lutherville, MD 21093-4605
888-288-1104
http://www.drada.org

Federation of Families for Children's Mental Health
National: 703-684-7110
http://www.ffcmh.org/index.htm
State: Richmond PACCT (Parents and Children Coping Together)
P.O. Box 26691 - Richmond, VA 23261-6691
800-477-0946; 804-559-6833
Email: pacct@infionline.net
http://www.pacct.net

Georgetown University Center for Child and Human Development
http://gucchd.georgetown.edu

Massachusetts General Hospital
Mood and Anxiety Disorders Institute
http://www.mghmadi.org

National Alliance for the Mentally Ill (NAMI)
National: 1-800-950-NAMI (6264)
http://www.nami.org/helpline/depression-child.html
State: Virginia NAMI – P.O. Box 1903 – Richmond, VA 23218
804-225-8264
Email: vaami@aol.com
http://www.namivirginia.org (includes local chapter addresses)

National Foundation for Depressive Illness
P.O. Box 2257 - New York, NY 10016
800-239-1265
http://www.depression.org

National Institute of Mental Health (NIMH)
Office of Communications
6001 Executive Boulevard, Room 8184, MSC 9663 - Bethesda, MD 20892-9663
866-615-6464; TTY 301-443-8431
E-mail: nimhinfo@nih.gov
http://www.nimh.nih.gov

National Mental Health Association (NMHA)
2001 N. Beauregard Street, 12th Floor - Alexandria, VA 22311
800-969-NMHA (6642); TTY: 800-433-5959
http://www.nmha.org

National Suicide Prevention Lifeline
800-273-TALK (8255)
http://www.suicidepreventionlifeline.org

National Youth Network
http://www.nationalyouth.com/mooddisorders.html

Research and Training Center for Children's Mental Health
Portland State University – Portland, OR
http://www.rtc.pdx.edu

S.T.E.P. Up 4 Kids Foundation
866-922-KIDS (5437)
http://www.stepup4bpkids.com

Suicide Hotline
800-SUICIDE (784-2433)

Virginia Commonwealth University Health System
Virginia Treatment Center for Children
Pediatric Mood Disorders Clinic
515 North 10th Street, P.O. Box 980489 - Richmond, VA 23298-0489
804-828-3137
http://www.vcuhealth.org/vtcc/pediatric_mood_disorder.html

Virginia Department of Health
Youth Suicide Prevention
http://www.vahealth.org/civp/preventsuicideva

Virginia Department of Mental Health, Mental Retardation, & Substance Abuse Services
http://www.dmhmrsas.virginia.gov

SCHIZOPHRENIA

Introduction

Schizophrenia is a neurodevelopmental disorder associated with deficits in cognition, affect, and social functioning (American Academy of Child & Adolescent Psychiatry [AACAP], 2001). Psychotic symptoms, along with social and occupational dysfunction which persists for at least six months, must be evident in those children who are diagnosed with the disorder (Murphy et al., 2001). Schizophrenia, which is classified as a psychotic disorder, meaning psychosis—a gross impairment in reality—predominates in the continuum of symptoms (Murphy et al.). The difference in psychosis disorders from other mental disorders is that the psychotic symptoms—delusions, hallucinations, and disorders of thought—are the primary symptoms. Schizophrenia may occur in children over the age of five, but it very rarely occurs before adolescence (National Institute of Mental Health [NIMH], 1999). The psychotic symptoms of schizophrenia— hallucinations and delusions—are unusual prior to adolescence. The average age of onset is 18 in men and 25 in women (NIMH, 2001).

As described by NIMH (2001), children with schizophrenia have extreme difficulty managing daily activities and exhibit the same symptoms as adults. These symptoms include hallucinations, delusions, social withdrawal, lack of emotions, and loss of social skills, as well as a loss of the ability to care for themselves. Furthermore, children with schizophrenia and children with autism or other pervasive developmental disabilities (PDD) may share the same symptomology, thus making it extremely difficult to diagnose.

Diagnosis

NIMH research (2001) reveals that schizophrenia normally originates with intense psychotic episodes in adults; however, the disorder usually emerges more gradually in children. For example, motor and speech or language delays may precede the development of the disorder. Further, children and adults share the same diagnostic criteria, except that symptoms in children appear prior

to age twelve, rather than the late teens or early 20s. Children with schizophrenia often see or hear things that are non-existent, exhibit improper behavior, such as laughing at inappropriate times, and exhibit an absence of body language or eye contact.

Table 1

Facts about Schizophrenia

- Schizophrenia is rare in children, affecting only about 1 in 40,000 compared to 1 in 100 in adults (Nicolson & Rapoport, as cited by NIMH, 2001).
- The average age of onset is 18 in men and 25 in women.
- Schizophrenia ranks among the top 10 causes of disability in developed countries worldwide (Murray, C.J.L. and Lopez, A.D., as cited in NIMH, 2001).
- Children with schizophrenia may also share some symptoms with—and be mistaken for—children who suffer from autism or other pervasive developmental disabilities, which affect about 1 in 500 children.

Source: NIMH, 2001.

Several factors make it difficult to diagnose children with schizophrenia. First, hallucinations are pervasive when the disorder is not adequately treated. In addition, children with other conditions, such as mood disorders may report hallucinations as well when they experience stress (National Alliance for the Mentally Ill [NAMI], 2000). In general, the medical community is reluctant to diagnose a child with schizophrenia due to the stigma associated with the diagnosis and because hallucinations in children may be attributable to other causes (McKenna et al., as cited in Schaeffer, 2002). When symptom development is examined in children who meet the criteria for schizophrenia, a gradual progression is seen from infancy which usually affects several functional areas including social, cognitive, sensory, and motor (Alaghband-Rad et al., Watkins et al., as cited in Schaeffer, 2002).

The *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV)* recognizes five subtypes of schizophrenia. These are outlined in Table 2.

Table 2

Subtypes of Schizophrenia

Paranoid Type—Paranoid delusions, frequent auditory hallucinations, affect not flat

Catatonic Type—Motoric immobility and excessive purposeless motor activity, maintenance of a rigid echolalia

Disorganized Type—Disorganized speech, disorganized behavior, flat or inappropriate affect; not catatonic

Undifferentiated Type (probably most common) —Delusion, hallucinations, disorganized speech, catatonic behavior, negative symptoms but the criteria are not met for the Paranoid, Disorganized, or Catatonic Type

Residual Type—Met criteria for schizophrenia, now resolved, i.e., no hallucinations, no prominent delusions, etc., but residual negative symptoms or attenuated delusions, hallucinations or thought disorder

Source: Murphy et al., 2001.

Schizophrenia is characterized by positive and negative symptoms (Murphy et al., 2001). This is to clarify the impact of the symptoms on diagnosis of subtypes and for treatment (Crow et al., Klosterkotter et al., Maziade et al., as cited by the U.S. Department of Health and Human Services, 1999). Positive symptoms are those characterized by the presence of unusual thoughts, perceptions, and behaviors and appear to reflect an excess or distortion of normal functions (Murphy et al. and the U.S. Department of Health and Human Services). Negative symptoms are those that appear to reflect a diminution or loss of normal functions (U.S. Department of Health and Human Services, 1999).

The diagnosis of schizophrenia, according to *DSM-IV*, requires at least a one-month duration of two or more positive symptoms, unless hallucinations or delusions are especially bizarre, in which case one alone suffices for diagnosis. Negative symptoms are difficult to appraise because they are not as extreme or abnormal and are potentially caused by a variety of other factors (U.S. Department of Health and Human Services). These symptoms are described in Table 3. Children, like adults, may exhibit both the positive and negative symptoms simultaneously (Murphy et al., 2001).

In diagnosing a child with schizophrenia, potential organic conditions for psychotic symptoms need to be ruled out as a possible cause. Such conditions that need to be considered include acute intoxication, delirium, central nervous system lesions, tumors or infections, metabolic disorders, as well as seizure disorders (AACAP, 2001).

Table 3

Positive and Negative Symptoms of Schizophrenia

Positive symptoms
Delusions – Often described by content
Hallucinations – Auditory, visual, tactile and olfactory hallucinations; voices that are commenting
Bizarre behavior – Aggressive/agitated, strange appearance, odd clothing and social behavior, repetitive-stereotyped behavior
Negative symptoms
Affective flattening – Decreased expression of emotion
Algoia – Lack of words, including poverty of speech
Asociality – Few friends, activities, interests, impaired intimacy

Source: Murphy et al., 2001.

Assessment and Other Implications

An individualized approach should be taken in assessing and diagnosing a child who may have schizophrenia (Psychiatry in Practice, 2002). Making a formal diagnosis of schizophrenia is only the first step in the process of clinical evaluation and treatment planning. Multidimensional assessments of psychopathological, psychosocial and personal functioning are also vital elements in acquiring an understanding of the complexity of the illness (Psychiatry in Practice).

Schizophrenia patients have a high risk for suicide. Although the statistics apply to the adult population, the high prevalence rate for suicide should be considered in treating children. Table 4 outlines statistics regarding schizophrenia and suicide.

Table 4

Schizophrenia and Suicide

- Approximately one third of those with schizophrenia will attempt suicide;
- 10 percent will actually complete suicide;
- Those considered high risk include those with a history of depression, those with a recent hospital discharge and those with a chronic course of the disorder; and
- Males under age 30 are especially susceptible.

NOTE: These statistics reflect rates for both children and adults.

Source: Murphy et al., 2001.

Etiology

The etiology for schizophrenia is unknown, although it is generally believed that schizophrenia is a biological disease resulting from some combination of structural brain abnormalities, abnormalities in the prenatal environment, genetic factors, or an imbalance of chemicals in the brain (PSYweb Mental Health Site). It is thought that an inherited chemical imbalance in the brain may need to be present for schizophrenia to develop (Murphy et al., 2001). The most noted theory is that schizophrenia is due to hyperactivity in the brain dopaminergic pathways (Murphy et al.)

It is likely that genetic, behavioral and environmental factors impact the development of schizophrenia (University of Utah Health Sciences Center, 2002). Research has begun to show that neurodevelopmental disruptions may be the result of both genetic and environmental stressors that occur early in development, leading to slight changes in the brain (U.S. Department of Health and Human Services, 1999). Also, environmental factors later in development can either intensify or restructure genetic or neurodevelopmental deficiencies, thus findings point to the combination and interaction between genetic and environmental influences (U.S. Department of Health and Human Services). Unfortunately, researchers have not been able to identify the genes responsible for the disorder (Kendler & Diehl, Levinson et al., 1998 as cited by the U.S. Department of Health and Human Services). Studies have shown schizophrenia spectrum disorders are about twice as prevalent among first-degree relatives of childhood onset patients (U.S. Department of Health and Human Services). Compared to the general population, the risk is five-fold higher for second-degree relatives of schizophrenia patients, ten- to fifteen-fold higher for first-degree family members, as well as dizygotic (fraternal) twins, and forty- to fifty-fold higher for monozygotic (identical) twins or for someone with both parents having schizophrenia (Carpenter, 2004). Environmental factors associated with schizophrenia include maternal malnutrition, infections during critical periods of fetal development, fetal hypoxia, and other birth and obstetric complications (Carpenter).

It has been established that, both structurally and functionally, the brains of persons with schizophrenia are measurably different from persons who do not (Torrey, as cited by the Treatment Advocacy Center, 2002). The initial findings of a NIMH (2001) study of the early onset of

schizophrenia in children showed that children who had psychotic episodes before puberty demonstrated evidence of progressively abnormal brain development. This study revealed that filled cavities in the middle of the brain enlarged abnormally in children between ages 14 and 18, suggesting a shrinking of brain tissue volume. This research is significant because losses in the rear of the brain areas are influenced primarily by environmental factors and research suggests that a non-genetic cause may have played a role in the initial progression of the disorder (NIMH). Moreover, the findings reveal that the final brain loss pattern is consistent with that seen in adults with schizophrenia.

Comorbidity

Until recently, there was little information on the prevalence of comorbid medical illnesses in those with schizophrenia (Jeste et al., as cited by the U.S. Department of Health and Human Services, 1999). Studies have shown that 68 percent of children and adolescents with schizophrenia have some other diagnosis. Depression is the most common comorbid diagnosis; in fact, having a schizophrenic disorder may place children at much greater risk for developing a mood disorder (Alexander, 1996). Moreover, comorbid mood disorders are so prevalent in this patient group that they may be considered a fundamental characteristic of schizophrenic disorders (Alexander). Conduct disorder and/or oppositional defiant disorder are the next most likely comorbid diagnoses.

Comorbid substance abuse disorder may be present in 30 to 50 percent of all children, with the commonly used substances being marijuana (15 to 25 percent) and cocaine (5 to 10 percent) (Continuing Medical Education Online Monograph, 1999). Unfortunately, these comorbidities are associated with poorer medication compliance, higher rehospitalization rates, and poorer treatment responses (Continuing Medical Education Online Monograph).

Additional studies have shown a significant prevalence of obsessive-compulsive disorder (OCD) in schizophrenia (Tibbo, 1999). The prevalence of the two disorders has led to the introduction of a new term 'obsessive-compulsive schizophrenia' (Kim et al., 2004). There is significant overlap in the proposed functional circuits of OCD and schizophrenia, which may lead to co-expression of symptoms and have implications in treatment (Tibbo). Recent research has shown that there are brain abnormalities present in OCD, as well as in the first episode of schizophrenia (Kim et al.). There are some pathophysiological similarities, such as deficit of the frontostriatal circuit, but more structural abnormalities with schizophrenia (Kim et al.). There have been only a few studies directly comparing the similarities and disparities between the psychophysiology of schizophrenia and OCD (Kim et al.).

Treatment Considerations

In treating children with schizophrenia, the goal of treatment is to enable the child to resume a lifestyle that is as normal as possible (The Royal College of Psychiatrists, 1999). Recently, the treatment of schizophrenia has advanced considerably, allowing the child to have an improved quality of life.

In order to adequately treat individuals with schizophrenia, service providers must be able to recognize the various phases of the disorder. These phases include:

- **Prodrome**—Prior to developing overt psychotic symptoms, most children will experience some period of deteriorating function, which may include social isolation, idiosyncratic or bizarre preoccupations, unusual behaviors, academic problems and/or deteriorating self-care

skills. However, while the presence of these problems should raise concerns, psychotic symptoms must be present before a diagnosis of schizophrenia can be made.

- **Acute Phase**—This is the phase in which children often present, and is dominated by positive psychotic symptoms (i.e., hallucinations, delusions, formal thought disorder, bizarre psychotic behavior) and functional deterioration.
- **Recovery Phase**—This follows the acute phase, as the active psychosis begins to remit. This phase often has some ongoing psychotic symptoms, and may also be associated with confusion, disorganization and dsyphoria.
- **Residual Phase**—During this phase, positive psychotic symptoms are minimal. However, children will still generally have ongoing problems with "negative symptoms", i.e., social withdrawal, apathy, and/or flat affect.
- **Chronic Impairment**—Some children remain chronically impaired by persistent symptoms that have not responded adequately to treatment.

Source: AACAP, 2001.

Standard treatment includes pharmacotherapy with antipsychotic medication, typically combined with a variety of psychosocial interventions (U.S. Department of Health and Human Services, 1999). Adequate treatment requires the combination of psychopharmacologic measures with psychosocial ones. Treatment protocols may vary depending on the phase of illness (AACAP, 2001). Treatment recommendations are based on findings with adults because there is a lack of treatment research for children and adolescents with schizophrenia. However, study findings emphasize the need for coordinating treatment by an interdisciplinary treatment team to ensure continuity of services (U.S. Department of Health and Human Services).

The specific treatment for schizophrenia in children will be determined by the physician and based on a number of circumstances, such as the child's age, overall health, and medical history. Other factors include extent of the condition, type of schizophrenia, tolerance for specific medications or therapies, expectations for the course of the condition, and preference (University of Virginia Health System, 2004).

Evidence-based Treatments

The Agency for Healthcare Research and Quality and NIMH co-sponsored the Schizophrenia Patient Outcomes Research Team (PORT) which has offered 30 treatment recommendations. Recommendations were selected on topics ranging from antipsychotic medications and the treatment of depression and other co-occurring symptoms to consumer and family education and support, vocational rehabilitation, and assertive community treatment (NAMI, 2000).

The PORT treatment recommendations are based on substantial scientific evidence and a comprehensive review of the treatment outcomes literature (Lehman et al., 1998 as cited by the U.S. Department of Health and Human Services, 1999). Therefore, there are more recommendations made about pharmacological treatments than psychosocial treatments. The researchers contend that this reflects only that less is known about psychosocial treatments, but that future research may shed light on other components of care. (Lehman et al.). The Schizophrenia PORT also found potentially important treatment domains for which the scientific evidence is inadequate to develop specific treatment recommendations. The PORT Treatment recommendations, as edited in the Surgeon General's Report (1999), are outlined in Table 5.

Table 5

Selected Treatments from Schizophrenia PORT Recommendations

No. 1. Antipsychotic medications, other than clozapine, should be used as the first-line treatment to reduce psychotic symptoms for persons experiencing an acute symptom episode of schizophrenia.
No. 2. The dosage of antipsychotic medication for an acute symptom episode should be in the range of 300–1,000 chlorpromazine (CPZ) equivalents per day for a minimum of 6 weeks. Reasons for dosages outside this range should be justified. The minimum effective dose should be used.
No. 8. Persons who experience acute symptom relief with an antipsychotic medication should continue to receive this medication for at least 1 year subsequent to symptom stabilization to reduce the risk of relapse or worsening of positive symptoms.
No. 9. The maintenance dosage of antipsychotic medication should be in the range of 300–600 CPZ equivalents (oral or depot) per day.
No. 12. Depot antipsychotic maintenance therapy should be strongly considered for persons who have difficulty complying with oral medication or who prefer the depot regimen.
No. 23. Individual and group therapies employing well-specified combinations of support, education, and behavioral and cognitive skills training approaches designed to address the specific deficits of persons with schizophrenia should be offered over time to improve functioning and enhance other target problems, such as medication noncompliance.
No. 24. Patients who have ongoing contact with their families should be offered a family psychosocial intervention that spans at least 9 months and that provides a combination of education about the illness, family support, crisis intervention, and problem-solving skills training. Such interventions should also be offered to nonfamily members.
No. 27. Selected persons with schizophrenia should be offered vocational services.*
No. 29. Systems of care serving persons with schizophrenia who are high users should include assertive case management (ACM) and assertive community treatment (ACT) programs.
** Edited by the U.S. Department of Health and Human Services, 1999*

Source: Lehman et al., 1998a, 1998b, as cited and edited by the U.S. Department of Health and Human Services.

Pharmacological Treatment

Pharmacotherapy is the most extensively evaluated intervention for schizophrenia because it plays such a necessary role in treating schizophrenia. Pharmacotherapy is utilized to control the symptoms of schizophrenia which may ultimately allow the child the possibility to live a normal life. The various pharmacotherapy agents will be outlined in the following paragraphs.

Both children and adults have benefited from the use of antipsychotic medications in that these drugs reduce hallucinations and delusions (NIMH, 2001). Studies have indicated that antipsychotics tend to have more success in treating the positive symptoms of the disorder and less so with negative symptoms (Royal College of Psychiatry, 1999). Research has also been conducted

on the newer "atypical" antipsychotics. These studies have shown that the newer atypicals are successful in improving incentive and clarity (AACAP, 2001). Furthermore, these drugs also have shown a lower prevalence of side effects that produce movement disorders. They are at least as effective for treating positive symptoms and may be more helpful for negative symptoms (AACAP). When a schizophrenic patient is being treated for aggression, antipsychotic drugs are regarded to be the best treatment option (Carpenter, 2004).

Clozapine is one of these atypical drugs which has documented efficacy for treatment of schizophrenia in adults, but is usually not considered a "first-line" agent in children due to its considerable potential for adverse effects (AACAP, 2001). Such side effects include excess weight gain (NIMH, 2001) and seizures (AACAP).

These agents have promise for treating children where the older school of antipsychotics medications may not be effective (Ballus, as cited by the U.S. Department of Health and Human Services, 1999). Although the newer, more broadly effective medications have increased hopes for improvement, they also have resulted in greater treatment complexity for patients and providers (U.S. Department of Health and Human Services).

Evidence indicates that the newer antipsychotics are more clinically beneficial than the older ones, due to the combination of their effective treatment of positive (and perhaps negative) symptoms, their treatment of comorbid disorder such as anxiety and depression, and their more favorable side effect profile (Lieberman, as cited by the U.S. Department of Health and Human Services, 1999). According to Dixon, as cited by the U.S. Department of Health and Human Services, effectiveness in real-world settings may be lower than efficacy in clinical trials, but this may be attributed to other external factors such as patient heterogeneity, prescribing practices, and issues of noncompliance.

Using Antipsychotics in Children

Parameters set forth by the AACAP (2001) recommend that the following occur in utilization of antipsychotic agents in treating children with schizophrenia:

- Adequate informed consent from the parent/youth (depending on the legal age requirements and/or legal status of the patient)
- Documentation of target symptoms
- Documentation of any required baseline and follow-up laboratory monitoring, dependent on the agent being used
- Documentation of treatment response
- Documentation of suspected side effects, including monitoring for known side effects (e.g., extrapyramidal side effects, weight gain, agranulocytosis and seizures with clozapine)
- Adequate therapeutic trials, which generally require the use of sufficient dosages over 4–6 weeks
- Long-term monitoring to reassess dosage needs, dependent on the stage of illness. Higher dosages may be required during the acute phases, with smaller dosages during residual phases. The decision to lower dosages (which minimizes the side-effect risks), or undergo medication-free trials, must be balanced by the potential increased risk for

relapse. In general, first-episode patients should receive some maintenance psychopharmacological treatment for one to two years after the initial episode, given the risk for relapse

Other Pharmacological Agents

The AACAP (2001) also maintains that some children may benefit from the use of adjunctive agents, including antiparkinsonian agents, mood stabilizers, antidepressants or benzodiazepines. These medications are used either to attend to side effects of the antipsychotic agent or to alleviate associated symptoms. Although these medications are commonly used, there are no studies that address the use of adjunctive agents in children and adolescents.

Psychosocial Treatments

Psychosocial treatments are vital complements to medication for individuals with schizophrenia in that they assist with increasing functioning and recovery (U.S. Department of Health and Human Services, 1999). The PORT treatment recommendations, as cited in Table 5, stipulate that patients should receive pharmacotherapy in conjunction with supportive psychotherapy, family treatment, psychosocial rehabilitation and skill development, and vocational rehabilitation (Lehman & Steinwachs, 1998, as cited by the U.S. Department of Health and Human Services, 1999). This is particularly evident in periods of remission because psychosocial treatments continue to help improve quality of life. Psychosocial treatments assume even greater importance for children and adolescents who do not respond to, cannot endure, or do not adhere to medications (U.S. Department of Health and Human Services).

Various psychosocial interventions are recommended, in accordance to the practice parameters set forth by the AACAP (2001):

1. **Psychoeducational** therapy for the child, including ongoing education about the illness, treatment options, social skills training, relapse prevention, basic life skills training and problem solving skills strategies.

2. **Psychoeducational** therapy for the family to increase the understanding of the illness, treatment options, prognosis and developing strategies to cope with the symptoms of the patient.

Several professionally operated family intervention programs have been developed to help family members address issues associated with severe mental disorders. Such programs have also been developed to assist families in understanding schizophrenia (Hogarty et al., 1987; Cazzullo et al., 1989; Mari & Streiner, 1994; McFarlane, 1997, as cited by the U.S. Department of Health and Human Services, 1999). Studies have been conducted to ascertain the effectiveness of programs that educate families about schizophrenia, provide support and crisis intervention, and offer training in effective problem solving and communication (U.S. Department of Health and Human Services, 1999). These interventions have strong evidence demonstrating their value in preventing or delaying symptom relapse and appear to improve the patient's overall functioning and family well-being (U.S. Department of Health and Human Services).

Other Treatments

Specialized educational programs and/or vocational training programs may be indicated for some children to address the cognitive and functional deficits associated with the illness (AACAP, 2001).

Some children will likely require more intensive community support services. There are some cases where the severity of symptoms necessitate long-term placement in a residential facility (AACAP, 2001). However, as in treatment for all disorders in children, the least restrictive setting option should always be utilized as appropriate.

In addition to those treatments provided specifically for schizophrenia, other treatments may be needed to address comorbid conditions or other treatment implications, such as substance abuse, depression and thoughts of suicide (AACAP, 2001).

Service Settings and Other Considerations

The following two treatment considerations and setting discussions are set forth by Weiden et al., 1999:

Assertive community treatment (ACT)—The ACT multidisciplinary team enables children to stay at home and in the community. ACT can help with many things like medication, money management, living arrangements, problem solving, shopping, jobs, and school. ACT is a long-term program that can continue to follow the person through all phases of the illness and is especially beneficial for patients who have a severe and unstable course of illness.

Rehabilitation—Different types of rehabilitation programs may help patients during the long-term recovery and maintenance phase of the illness. Rehabilitation may be especially important for those who need to improve their job skills, want to work, have worked in the past, and have few remaining symptoms.

A number of residential options have been developed for patients with schizophrenia. These treatment considerations and setting discussions are discussed by the Expert Consensus Treatment Guidelines for Schizophrenia: A Guide for Patients and Families (1999).

Brief respite/crisis home—an intensive residential program with on-site nursing/clinical staff that provides 24-hour supervision, structure, and treatment. This level of care can often help prevent hospitalization for children who are relapsing. Brief respite/crisis homes can be a good choice for children during acute episodes and sometimes during the stabilization phase after an acute episode.

Transitional group home—an intensive, structured program that often includes in-house daily training in living skills and 24-hour awake coverage by paraprofessionals. Treatment may be provided in-house or the resident may attend a treatment or rehabilitation program during the day. Transitional homes can help children while they are stabilizing after an acute episode and can also be helpful during an acute relapse if a brief respite/crisis home is not available.

Foster homes—a supportive group living situation owned and operated by laypeople. Foster homes are recommended for children during long-term recovery and maintenance, especially if other options, such as living with the family, are not available.

Unproven Treatments

Psychodynamically-oriented therapies are considered to be potentially harmful; therefore, their use is not recommended (U.S. Department of Health and Human Services, 1999).

The AACAP (2001) reports electroconvulsive therapy being used for children with treatment of severe cases of schizophrenia. However, electroconvulsive therapy does not appear to be as effective for schizophrenia as it is for mood disorders. The use of electroconvulsive therapy should be seen as a last resort and reserved for cases where several trials of medication therapy have failed.

Cultural Considerations

Although the incidence rates for schizophrenia are very similar across cultures, clinicians must be made aware that what is considered delusional in one culture may be accepted as normal in another (Lu et al., as cited by the U.S. Department of Health and Human Services, 1999). For certain cultures certain delusions and hallucination, i.e., "voices" of religious figures are part of a standard or normal religious practice. Therefore, classifying an experience as a schizophrenic episode requires the clinician to be both discerning and aware of cultural variations (U.S. Department of Health and Human Services, 1999).

Clinicians can misinterpret and misdiagnose patients who possess behavior that may vary from the culture of the diagnosing service provider. For example, clinicians may misinterpret a patient's avoidance of direct eye contact as a symptom of a mental disorder or, conversely, as a normal emotional reserve explained by cultural differences (U.S. Department of Health and Human Services, 1999). African-American patients are more likely than Caucasian patients to be diagnosed with severe psychotic disorders in clinical settings (Snowden et al., as cited by the U.S. Department of Health and Human Services).

Both service providers and researchers have acknowledged the challenge in addressing cultural differences in treating mental illness (U.S. Department of Health and Human Services, 1999). In addition, there is growing awareness that ethnicity and culture influence patients' response to medications. Thus a new field has emerged, the field of "ethnopharmacology." Due to racial and ethnic variation in pharmacokinetics, Asians and Hispanic children with schizophrenia may require lower doses of antipsychotics than Caucasians to achieve the same blood levels. As cited by the U.S. Department of Health and Human Services, "... medication differences are the result of underlying biological mechanisms of mental illness related to ethnicity, culture, and gender variations." Although knowledge in this area is scant, cultural patterns should be considered in prescription practices.

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Organizations

American Psychiatric Association (APA)
http://www.psych.org/public_info/schizo.cfm

MentalWellness.com
http://www.mentalwellness.com

National Alliance for the Mentally Ill (NAMI)
Colonial Place Three - 2107 Wilson Blvd., Suite 300 - Arlington, VA 2201-3042
800-950-NAMI (6264) or 703-524-7600
http://www.nami.org

National Alliance for Research on Schizophrenia and Depression (NARSAD)
60 Cutter Mill Road, Suite 404 - Great Neck, NY 11021
800-829-8289 and 516-829-0091
http://www.narsad.org

National Institute of Mental Health (NIMH)
Office of Communication and Public Liaison
Information Resources and Inquiries Branch
6001 Executive Boulevard, Room 8184, MSC 9663 - Bethesda, MD 20892-9663
301-443-4513 or TTY 301-443-8431
E-mail: nimhinfo@nih.gov
http://www.nimh.nih.gov
(Direct link to Schizophrenia section:
http://www.nimh.nih.gov/healthinformation/schizophreniamenu.cfm)

National Mental Health Association (NMHA)
1021 Prince Street - Alexandria, VA 22314-2971
800-969-6942 or 703-684-7722
http://www.nmha.org

National Schizophrenia Foundation
403 Seymour Avenue, Suite 202 - Lansing, Michigan 48933
1-800-482-9534
http://www.NSFoundation.org

Open the Doors
http://www.OpentheDoors.com

Schizophrenia: A Handbook for Families
http://www.mentalhealth.com/book/p40-sc01.html

Schizophrenics Anonymous (SA)
403 Seymour Avenue, Suite 202 - Lansing, Michigan 48933
800-482-9534
Email: inquiries@nsfoundation.org
http://www.nsfoundation.org/sa/index.html

The Schizophrenia Home Page
http://www.schizophrenia.com

Treatment Advocacy Center (TAC)
200 N. Glebe Road, Suite 730 - Arlington, VA 22203
703-294-6001/6002
Email: info@psychlaws.org
http://www.psychlaws.org

Understanding Schizophrenia: A Guide for People with Schizophrenia and Their Families
http://www.narsad.org/dc/patients_families

University of Virginia Health System: UVa Pediatric Health Topics A to Z, Adolescent Medicine
http://www.healthsystem.virginia.edu/uvahealth/peds_adolescent/schiz.cfm

Co-occurrence of Substance Abuse and Mental Illness

Introduction

Children and adolescents may be involved with substances in a variety of ways. Experimentation with substances during adolescence is not uncommon. However, studies have shown that children who experiment with substances at a young age are more likely to use other drugs later in life (Focus Adolescent Services, 2000). Some adolescents' exposure may be limited to experimentation, but others will develop a dependency, even moving on to more dangerous drugs, and causing significant harm to themselves and possibly others. Children and adolescents who become chronic users often develop psychological or social problems. Studies of males entering the juvenile justice system confirm the link between substance use and crime (Gehshan, 2001). Complicating matters even further is the fact that many adolescents who abuse substances also have a diagnosable mental health disorder.

Co-occurrence of Substance Abuse and Mental Illness

According to epidemiologic data, nine percent of adolescent females and 20 percent of adolescent males meet the adult diagnostic criteria for an alcohol use disorder (Cohen et al., 1993). Among adolescents and young adults with a substance abuse disorder, 41 to 65 percent also have a mental health disorder (U.S. Department of Health and Human Services, 1999). Overall, the lifetime co-occurrence of mental and addictive disorders has been estimated at approximately 50 percent (Kessler et al., 1996).

While the co-occurrence of substance abuse and mental health disorders often exacerbates personal difficulties, research indicates that individuals with a dual diagnosis are less likely to seek treatment. Findings from the Epidemiological Catchment Area (ECA) study indicated that only 37.4 percent of the individuals identified with co-occurring substance abuse and mental health disorders in Virginia sought treatment in inpatient or ambulatory service sectors during a one-year period (Bourdon et al., 1994).

As noted by the President's New Freedom Commission on Mental Health, if either the substance abuse or co-occurring disorder remains untreated, both usually worsen (2003). Additional complications often arise, including the risk for other medical problems, unemployment, homelessness, incarceration, suicide, and separation from families and friends (New Freedom Commission on Mental Health).

This co-morbidity and lack of adequate treatment have significant clinical implications. First of all, these children and adolescents are particularly vulnerable to relapses and rehospitalizations (Mueser et al., 1997). Studies have found that the most common cause of psychiatric relapse today is the use of alcohol, marijuana, and cocaine, and the most common cause of relapse to substance use is an untreated psychiatric disorder (Substance Abuse and Mental Health Services Administration [SAMHSA], 1997). In addition, individuals with co-occurring disorders exhibit greater depression and suicidality, violence, and noncompliance with medications and other treatments (Mueser et al.). They also face greater difficulties with social problems, such as housing instability and homelessness, increased family burden, and increased vulnerability to HIV infection (Mueser, et al.). Thus, in order to ensure more positive outcomes, it is important that service providers recognize that adolescents with a dual diagnosis have special needs and may require a greater number of interventions and community resources.

Etiology

The National Comorbidity Survey is a large-scale government project designed to increase knowledge about the prevalence and characteristics of co-occurring disorders in the United States. According to Kessler et al. (1996), data from this study indicates that, in nearly 90 percent of individuals with a dual diagnosis of mental illness and substance use disorder, the mental disorder develops before the substance use disorder. In particular, children will often receive the diagnosis of mental illness in the pre-teen or early teen years, with the median falling around age 11. The substance use disorder has been found to develop a few years later, between the ages of 17 and 21.

It is important to note that a mental illness diagnosis does not ensure that a child will abuse alcohol or other drugs. However, the high statistical coincidence occurring in these two conditions is significant. This information has strong implications for early intervention efforts, as it demonstrates that a window of opportunity may exist for detecting a co-occurring disorder. Early identification and intervention with children and adolescents who have developed mental disorders may preclude the potential of later development of a substance-related disorder if prompt and effective treatment is provided (SAMHSA, 1997).

Certain mental health diagnoses have been associated with an increased risk of later substance abuse. Children with a diagnosis of attention deficit hyperactivity disorder (ADHD) and learning disorders, in combination with depression and anxiety disorders, have a high risk of having a co-occurring substance use disorder. In response to these findings, experts have recommended that

children and adolescents with these disorders be assessed carefully for substance-related disorders on a periodic basis (Belfer, 1993). Table 1 presents the psychiatric disorders commonly found among children and adolescents diagnosed with substance abuse disorders.

Table 1

Psychiatric Disorders Commonly Found Among Children and Adolescents Diagnosed with Substance Use Disorders

Behavior Disorders
- Conduct Disorder
- Oppositional Defiant Disorder
- Attention Deficit/Hyperactivity Disorder

Mood Disorders
- Major Depressive Episodes
- Dysthymic Disorder
- Bipolar Disorder

Anxiety Disorders
- Generalized Anxiety Disorder
- Social Phobia
- Posttraumatic Stress Disorder

Eating Disorders (Bulimia Nervosa)

Source: Bukstein, 1998.

Research has not conclusively established the relationship between substance abuse and mental health disorders. Table 2 describes four possible reasons for the connection.

Due to scientific advances and study, a core concept has evolved, suggesting that addiction is a brain disease that develops over time as a result of the initially voluntary behavior of using drugs. Long-term substance use causes profound changes in brain structure and function that result in uncontrollable compulsive drug or alcohol craving, seeking, and using (Leshner, 2001). Thus, addiction must be viewed as a multifaceted disease.

Studies have also linked a gene to alcohol addiction. The CREB gene, so-named because it processes a protein called CREB, is involved in the process of alcohol tolerance, dependence, and withdrawal symptoms (Davis, 2004). Studies have linked this gene with anxiety-like behaviors and preference to alcohol.

There is also data that supports the idea that some persons who abuse alcohol especially have different brain chemistries that predispose them to drinking (Personal Communication with Dr. Anita Everett, Inspector General for the Commonwealth of Virginia, July 2002).

According to Leshner (2001), over time the person abusing substances loses substantial control over his or her voluntary behavior. For many people these behaviors are truly uncontrollable, just like the behavioral demonstration of other brain diseases. Thus, once one is addicted, the nature of the illness, as well as treatment approaches, is not that different from other brain diseases.

Table 2

Theories behind the Relationship Between Substance Abuse and Mental Health Disorders

1. **One disorder directly causes the other.**
   For example, the repeated use of cocaine may induce panic attacks, psychotic episodes, and depression that would not have occurred otherwise (Ciraulo & Shader, 1991.
2. **The substance abuse is an attempt at self-medication.**
   This explanation appears to be the most prevalent. It suggests that the mental disorder indirectly leads to the substance abuse. Under this hypothesis, an individual attempts to diminish psychological distress or improve social functioning by using substances (Substance Abuse and Mental Health Services Administration, 1997). The self-medication hypothesis is supported by the fact that in the vast majority of cases, the mental disorder develops before the substance abuse begins. However, a related view is that the substance use is the result of psychological difficulties such as impulsivity or impaired judgment (Substance Abuse and Mental Health Services Administration, 1999).
3. **The two disorders develop independently, but have a significant impact on each other.**
   This explanation is best demonstrated by those youth who develop substance abuse early, and then later independently develop a mental health disorder such as schizophrenia. While the substance abuse may be a stressor or may further decrease the youth's coping abilities, it cannot be considered a direct cause of the schizophrenia (Substance Abuse and Mental Health Services Administration, 1997).
4. **The development of both disorders is related to the existence of an independent external factor.**
   A strong example of this is a youth who has suffered from severe childhood trauma, and consequently exhibits multiple psychological, emotional, and social difficulties (Substance Abuse and Mental Health Services Administration, 1997).

Source: Commission on Youth Graphic of Citations as noted, 2002.

While the relationship between mental illness and substance abuse has yet to be fully established, there are certain risk factors that increase the possibility of a child being dually-diagnosed. The first, and possibly most significant, of these elements is family influence. This may include various risk factors such as genetic predispositions, parental psychopathology, parental substance abuse, and the availability of substances (Substance Abuse and Mental Health Services Administration, 1999). Parent use, troubled family relationships, and emotional or behavioral problems have been reported to be most predictive of escalation to more serious abuse of alcohol or drugs (SAMHSA). It is important to note that addiction involves inseparable biological and behavioral components (Leshner, 2001).

This vulnerability to substance use may then be enhanced by the child's social development and peer influences. A child who is highly susceptible to peer pressure and negative influences is at a greater risk of developing a substance abuse problem (Leshner, 2001). These risk factors may differ in significance during different phases of development. Parental and peer influences are often critical in early phases of substance use, while the influence of peers may increase as the child gets older (SAMHSA, 1999). Recent studies have also revealed an association between higher levels of substance use and an adolescent's pubertal stage (not necessarily chronological age) because

adolescents entering puberty sooner enter the risk period at an earlier point than late maturers (Patton, et al., 2005).

Another major risk factor for adolescent substance abuse is the presence of childhood conduct problems (Brook et al., as cited by Kamon, Budney, & Stanger, 2005). Substance abuse and conduct problems share important risk factors, including family conflict, poor parental monitoring, parental substance use, academic problems, and association with deviant peers (Anderson and Henry, Brook et al., as cited by Kamon, Budney, & Stanger, 2005). More than half of adolescents with substance abuse problems also experience conduct problems; such problems make treatment for substance abuse particularly challenging (Kaminer et al., as cited by Kamon, Budney, & Stanger, 2005).

Assessment

A large number of adolescents experiment with alcohol and other drugs before becoming adults (Bukstein, 1998). However, in order to receive a diagnosis of substance use disorder, these youth must demonstrate significant levels of impairment in their daily lives, such as poor social relationships, declining academic performance, or chronic substance-related absences, suspensions, or expulsions from school (Bukstein).

When conducting an assessment of children and adolescents suspected of co-occurring disorders, the primary goal is to determine whether the use of substances exists and whether it fits the diagnostic criteria within the *DSM-IV* for substance use disorders (Bukstein, 1998). This determination should be based on a comprehensive developmental, social, and medical history. Evaluators should obtain the necessary information from a variety of sources, including the youth, parents, family members, school personnel, previous treatment records, and perhaps other involved agencies (SAMHSA, 1997).

Once the clinician has established that the child is using substances, they must then determine the nature of the use pattern. Under the *DSM-IV*, substance use disorders generally follow one of two tracks. That is: the first diagnosis, substance abuse, is ascribed to a child when their repeated use of alcohol or other drugs leads to physical, emotional, or social problems, but does not include compulsive use or addiction. Further, when an individual persists in use of alcohol or other drugs despite symptoms of tolerance and withdrawal or attempts to control the use, substance dependence is generally diagnosed. Information regarding patterns of use, including age of onset, progression of use for specific substances, frequency, and variability of use, and the types of substances used, is necessary in making this diagnosis (Bukstein, 1998).

Because the most common feature of substance use disorders in adolescents is impairment in psychosocial and academic functioning, the evaluator must determine whether the difficulties the youth displays are attributable to the substance use, are the result of preexisting or current problems or are a combination of both (Bukstein, 1998). During a preliminary evaluation, clinicians should routinely screen for any co-occurring mental disorders. In addition, the assessment should also attempt to bring out any social and environmental factors, such as family or academic problems, that may be affecting the child or adolescent's functioning.

Recognition of co-occurring substance-related and mental disorders is often difficult, and clinicians will have to keep in mind several issues when conducting an evaluation. First, youths often display denial, distortion, and minimization when discussing substance use; therefore the details provided may not be reliable. Furthermore, in cases of co-occurring mental illness, the reasons for the distressing symptoms and behaviors may not be fully understood by the child and family, and therefore the information provided during the evaluation may not be particularly revealing (Bukstein, 1998). Moreover, the reports of substance use may be distorted by the cognitive and emotional aspects of any underlying mental illness, further decreasing the validity of any self-reports (Mueser et al., 1997).

Clinicians must also consider the fact that dually-diagnosed patients often present different symptoms than substance abusers who do not have mental illness (Mueser et al., 1997). They may use lower amounts of alcohol and/or drugs and experience different consequences from use. Furthermore, some research shows that the dually-diagnosed are less likely to develop dependence and tend to report less subjective distress resulting from their use (Mueser et al.). Based on these differences, standard instruments may not identify the substance use disorder in these individuals, and the clinician may have to rely primarily on clinical interviews and patient histories.

Best Practices in Treatment

There are very few programs specifically designed to treat co-occurring disorders, and those that do exist are relatively new. Consequently, most methods have not been objectively evaluated with children and adolescents for effectiveness (SAMHSA, 1997). The studies that have been done have failed to demonstrate the superiority of any one treatment approach over another, and instead have shown only that some treatment is better than no treatment (Bukstein, 1998). However, researchers have identified certain treatment characteristics that are associated with more successful outcomes in dually-diagnosed children and adolescents (Bukstein). They include:

- Treatment of sufficient duration, intensiveness, and comprehensiveness to address the chronic nature of the disorders
- The presence of after-care or follow-up treatment
- Sensitivity to cultural, racial, and socioeconomic factors
- Family involvement
- Collaboration among service providers and agencies
- Promotion of prosocial activities and drug-free lifestyle
- Involvement in self-help groups such as Alcoholics Anonymous and Narcotics Anonymous

The SAMHSA Best Prevention and Treatment Practices Expert Panel has also recommended that the following principles be used to form the basis of treatment for children and adolescents with a dual diagnosis (SAMHSA, 1997):

- *Prevention* – Early detection, education, and provision of services to high risk populations (i.e., children with learning disorders, persons experiencing trauma, including child or domestic abuse, persons with predisposing family conditions, etc.).

- *Education* – Both mental health and substance abuse treatment programs should educate clients regarding the risks and symptoms of dual disorders.
- *Cross-training* – Service providers should be trained to evaluate and treat mental illness and substance abuse concurrently.
- *Evaluation* – All elements of the treatment program should be thoroughly evaluated on a periodic basis.

Preliminary studies also support the use of integrated mental health and substance abuse treatment programs (Mueser et al., 1997). Under the integrated treatment approach, both the mental health and the substance abuse treatments are provided simultaneously within the same treatment plan, rather than being conducted in a consecutive or parallel manner (Mueser, et al.). Integrated treatment is typically provided by same team, person, or organization, and most models include a variety of services within the treatment plan, such as case management, group interventions (persuasion groups, social skills training), behavioral strategies, and family/social intervention (Mueser, et al.). SAMHSA is informing health professionals to expect patients to present with simultaneous substance abuse and mental health disorders (Wachter, 2005). SAMHSA's Treatment Improvement Protocol (TIP) 42: Substance Abuse Treatment for Persons with Co-occurring Disorder recommends the coordination of substance abuse and mental health interventions (Wachter, 2005). Although the effects of integrated mental health and substance abuse disorder treatment require additional study, optimal treatment involves an integration of treatment modalities rather than merely concurrent or consecutive treatment with specific modalities for either substance abuse disorder or psychiatric disorders. (Riggs and Davies, as cited by The Journal of the American Academy of Child and Adolescent Psychiatry [AACAP], 2005).

Research has found that the integrated approach offers several advantages. Participants are more likely to maintain a connection with the program, which has been found to result in decreases in rehospitalization, increased sobriety, and decreased psychiatric symptoms (Hellerstein et al., 1995). In addition, participants have been found to demonstrate modest improvements in the areas of immediate and extended social relationships, self-reported satisfaction with family relationships, and psychiatric symptoms (Jerrell & Ridgely, 1995).

It is also important to note that different approaches to integrated treatment have been found to result in similar rates of improvement (Mueser et al., 1997). If supported, this finding could have important policy implications, because the choice of approach could then be based on the ease of implementation and the cost of the intervention method (Mueser, et al.).

The research supporting integrated treatment programs can only be generalized, however, due to the existence of certain limitations (Mueser et al., 1997). Most of the studies used small sample sizes, lacked an experimental design, and failed to employ standardized instruments to assess diagnosis of substance abuse (Mueser et al.). Furthermore, most incorporated relatively brief follow-up periods (typically 18 months or less). This short-term design may downplay the effectiveness of the approach, as research shows that the benefits of this form of treatment become more visible as time progresses (Durrell et. al., 1993).

Treatment

Children and adolescents with a dual diagnosis should be treated in the least restrictive environment possible. Consequently, several treatment settings are necessary to ensure an adequate continuum of care. Table 3 describes the most typical treatment settings.

Table 3

Most Typical Treatment Settings For Children and Adolescents

- ***Inpatient treatment*** – This is generally limited to children and adolescents with three types of difficulties: severe psychiatric disorders (such as acute psychosis and/or dangerous behaviors), a history of treatment failure in less restrictive environments, and a risk of withdrawal. Inpatient services include alcohol and drug detoxification programs, which typically accept active and often unmotivated users for a period of 3 to 7 days and provide medication to alleviate withdrawal (Sciacca, 1991). Completion of detoxification is frequently a criterion for admission to other forms of treatment. However, patients with dual diagnosis who have severe mental illness are often excluded from detoxification programs due to the lack of adequate staffing and staff training.

- ***Residential treatment*** – This includes group homes as well as therapeutic communities. The environment is typically less restrictive than hospitalization, but still provides the youth with intensive services and support.

- ***Partial hospitalization or day treatment*** – These programs allow the youth to remain in the community while receiving intensive treatment. They are often used as a transition for youth from a more restrictive setting back into the community.

- ***Outpatient treatment*** – This form of treatment is most appropriate for youth whose history, clinical status, and environment allow for less intensive level of care. Treatment is focused on the primary problem, and commonly uses a single method, such as individual or family therapy, or a limited combination of the two.

- ***Community treatment*** – This may include school-based counseling and self-help groups, as well as prosocial organizations and recreational opportunities that are made available to the youth. It may be used either in conjunction with outpatient treatment, or as a transition from long-term treatment in more restrictive settings. The basic purpose of these programs is to facilitate transition to a drug-free lifestyle.

Source: Bukstein, 1998.

Table 4 discusses the various factors that influence the choice of treatment setting for children and adolescents with dual diagnoses.

Table 4

Factors Influencing Choice of Treatment Setting For Children and Adolescents

- **Motivation and willingness of adolescent and family to cooperate with treatment**
  Treatment, however, does not need to be voluntary to be effective, as sanctions or enticements from the family, the justice system, or other sources may increase treatment entry and retention rates (NIDA, 1999).
- **Adolescent's need for structure or limit-setting that cannot be provided in less restrictive environment**
- **Need to provide a safe environment for the youth**
- **Ability of the adolescent to care for him/herself**
- **Existence of complicating medical or psychiatric conditions**
- **Availability of services**
  The number of facilities offering special programs for dually-diagnosed clients, has grown, but still remains inadequate. By 1999, 57 percent of facilities with a mental health focus provided dual diagnosis programs, and nearly half of substance abuse treatment facilities provided these programs (DASIS Report, 2002). Facilities offering hospital inpatient care have been found to be more likely to provide service for dually diagnosed clients than other types of facilities (DASIS).
- **Placement preferences of the family**
- **Child or adolescent's treatment history**

Source: Bukstein, 1998, for listing of factors; description sources as noted.

Treatment Methods

There are numerous methods that are used to treat children and adolescents with a dual diagnosis. The most prevalent are discussed in the following paragraphs.

Cognitive Behavioral Therapy

This goal of cognitive behavioral therapy is the identification and modification of maladaptive thinking patterns to reduce negative thoughts, feelings and behavior. For substance abusers, the focus of this intervention is generally relapse prevention (U.S. National Institute on Drug Abuse [NIDA], 1999). It is intended to help the adolescent develop greater self-control, identify environmental and internal triggers leading to relapse, and develop strategies for dealing with stressors, triggers, and lapses into substance use. The role of the service provider is to aid the youth in anticipating the problems that they are likely to meet, and to help them to develop effective coping strategies. Studies have indicated that cognitive behavioral therapy has positive effects with adolescents treated for mental health disorders such as depression (Bukstein, 1998).

Studies have also shown that cognitive behavioral therapy is effective for adolescents who have been diagnosed with conduct disorder and co-existing substance abuse disorders (Kazdin, as cited by the Journal of the AACAP, 2005). Cognitive behavioral therapy includes elements directed

toward substance use such as relapse prevention, but also addresses social skills, anger control, and problem solving (AACAP).

Group Therapy

This form of therapy provides friendship, socialization, and support to youths who are recovering from co-occurring disorders. The discussion is intended to remind adolescents of negative consequences of substance use and the benefits of abstinence, and to provide advice and encouragement regarding treatment and recovery from mental disorders. Group therapies frequently take the form of self-help groups, such as the Twelve Step program, Alcoholics Anonymous, and Narcotics Anonymous. Although group therapy is a common ingredient in many integrated programs, no consensus exists as to the optimal format, content, or goals of these groups (Mueser et al., 1997). Research is needed to evaluate the benefits of different approaches and to explore whether certain clients are likely to gain more from a particular format.

Behavioral Therapy

The underlying goal of behavioral therapy is to allow the youth and the treatment provider to identify specific problems and areas of deficit and to work on improving these behaviors (Bukstein, 1998). Therapeutic activities are designed to achieve these goals, and may include fulfilling specific assignments, rehearsing desired behaviors, and recording and reviewing progress (NIDA, 1999). Positive reinforcers are provided at intervals based on attainment of the specified goals. This form of treatment is often incorporated into inpatient, residential, or partial hospitalization programs (Bukstein).

After the youth leaves the residential or day treatment setting, parents must continue to exercise supervision of the adolescent's behavior and provide negative consequences for rule violations and rewards for desired behavior. Research shows that, if consistently applied, this type of therapy helps adolescents become drug-free and increases their ability to maintain abstinence after treatment ends (NIDA, 1999). Participants have also been found to show improvement in areas such as employment, school attendance, family relationships, depression, and institutionalization (NIDA). It is important to note that these gains have been largely attributed to the inclusion of family members in treatment and the use of a reward system to achieve substance abstinence (NIDA).

Skill Development

Because co-occurring disorders often disrupt normal skill development, treatment and rehabilitation often include assistance in developing needed skills and functions that were passed by while the child was struggling with the untreated disorders (SAMHSA, 1997). Skill development is often delivered in the cognitive-behavioral format (Bukstein, 1998). The general focus of treatment includes educating the youth with relapse prevention skills, substance refusal skills, communication skills, problem-solving, anger control, and leisure time management. While it is frequently incorporated in treatment plans, there is little research available regarding which methods are most effective in dually-diagnosed populations.

Family Therapy

This type of therapy is often considered an essential part of treatment for adolescents with substance use disorders (Bukstein, 1998). While many theoretical approaches have been utilized, the goal of most programs is to provide education, to improve communication and functioning among family members, and to reestablish parental influence through parent management training (Bukstein). One popular form is multidimensional family therapy (MDFT), which is an outpatient family-based treatment for teenagers with serious substance abuse issues (NIDA, 1999). This approach views drug use in terms of network of influences (individual, family, peer, community) and encourages treatment across settings in multiple ways. Sessions may be held in a clinic, home, court, school, or other community locations.

For the affected youth, the emphasis of treatment is on skill-building, and the treatment plan often incorporates developmental tasks such as decision-making, negotiation, problem-solving skills, vocational skills, communication, and dealing with stress (NIDA, 1999). Parallel sessions are held with family members, in which parents examine their parenting style, learn to distinguish influence from control, and learn to have a positive and developmentally appropriate influence on their child. Research supports the use of this type of therapy for teenagers with substance use disorders, but there are no reports of its efficacy in populations with dual diagnosis (Schmidt et al., 1996; NIDA).

Multisystemic Therapy (MST)

This form of therapy is intended to address serious antisocial behavior in children and adolescents who abuse substances. Therapeutic efforts target the child's behavior within the context of the family environment, the school environment, and the neighborhood and community (NIDA, 1999). Treatment occurs in each of the child's natural settings. Research has shown that MST significantly reduces adolescent drug use during treatment and for at least six months after treatment (NIDA). It has also been found to reduce the amount of juvenile incarcerations and out-of-home placements (NIDA); however, this form of therapy has not been tested specifically in dually-diagnosed populations.

MST is associated with significant, long-term reductions of aggressive behaviors with chronic and violent juvenile offenders (Henggeler & Brondino, 2002). Clinical trials indicate that MST is an effective intervention for substance-abusing youth, particularly for marijuana abstinence (Henggeler & Brondino).

Individual Psychotherapy

Interpersonal therapy and psychodynamic therapies are methods of individual counseling that are often incorporated into the child or adolescent's treatment plan. The effectiveness of these two forms of treatment is suggested from case reports and clinical experience, but no controlled studies support the use of these methods in children and adolescents with dual-diagnosis (Bukstein, 1998).

Pharmacotherapy

Medications are often an important element of treatment for dually-diagnosed patients. The children who are most often prescribed medication are those with depression and mood disorders, ADHD, severe aggressive behavior, and anxiety disorders (Bukstein, 1998). Other factors that may prompt the use of medication are a significant family history of psychiatric disorder, past treatment

failures and relapses, and past success using medication in treating the symptoms of the disorder (Bukstein).

According to NIDA (1999) conclusions, pharmacotherapy should be combined with counseling and other therapies. They stipulate, however, that the use of medication should only be pursued as a last resort in the dually-diagnosed population, as substance use disorders may increase the potential for misuse and overdose. Further, medications should only be prescribed to those children and adolescents who displayed psychiatric symptoms prior to the substance use, or if the symptoms are present during periods of abstinence. A definitive assessment requires that the youth remain abstinent from the use of substances for a set period of time, typically several weeks.

To date, little research has been done regarding the effectiveness of medications in adolescents with co-occurring substance use and psychiatric disorders. Clinical trials with pemoline and bupropion for ADHD and fluoxetine for depression have shown promise (AACAP, 2005). More recently, a trial of a stimulant medication demonstrated the efficacy of medication improving ADHD symptoms in adolescents with comorbid ADHD and substance abuse disorder. This study also demonstrated that medication treatment of ADHD alone, without specific substance abuse disorder or other psychosocial treatment, did not decrease substance use (AACAP). Preliminary trials with lithium and selective serotonin reuptake inhibitors produced considerable improvements in adolescents with substance abuse disorders and comorbid mood disorders (AACAP).

According to the Practice parameter for the assessment and treatment of children and adolescents with substance use disorders, some commonly used pharmacological agents, such as psychostimulants and benzodiazepines, have valid abuse potential (AACAP, 2005). Alternative agents to psychostimulants should be considered because they possess lower potential for abuse. Although many anxiety symptoms or disorders in adolescents can be treated successfully with psychosocial methods such as behavior therapy, selective serotonin reuptake inhibitors, tricyclic antidepressants, or buspirone are preferred to the use of benzodiazepines (AACAP).

Medical Detoxification

This is a form of pharmacotherapy that may be pursued as the first stage in addiction treatment. The goal is to treat any withdrawal effects by substituting a legal drug for an illicit one during prolonged periods of abstinence. This approach is most frequently used for chronic abusers of highly addictive substances such as opium (i.e., methadone treatment) (Bukstein, 1998). Research has shown that detoxification will not by itself change long-term drug use, and must be incorporated into a long-term treatment plan (NIDA, 1999). Furthermore, it is important to note that substitutions such as methadone are infrequently used in children and adolescents, and are often limited by law (Bukstein). Detoxification should be reserved for only the most severely dependent adolescents who have been resistant to other forms of treatment (Bukstein).

Complicating Factors in Treatment Efforts

There are many factors that can impact the success of treatment efforts in children with multiple diagnoses. One of the most significant is the national prevalence of separate mental health and substance abuse service delivery systems. Research has found that "coordination of treatment plans is the exception, not the rule" (SAMHSA, 1997).

Rather than utilizing the integrated treatment approach, many service agencies pursue parallel mental health and substance abuse treatment plans for dually-diagnosed children. Under this framework, the child receives concurrent treatment from two separate providers: one for substance abuse, and the other for mental health. As a result, efforts are often complicated by a clash of treatment philosophies. Clinicians in the mental health system tend to support the self-medicating hypothesis, and place less emphasis on treating the substance abuse disorder and more on the mental disorder, believing that the substance abuse will subside once the mental disorder is treated (SAMHSA, 1997). However, substance abuse clinicians tend to adopt the opposite view, believing that the symptoms of the mental disorder are brought on by the use of substances. They will consequently focus their efforts on abstinence and relapse prevention (SAMHSA). Children being treated on these parallel tracks can easily get caught in the middle, and are often confronted with conflicting strategies, goals, and activities.

However, it is important to note that there are also difficulties presented for those agencies that pursue the integrated treatment approach. Mental health and substance abuse treatments often fall into separate funding streams, and the integrated approach may therefore complicate the funding process of and cause the child to become ineligible for certain resources (SAMHSA, 1997). Agencies that adopt the integrated approach must support a policy of coordinated funding streams in order to ensure that children remain eligible for all of available resources in the community.

There are also certain issues that impact the recognition and diagnosis of co-occurring disorders. First of all, parents often do not bring children in for treatment of an initial disorder if the behavior is not dangerous or disruptive (Greenbaum et al., 1966). Consequently, opportunities for prevention and early intervention are often missed. Furthermore, many clinicians are trained in either mental health or substance abuse exclusively, and may not recognize the symptoms of the co-occurring disorder. As a result, one problem may be diagnosed while the other is missed (SAMHSA, 1997).

The probability of successful outcome is also significantly impacted by the duration of treatment. Substance abusers who fail to complete treatment programs have a much higher likelihood of relapse (NIDA, 1999). Factors that have been associated with noncompletion of treatment in children and adolescents with dual diagnosis include a younger age of onset, more extensive alcohol use, abuse of multiple drugs, and deviant behavior (Bukstein, 1998). Clinicians should therefore make every effort to ensure that children and families remain engaged in treatment, and should be alert for common predictors of relapse such as specific thoughts, feelings, and cravings, less improvement in school or work, and less satisfactory leisure activities (NIDA). It is also important that clinicians recognize that treatment or improvement in one disorder may not lead to the improvement of the other. Rather, the interaction between mental illness and substance abuse may be negative, with the deterioration or relapse related to one disorder causing the other disorder to be exacerbated. It is for this reason that experts emphasize the importance of long-term treatment plans that incorporate the possibility of relapses and rehospitalizations (SAMHSA, 1997).

Contraindicated Treatments

Benzodiazepines, typically prescribed for anxiety, are usually contraindicated in the presence of a substance abuse disorder due to their addictive properties (SAMHSA, 1997).

Cultural Considerations

In research cited by Walton (2001), studies suggest that females may enter substance abuse treatment with unique needs. They present symptoms of greater psychological distress, such as low self-esteem and depression, and are much more likely to report prior physical and/or sexual abuse than their male counterparts. These issues must be effectively addressed within the context of treatment in order to improve outcomes.

In addition, Walton (2001) cites research which has found that women and minorities often enter treatment with fewer financial resources and positive social supports. For example, studies have found that African-Americans are at a higher risk of relapse because they often face more difficult social situations following treatment, such as high-stress and low-support environments resulting from low income urban neighborhoods with higher crime rates.

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Organizations

National Alliance for the Mentally Ill (NAMI)
Colonial Place Three
2107 Wilson Boulevard, Suite 300 - Arlington, VA 22201-3042
703-524-7600
http://www.nami.org

National Clearinghouse for Alcohol and Drug Information (NCADI)
P.O. Box 2345 - Rockville, MD 20847-2345
800-729-6686
http://www.health.org

National Institute on Alcohol Abuse and Alcoholism (NIAAA)
6000 Executive Boulevard, Willco Building - Bethesda, MD 20892-7033
301-443-1124
http://www.niaaa.nih.gov

National Institute on Drug Abuse. *Principles of Drug Addiction Treatment: A Research-Based Guide*. National Institute of Health: October 1999.

National Institute on Drug Abuse (NIDA)
6001 Executive Boulevard - Bethesda, MD 20892-9561
301-443-1124
http://www.nida.nih.gov

National Mental Health Association (NMHA)
2001 North Beauregard Street, 12th Floor - Alexandria, VA 22311
800-969-NMHA (6642)
E-mail: infoctr@nmha.org
http://www.nmha.org

Substance Abuse and Mental Health Services Administration (SAMHSA)
U.S. Department of Health and Human Services
5600 Fishers Lane - Rockville, MD 20857
800-487-4890
http://www.samhsa.gov

The National GAINS Center for People with Co-Occurring Disorders in the Justice System
Policy Research, Inc.
262 Delaware Ave. - Delmar, NY 12054
518-439-7415
E-mail: gains@prainc.com
http://www.prainc.com

YOUTH SUICIDE

Introduction

Suicide and suicide attempts by children and adolescents constitute a major public health problem in the United States. Each year in the United States, thousands of teenagers commit suicide. Suicide is the third leading cause of death for 15-to-24-year-olds, and the sixth leading cause of death for 5-to-14-year-olds (American Academy of Child and Adolescent Psychiatry [AACAP], 2004). Moreover, the middle teenage years are the period in the life cycle where the incidence of suicide attempts is the greatest (Fritz, 2001). The National Alliance for the Mentally Ill [NAMI], (2004) reports the following statistics for youth suicide in 2003:

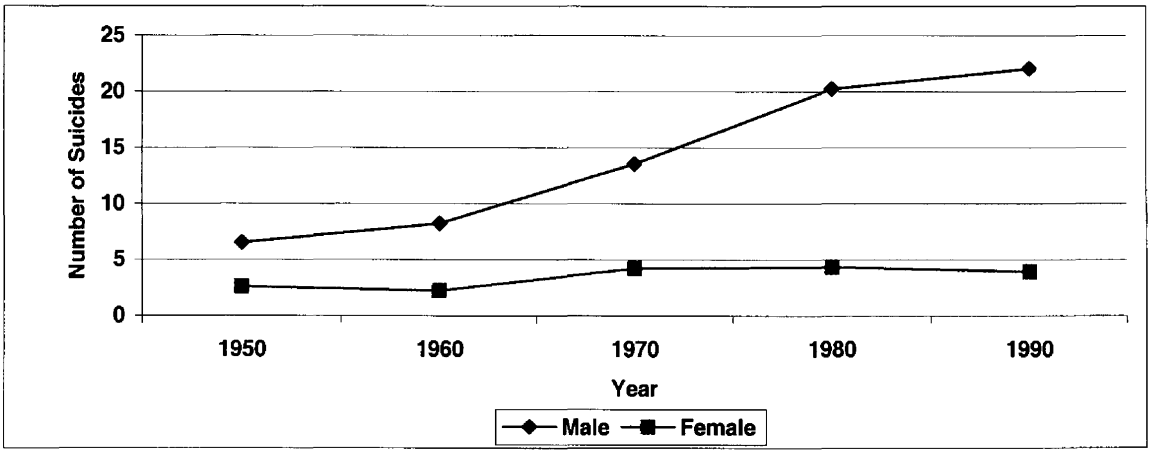
- The suicide rate among children aged 10-14 was 1.5/100,000, or 300 deaths among 19,895,072 children in this age group.
- The suicide rate among adolescents aged 15-19 was 8.2/100,000, or 1,621 deaths among 19,882,596 adolescents in this age group.
- The suicide rate among young people aged 20-24 was 12.8/100,000, or 2,373 deaths among 18,484,615 people in this age group.

Over the last thirty years, there has been a sharp proliferation at the national level in the rates for both completed suicide and suicide attempts among adolescents and young adults. According to Garland and Zigler and cited by the Virginia Commission on Youth (2001), the adolescent suicide rate increased 200 percent over the last three decades, compared with a 17 percent increase in the general population. According to the National Center for Health Statistics (Virginia Commission on Youth), in 1998, an average of one young person every two hours took his or her own life. Furthermore, the actual number of deaths caused by suicide is likely to be higher due to the fact that some of the deaths may have been classified as accidental. Chart 1 shows the suicide rates for persons in the U.S. ages 15 to 24.

There has been increasing attention paid to the issue of suicide and suicide prevention and, in 1999, the U.S. Surgeon General issued a "Call to Action" emphasizing the need for greater awareness on this national problem (Vetter, 2002). Shortly thereafter, the National Strategy for Suicide Prevention was published by the U.S. Department of Health and Human Services, addressing issues such as collaboration with agencies and stakeholders (Vetter). Table 1 sets forth Virginia's suicide statistics.

Chart 1

U.S. Suicide Rates* for Persons 15-24 Years of Age



* Per 100,000 persons.

Source: American Association of Suicidology, 2000, as cited by the Virginia Commission on Youth, 2001.

Table 1

Virginia Suicide Statistics

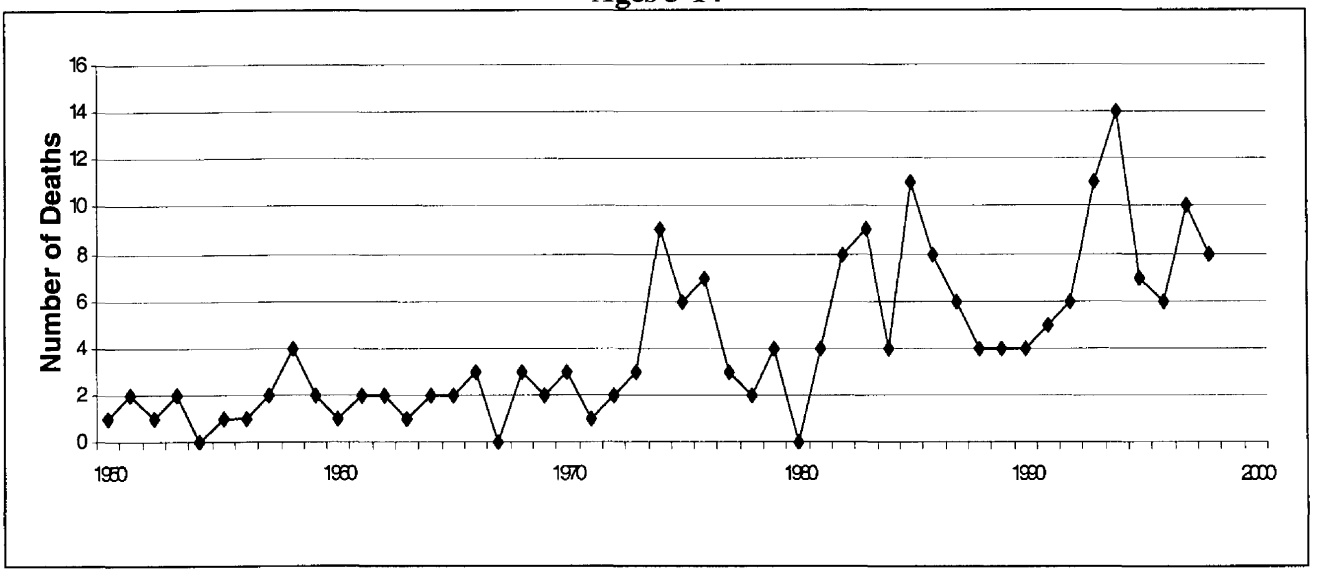
In Virginia, suicide is:
- the third leading cause of death for ages 10-24,
- the second leading cause of death for ages 25-34, and
- the fourth leading cause of death for ages 35-54.
- In almost all age groups, Virginia's suicide rates are slightly higher than the national average.
- One teenager a week, two adults each day, and one older adult every 3 days are lost to suicide.
- There are an estimated 25 suicide attempts for every death by suicide.
- In 2000, the total cost for hospitalizations due to suicide attempts in Virginia was over $25 million.

Source: Vetter, 2002.

The Virginia Department of Health conducted a study on Suicide in the Commonwealth of Virginia and the findings are discussed in the following paragraphs. The study revealed that the suicide rate for young Virginians, aged 10 to 19, had increased an alarming 32 percent since 1975. In 1998, seven Virginia children, aged 5-14, were reported to have died from suicide. Another 50 children, aged 15-19 ended their lives. Chart 2 shows Virginia deaths for children and adolescents from 1950 to 1998.

Chart 2

Virginia Deaths from Suicides 1950-1998
Ages 5-14



Source: Virginia Center for Health Statistics, 2000, as cited by the Virginia Commission on Youth

Contributing Factors in the Rise of Youth Suicide

According to NAMI, suicide is the result of many complex factors (2004). More than 90 percent of youth suicide victims have at least one major psychiatric disorder (Gould et al., as cited by NAMI, 2004). Hopelessness appears to be an important mediating variable between depression and suicide (Gould et al., 2004). Anxiety, particularly when it co-occurs with depression, also increases the risk of suicide (Gould et al.).

Several factors contribute to a child or adolescent attempting or completing suicide. The American Academy of Pediatrics, as cited by the Virginia Commission on Youth (2001), identifies a number of factors which may explain the dramatic increase in youth suicide in recent years:

- It's easier to get the tools for suicide. (Males often use firearms to kill themselves; females usually use pills.)
- The pressures of modern life are greater.
- Competition for good grades and college admission is stiff.
- More violence is seen in the media.
- Parents may be less involved in their children's lives.

Warning signs for suicide are shown through changes in a person's normal behavior and may include: loss of interest in activities once thought of as pleasurable, giving away possessions of personal value, substance abuse, change in weight, apathy about appearance, personality changes and an increase in self-harming behaviors (Better Health Channel, 2000).

Other important risk factors for suicide and suicidal behavior, according to NAMI (2004), include:

- Prior suicide attempt
- Co-occurring mental and alcohol or substance abuse disorders
- Family history of suicide
- Parental psychopathology
- Hopelessness
- Impulsive and/or aggressive tendencies
- Easy access to lethal methods, especially guns
- Exposure to the suicide of a family member, friend, or other significant person
- History of physical or sexual abuse
- Same-sex sexual orientation (shown only for suicidal behavior, not suicide)
- Impaired parent-child relationships
- Life stressors, especially interpersonal losses and legal or disciplinary problems
- Lack of involvement in school and/or work ("drifting")

If adolescents are currently receiving psychiatric treatment for a mental health disorder, these risk factors can be discussed with the family and the treatment team so that the adolescent can be appropriately monitored.

Table 2 presents statistics addressing risk factors for youth suicide.

Table 2

Risk Factors for Youth Suicide

- Suicide is much more common in adolescent and young adult males than females.
- The ratio for male to female suicides is 3:1 in the rare prepubescent suicides to approximately 5.5:1 in 15- to 24-year-olds.
- Mood disorders, poor parent communication, and a previous suicide attempt are risk factors for suicide in both boys and girls.
- Previous suicide attempts are more predictive in male.
- Substance and/or alcohol abuse significantly increases the risk of suicide in teenagers aged 16 and older.
- Family pathology and a history of family suicidal behavior may also increase risk and should be investigated.

Source: American Academy of Pediatrics, as cited by the Virginia Commission on Youth, 2001.

Research reveals that youth suicide is neither random nor inevitable. The Virginia Commission on Youth (2001) discussed in its summary of findings that—in order to address youth suicide and the problem—one must also be made aware of the dynamics surrounding this issue. In its report, *Suicide Fatalities among Children and Adolescents in Virginia 1994-95*, the Virginia State Child Fatality Review Team found that more than 40 percent of the children who took their lives had told someone about their intent to die (Virginia Commission on Youth). Unfortunately, for various reasons, the opportunity to intercede was lost. Also discussed in the report were the significant findings that the warning signs for youth suicide were not recognized, the extent of the problem was not understood, the means for conducting the act were not removed, and families often thought they could handle the problems themselves. Contributing to the problem was that families may not have known where or how to get help, or that help in fact was not available.

A recent study has shown that many adolescents who report having suicidal thoughts or behaviors are not known by school officials to be at risk (Moyer, 2004). Identifying these students would help to diagnose potential mood disorders and treat symptoms sooner, before any serious suicide attempts (Moyer).

There has been considerable debate about the use of antidepressants in treating youth and whether their use increases the risk of suicidal behaviors. A further description of the use of antidepressants is included in the "Antidepressants and the Risk of Suicidal Behavior" section of the *Collection.*

Mental Health Disorders and Youth Suicide

The factors that predispose children and adolescents to complete suicide are numerous.

The AACAP's *Practice Parameter for the Assessment and Treatment of Children and Adolescents with Suicidal Behavior* (2000) discusses the importance of understanding the various risk factors for potential suicidal behavior. The following elements are discussed in this practice parameter:

> Awareness and acknowledgment of the various risk factors that can trigger both suicide and suicide attempts are crucial in assessing and potentially preventing suicide. Such factors include preexisting psychiatric disorders, which are considered to be both biological and social-psychological facilitating factors. More than 90 percent of adolescents who commit suicide suffered from an associated psychiatric disorder at the time of their deaths. More than half had suffered from a psychiatric disorder for at least two years preceding the event.
>
> Disruptive disorders increase the risk of suicidal thoughts in children 12 years old and younger. Moreover, substance use or separation anxiety may incite adolescents to attempt suicide. Mood and anxiety disorders increase the risk of suicidal ideation in children and adolescents. Panic attacks are a risk factor for both ideation and attempts in females, while aggressiveness increases the risk of suicidal ideation or attempt in males.
>
> As stated in a Joint Statement by the American Academy of Child & Adolescent Psychiatry & American Psychiatric Association (2001), some of the psychiatric illnesses in adolescents which include suicidal thoughts or behaviors include depression, ADHD, and bipolar disorder. Depression has been identified as the top risk factor in youth suicide with estimates of five percent of children and adolescents in the general population being depressed at any point in time. Children at a higher risk for depression are those under stress, those experiencing loss, and those with attention, learning, conduct or anxiety disorders. Also, studies conducted disclose that teenagers with bipolar disorder may have an ongoing combination of moods which may make the child at risk.

Stress events often precede adolescents' suicides; however, it is difficult to discern whether the stress is a result of the mental disorder or is related to events with which the child or adolescent having a mental disorder may not be able to cope (AACAP, 2000). Furthermore, an adolescent with a mental disorder may be faced with a greater number of stressful events and may perceive the events that occur as more stressful than an adolescent who does not have a diagnosed mental disorder (AACAP).

Even the most capably trained clinician can find it difficult to differentiate between those youth who have thoughts of engaging in suicide and those youth intending to commit the act of suicide. Many adolescents who have made a medically serious attempt will never do so again, while others who have made what seemed like only a mild attempt may eventually commit suicide (AACAP, 2001). However, research has provided some broad indicators about risk factors and means for assessing the risk.

Virginia's Suicide Prevention Plan

Senate Joint Resolution 148, introduced in the 2000 General Assembly, directed the Commission on Youth, with the assistance of the Departments of Health, Education, and Mental Health, Mental Retardation and Substance Abuse Services, to develop a comprehensive youth suicide prevention plan. With the support of the departments identified above and significant input from survivors, service providers, and other stakeholders, the Commission undertook development of the plan.

The goals of the Virginia Youth Suicide Prevention Plan, as presented by the Virginia Commission on Youth (2001), were:

- To prevent suicidal behavior among youth in Virginia;
- To reduce the impact of suicide and suicidal behavior on individuals, families, and communities; and
- To improve access to and availability of appropriate prevention services for vulnerable individuals and groups.

The Commission on Youth conducted an extensive review of the research and, in the Suicide Prevention Plan, discussed the evidence for effectiveness of various youth suicide prevention strategies in place around the country. General recommendations were made, based on research compiled by the Centers for Disease Control and Prevention (1992):

- Ensure that new and existing suicide prevention programs are linked as closely as possible with professional mental health resources in the community.
- Avoid reliance on one prevention strategy.
- Incorporate promising but underused strategies into current programs where possible.
- Expand prevention efforts for young adults, aged 20-24 years of age.
- Incorporate evaluation efforts into all new and existing suicide prevention programs.

Universal prevention strategies were recommended as part of Virginia's Youth Suicide Prevention Plan. The Commission on Youth model for Virginia's Youth Suicide Prevention Plan was adapted from the model developed by the Institute of Medicine and the National Institutes of Health. The prevention scheme included three levels of prevention strategies: universal, selective, and indicated. This three-tier approach targeted prevention at varying degrees and to different audiences.

Universal prevention is the provision of needed interventions to keep communities healthy. These programs provide general awareness information and education. The mission of selective prevention is to prevent the onset of suicidal behavior in targeted risk groups. These strategies include screening and assessment, training of "gatekeepers," and community-based mental health treatment. Finally, indicated prevention strategies target individual youth known to be at high risk for suicide in order to provide skill building and supportive services and treatment.

Upon the recommendation of the Virginia Commission on Youth, the 2001 General Assembly enacted legislation which designated the Virginia Department of Health as the lead agency for directing youth suicide prevention activities across the Commonwealth. The Department of Health was charged with coordinating the activities of agencies pertaining to youth suicide prevention to address various preventive and support issues. Currently, the Department of Heath and the Virginia Department of Mental Health Mental Retardation and Substance Abuse Services actively participate in the Virginia Suicide Prevention Council, a public-private partnership designed to concentrate on suicide prevention in the Commonwealth. These activities assist with education and the implementation of prevention practices found to be crucial in reducing youth suicide.

Evidence-based Practices in Youth Suicide Prevention

As interventions for preventing suicide are developed and implemented, several key factors must be considered. It is critical that youth with psychiatric disorders or otherwise at increased suicidal risk receive adequate assessment, treatment, and follow-up care (U.S. Department of Health and Human Services, 2001).

The following finding emerged from information reported by the U.S. Department of Health and Human Services (2001):

> Clinical studies have shown the efficacy of training emergency department staff to treat suicide attempts with gravity and to emphasize to family members the dangers of ignoring suicide attempts. Furthermore, the benefits of follow-up treatment to reduce the recurrence of attempted suicide should be emphasized. Such training has been linked to greater completion of treatment on the part of persons having sought care in emergency departments.

According to the AACAP and the American Psychiatric Association (APA) (2001), clinicians should be prepared to admit suicide attempters who express a persistent wish to die or are exhibiting symptoms of severe mental disorders. Discharging the youth should occur only after the following three issues have been addressed. These include: making certain adequate supervision is available; ensuring that the level of suicidality has stabilized; and gaining assurance that the youth's environment will be rid of all potentially-lethal items such as guns or medications. Following up with appropriate psychotherapy is vital in order to appropriately treat the mental disorders associated with suicidal behavior. Additionally, psychotherapy must be tailored to meet the needs of the youth appropriately and to treat any diagnosed mental disorders effectively.

Coping behaviors developed during adolescence may be precursors of patterns of coping through adulthood so it is imperative that service providers and researchers understand the range and associated coping behaviors that adolescents may establish (Gould et al., 2004). Thus, cognitive behavioral approaches may provide a method to assess coping strategies and beliefs that may be associated with maladaptive beliefs (Gould et al.) This is based on study findings that indicate that adolescents who are at risk of suicidal behavior are less likely to employ appropriate coping strategies (Gould et al.). Gould asserts that high-risk adolescents may possess beliefs that support the use of maladaptive coping strategies (such as substance use) to deal with depression and suicidal thoughts and behaviors.

Pharmacological Treatment

U.S. Department of Health and Human Services (2001) has outlined pharmacological interventions thought to be effective in reducing suicide. However, it must be emphasized that any medications prescribed to the suicidal child or adolescent must be carefully monitored by a third party and any change of behavior or side effects immediately reported. New interventions are being developed and tested for the treatment of disorders associated with suicidal behaviors. Because few studies of treatments for mental disorders have included suicidal individuals, treatments need to be assessed for their potential to reduce suicide and suicidal behaviors. Furthermore, the youth must be thoroughly assessed for any mental disorders and psychopharmacological interventions must be tailored to address any diagnosed disorders.

To date, there are only two psychopharmacological treatments that have been associated with reduced suicide—lithium and clozapine (Baldessarini et al., as cited by the U.S. Department of Health and Human Services, 1999). Research into lithium, which is shown to have a significant impact on the reduction in the suicide rate, is extensive.

According to the AACAP and the APA (2001), selective serotonin reuptake inhibitors (SSRIs) may be successful in reducing suicidal ideation and suicide attempts in non-depressed adults with certain personality disorders. However, it is necessary to closely monitor children and adolescents on SSRIs to insure that no new suicidal ideations are noted.

Antidepressants and the Risk of Suicidal Behavior

The information discussed below is attributed Gould et al. (2004). There has been considerable debate about the use of antidepressants in treating children and adolescents with depression and whether SSRIs increase the risk of suicidal behaviors in these youth. Some researchers assert that increased prescriptions of SSRIs have resulted in decreased suicide rates. However, findings from randomized controlled trials reveal that certain medications are contraindicated for youth under 18 years of age. As directed by the Food and Drug Administration in September of 2004, manufacturers in the United States are now required to place a "black box" warning label on these medications.

A more detailed discussion regarding the use of antidepressants in treating children and adolescents is included in the "Antidepressants and the Risk of Suicidal Behavior" section of the *Collection*.

Contraindicated Treatments

As noted by the AACAP and the APA (2001), tricyclic antidepressants should not be prescribed for the suicidal youth as a first line of treatment because the potential for toxic effect outweighs the therapeutic effects. Studies have not found these drugs to be effective in reducing suicide in children or adolescents. Furthermore, other medications that may increase disinhibition or impulsivity, such as the benzodiazapines and Phenobarbitol, should be prescribed with caution.

Cultural Considerations

The following is taken from a synopsis of proceedings for a NIMH conference held in 2004 at the Annenberg School for Communications and Inn at the University of Pennsylvania.

> According to the Centers for Disease Control and Prevention, valid measurement of suicidality for many cultures remains a critical need. Research with culturally and linguistically diverse populations raises a number of issues including variation in concepts and language for suicide, measurement correspondence, and communication of internal processes related to suicide concepts. This includes how emotional and cognitive states are communicated and addresses the variations that exist in language usage. Cultural relevance must be addresses in both concept and intervention (e.g., the role of family, religious traditions, and values or rituals).

According to *Health, United States, 2004*, as reported by the Technical Assistance Partnership for Child and Family Mental Health, adolescent Hispanic females are significantly more likely than adolescent Hispanic males to consider suicide, attempt suicide, and injure themselves in attempting suicide. The rate of suicide attempts among female Hispanic youth also exceeds that for their African-American and Caucasian female counterparts. This disparity has been attributed to sex role socialization, acculturation, social and linguistic isolation, and depression.

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Additional Resources/Organizations

American Association for Suicidology
1-800-273-TALK (8255)
http://www.suicidology.org

American Foundation for Suicide Prevention
http://www.afsp.org

The Children's Safety Network
http://www.childrenssafetynetwork.org

Florida Initiative for Suicide Prevention
http://www.fisponline.org

Jason Foundation
http://www.jasonfoundation.com

The Link's National Resource Center for Suicide Prevention
http://www.thelink.org

National Hopeline Network and the Kristin Brooks Hope Center
800-SUICIDE 784-2433
http://www.hopeline.com

National Suicide Prevention Resource Center
1-800-273-TALK (8255)
http://www.sprc.org

National Youth Violence Prevention Resource Center
http://www.safewyouth.org

Organization of Attempters and Survivors of Suicide in Interfaith Service (OASSIS)
http://www.oassis.org

Prevent Suicide Now
800-SUICIDE 784-2433 (Prevent Suicide Virginia)
http://www.preventsuicidenow.com/virginia-suicide-hotlines.html

Suicide Awareness Voices of Education
http://www.save.org/symptoms.html

Suicide Prevention Advocacy Network USA, Inc. (SPAN)
http://www.spanusa.org

National Alliance for the Mentally Ill (NAMI)
http://www.nami.org

U.S. Department of Health and Human Services
National Strategy for Suicide Prevention
http://www.mentalhealth.org/suicideprevention/strategy.asp

Virginia Department of Health Center for Injury and Violence Prevention
Calvin Nunnally, Suicide and Youth Violence Prevention Consultant
P.O. Box 2448, 1500 E. Main St., Room 105 - Richmond, VA 23218-2448
804-864-7736
http://www.vahealth.org/civp/preventsuicideva/index.asp

Youth Suicide Prevention Program (YSPP)
http://www.yspp.org

Crisis Centers in Virginia Localities

Information is provided by the Virginia Department of Health's Suicide and Youth Violence Prevention Program and local providers.

Arlington
CrisisLink
703-527-4077 (TTD Accessible)

Blacksburg
Access Emergency and Emergency Services
540-961-8400

Bristol
540-628-7731
540-466-2312

Charles City County
804-966-2496

Charlottesville
804-295-8255

Chesterfield County
804-748-6356

Danville/Pittsylvania County
804-792-4357

Dumfries
703-368-4141
Teen line 703-368-8069
Spanish 703-368-6544

Goochland County
804-556-3716

Hampton
757-245-0217

Hanover County
804-752-4200

Henrico Mental Health
804-261-8484

Lynchburg
Crisis Line of Central VA
888-947-9747 or 804-947-4357
Teen talk 888-299-7277

Martinsville
Contact for Martinsville/Henry County
540-632-7295
540-489-5490 - Franklin
540-694-2962 – Patrick & TeenLine

Middle Peninsula
804-758-9398

New Kent County
804-966-2496

Newport News
757-245-0217

Norfolk
757-622-1126

Northern Neck
804-758-9398

Page County
540-743-3733

Powhatan County
804-598-2697

Richmond
804-819-4100

Roanoke
540-344-1948
Teen line: 540-982-8336

Shenandoah County
540-459-4742

Warren County
540-635-4357

Winchester
540-667-0145

National Suicide Hotlines

Toll-Free / 24 hours / 7 days a week

National Hopeline Network
1-800-SUICIDE
1-800-784-2433

National Suicide Prevention Lifeline
1-800-273-TALK
1-800-273-8255

http://suicidehotlines.com/national.html
TTY: 1-800-799-4TTY (4889)

SCHOOL-BASED MENTAL HEALTH SERVICES

Introduction

It should come as no surprise that schools nationally are the major providers of mental health services for children (Rones & Hoagwood, 2000). Although only 16 percent of all children receive mental health services, 70 to 80 percent of this number receive that care in the school setting (The Center for Health and Health Care in Schools, 2002). Schools provide a setting for the early identification of emotional and behavioral problems and provision of services, due to the critical, daily role they play in the growth and development of children. Furthermore, services offered in the school environment are more convenient to children and families and therefore are far more likely to be utilized than many services in the community.

Although schools are not the primary agency responsible for addressing emotional and behavioral issues, they cannot ignore them if they intend to fulfill their mandate to educate all children. The Individuals with Disabilities in Education Act (IDEA) requires that schools follow specific procedures to meet the educational needs of children with disabilities. While a discussion of the requirements of the Act is beyond the scope of this document, it is important to recognize that children who are impaired by mental health disorders often have a diminished capacity to learn and must be adequately accommodated in the school setting in order to receive the benefits of educational services.

Section 504 of the Rehabilitation Act of 1973 is another federal statute designed to protect the rights of qualified school-aged persons who have a disability. This law protects students having a disability who require modifications to their educational program, but who do not require or are not eligible for special education (National Association of School Psychologists, 2002). Section 504 also requires schools that receive federal funds to provide a free appropriate public education to each qualified person (Virginia Department of Education, 2001). Further, Section 504 requires schools to provide students with disabilities appropriate educational services designed to meet their individual needs to the same extent as the needs of students without disabilities are met (Office for Civil Rights, 2001).

In addition to providing the accommodations required under IDEA and Section 504, schools have responded to the needs of these special populations by implementing numerous programs and services designed to foster prevention, risk-reduction, and intervention/treatment for children with emotional and behavioral difficulties. These services are generally designed to meet one of two broad purposes: universal protection or targeted prevention and intervention. Programs that are intended to provide universal protection are broader in scope, and typically include modification of school policy, implementation of classroom management strategies, development of curricular changes, and facilitation of parent-school communication. In contrast, targeted prevention and intervention efforts involve the identification of at-risk children and adolescents and the creation of accessible services to address their specific needs (Rones & Hoagwood, 2000).

However, while a broad range of school-based programs are reported to exist, the nature and effects of these services remain largely undocumented. There is very little research available to guide the efforts of school officials and policymakers in planning effective school-based services. The bulk of the research is focused on two areas: preventive strategies to manage disruptive behaviors among younger children and interventions for mood disorders among high school students. Consequently, the effectiveness of the treatment programs targeting other populations remains largely untested. Furthermore, many studies have underemphasized school-relevant outcomes, such as the effects of programming on student achievement, attendance, school-related behavior, and dropout prevention (Mattison, 2000). This is especially problematic because these issues are often directly related to serious emotional and behavioral disturbance (Mattison). For example, research has found that students who demonstrate school refusal or truancy often have anxiety disorders, mood disorders, or conduct disorder (Mattison). However, the available research does little to guide school officials in determining how to address these issues as manifestations of mental health disorders. Accountability provisions in *No Child Left Behind*, for example, suggest the urgent need for schools to gather evidence-and inform policymakers-of the positive academic outcomes that result from their activities as mental health service providers (Charvat, 2004). Moreover, a sense of student "connectedness" to schools has been found to have positive effects on academic achievement and to decrease risky behaviors (American Academy of Pediatrics [AAP], 2004).

In response to these gaps in research, analysts have made greater efforts to document the components of successful school-based programs (e.g., Mattison, 2000). These studies have identified several factors that appear to be common elements of successful school initiatives. These elements are outlined in the following paragraphs. However, it is important to note there are few studies that examine any of the topics that concern schools, including absenteeism, disciplinary referral, retention, and dropping out (Mattison).

National Overview

There are several different models for the delivery of school-based services. One of these approaches is the school-based health center model. A school-based health center is a safe, easily accessible location on a school campus where students can go for comprehensive preventive and primary health care services (Center for Mental Health in Schools, 1998). While comprehensive school-based health centers vary in staffing and patterns and services provided,

they share some common features. The following is a listing of such features, as outlined by the Center for Mental Health in Schools:

- The health center is located in the school.
- Parents sign written consents for their children to enroll in the health center.
- An advisory board of community representatives, parents, youth and family organizations participate in planning and oversight of the health center.
- The health center works cooperatively with school staff to assure that the health center is an integral part of the life of the school.
- Clinical services are the responsibility of a qualified health provider.
- A multidisciplinary team providing health care for students.
- The health center provides a comprehensive range of services that specifically meets the serious health problems of young people.

School-based health centers have increasingly become a key provider of health services for children and adolescents (Association for Supervision and Curriculum Development, 2001). This is particularly true for receiving mental health services. The need for appropriate mental health services in schools was documented in a 1997-1998 survey which found that the primary reason students visited the center was to obtain mental health services (Association for Supervision and Curriculum Development).

School nurses also have a key role in assisting children and adolescents in accessing health care within the school system. According to the National Association of School Nurses, ensuring access to quality health care is an important component of school nursing practice (2002). By providing and supervising health care services, in addition to assisting with entry into community sources of health care, the school nurse plays a pivotal role in improving the health and educational success of the school-age child (National Association of School Nurses).

Other delivery approaches include expanding the current role of the school counselor or school psychologist to provide mental health services in school. School-based health services may also be provided by certified nurse practitioners, physician assistants, or licensed or credentialed mental health professionals (social workers, psychologists, etc) (AAP, 2001). *Table 1* shows a listing of various national delivery models.

Implementation Issues

Integration of Mental Health Professionals into the School Environment

Research supports the integration of clinicians, behavior specialists, school psychologists, and social workers into the schools to work directly with students, their families, and members of the school faculty and administration. These professionals offer intensive mental health services, and thereby enable schools to more effectively identify at-risk students and provide early intervention to prevent further emotional and behavioral difficulties (Woodruff et al., 1999).

Creation of a "System of Care" Within the School Environment

School-based wraparound services have also been found to support learning and transition for children with special needs. Wraparound services in this context may include assistance in getting a child to school, after-school care, and successful transitions from more restrictive educational placements into the regular classroom setting. These services may be coordinated through the

creation of service planning teams consisting of family members, school-based clinicians, and agency representatives (Woodruff et al., 1999).

Table 1

Delivery Mechanisms for U.S. School-Based Mental Health Programs

1. **School-Financed Student Support Services** – Most school districts employ pupil services professionals such as school psychologists, counselors, social workers, and school nurses to perform services related to mental health and psychosocial problems (including related services designated for special education students). The format for this delivery mechanism tends to be a combination of centrally based and school-based services.

2. **School-District Mental Health Unit** – A few districts operate specific mental health units that encompass clinic facilities, as well as providing services and consultation to schools. Some others have started financing their own School-Based Health Centers with mental health services as a major element.

3. **Formal Connections with Community Mental Health Services** – Some schools have developed connections with community agencies, often as the result of the school-based health center movement, school-linked services initiatives (e.g., full service schools, family resource centers), and efforts to develop systems of care (wraparound services for those in special education).

4. **Classroom-Based Curriculum and Special "Pull Out" Interventions** – Most schools include a focus on enhancing social and emotional functioning. Specific instructional activities may be designed to promote healthy social and emotional development and/or prevent psychosocial problems such as behavior and emotional problems, school violence, and drug abuse. Special education classrooms always are supposed to have a constant focus on mental health concerns.

5. **Comprehensive, Multifaceted, and Integrated Approaches** – Some districts have assessed their fragmented approaches to addressing barriers that interfere with students having an equal opportunity to succeed at school. They have restructured their student support services with community resources and integrated all this with instructional efforts that effect healthy development. Mental health and psychosocial concerns are a major focus.

Source: Policy Leadership Cadre for Mental Health in Schools, 2001.

Within this school-based system of care, research has found that the use of school-based case management is highly beneficial. Case managers can support the planning process by working with parents and school staff to establish behavioral management and long-term academic goals. They can also be used to coordinate school- and community-based services for students and families to ensure that the child successfully remains in the school and in the home (Woodruff et al., 1999).

Research has shown that the use of monitors of this type can increase the participation and performance of at-risk students in school (Mattison, 2000).

School-based wraparound services have also been found to support learning and transition for children with special needs. The concept of wraparound is a strength-based approach to service delivery (Milwaukee County Mental Health Division, 1999). Wraparound, as defined by the Wraparound Milwaukee Project, focuses on planning and utilizes an approach based on identifying what services families really need to take care of a child with mental health disorders or severe emotional problems. Personal, community and professional resources are identified to meet these needs and then those services are "wrapped" around the child and family (Milwaukee County Mental Health Division). Wraparound services in this context may include assistance in getting a child to school, after-school care, and successful transitions from more restrictive educational placements into the regular classroom setting. These services may be coordinated through the creation of service planning teams consisting of family members, school-based clinicians, and agency representatives (Woodruff et al., 1999).

The system of care should also incorporate the three-stage approach to mental health services: prevention, early intervention, and targeted intervention. Successful school-based programs incorporate school wide programs to help identify students with or at risk of developing emotional or behavioral disorders and assist them in behavior management and treatment. However, they also provide prevention programming designed to enable students who are not at risk to learn the skills and behaviors that help them to follow school rules and perform well both academically and socially (Woodruff et al., 1999).

Research also supports the creation of "centers" within the school to provide support to children and youth with emotional and behavioral needs. Much like a clinic, these centers are described as areas set aside to provide students with a place to go to meet with clinicians when they feel they need emotional, behavioral, or academic support (Woodruff et al., 1999). School-based health center models are discussed in "National Overview" within this section.

Although schools are a major provider of mental health services for children, many schools are not offering a system of care that creates an adaptive continuum of services (Rones & Hoagwood, 2000). This may be attributed to a variety of reasons, including lack of resources to offer these services. There are several gaps that have been identified in the types of mental health and social problems targeted by school-based mental health programs. For example, Rones & Hoagwood found a lack of school-based programs related to anxiety prevention or intervention. This is problematic, because anxiety is one of the most common mental disorders among children and adolescents, and has often been found to lead to lost school days due to somatic complaints and school refusal. The study also identified a need to develop a greater number of interventions targeted toward middle and high school students with conduct disorder, as well as elementary school students with depression. In addition, the study found a significant lack of programs focusing on special education students, particularly those diagnosed with serious emotional disturbance (Rones & Hoagwood).

Engagement of Families in Educational Planning and Services

Families are a critical component in the provision of mental health services for children. Because of the central role the family plays in the lives of their children, involvement in their child's educational planning and services ensures that services are responsive to the needs of the

child and of the community. The inclusion of parents, teachers, and peers in treatment efforts is vital to enhancing wraparound effect of services. Furthermore, gathering information and assistance from family members ensures that the potential needs of students are effectively identified and treated in all contexts. Consequently, schools need to ensure that families are fully engaged in the educational and mental health services that are provided to the child, and must make every effort to assist them in understanding and navigating the system and services available in the community (Woodruff et al., 1999).

Schools may enhance this process by utilizing family liaisons or advocates. These individuals may attend meetings with family members and assist them in locating resources. Their role may also include conducting courses to educate and empower families and working with the clinicians to ensure that families are meeting the academic, behavioral, and emotional needs of their children (Woodruff et al., 1999). Such an approach promotes family involvement and ensures that the child receives the most favorable treatment and educational experience.

Consistent Program Implementation

Poor program implementation can mitigate the potential benefits of services (Rones & Hoagwood, 2000). Therefore, schools must ensure that the programs they design are being carried out in the most efficient manner possible. Several elements have been identified as crucial to effective program implementation. These are described in Table 2.

Other Environmental and Community Factors

Other factors can also have a significant impact on program success. In order to foster a climate of acceptance, school administrators should create a mission statement that explicitly recognizes the needs of special education students and ensures commitment to specialized programming (McLaughlin, 1993). In addition, it is important that the school leadership supports all efforts and demonstrates willingness to contribute staff and resources to these programs. Furthermore, school officials should remain committed to ensuring that teachers and staff are properly trained and that professional development programs are available (McLaughlin).

The establishment of new school-based initiatives may require administrators and policymakers to be creative in their pursuits of additional funding and resources within the community. Sources of funding may include private health insurance plans, traditional school health funds, the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) program, Medicaid, the Comprehensive Services Act, and other local, state and federal resources. It is extremely important that the funding issues be addressed during the planning phases of program development, as under funded, poorly implemented programming will do little to assist these children and adolescents. The shortage of qualified mental health professionals is another element that cannot be ignored.

Another area that is crucial in the successful delivery of services is the delicate relationship between mental health providers and schools. The lack of functional collaboration between community based mental health systems and the schools is most problematic. Furthermore, there is limited transition planning for children entering into hospitals or returning to school. There is a definite need for coordination among mental health providers and schools to encourage transition planning. This can be accomplished through improved interagency involvement. Such coordination is crucial and enables the individual student to reap maximum benefits from treatment (SJR 99 Advisory Group Meeting, August 14, 2002).

Table 2

Elements Crucial to Effective Program Implementation

- The program goals, rationale, and components should be communicated clearly to faculty, staff, and students. The policy should provide a detailed description of individual responsibilities and expectations, and should include an explanation of all rules, consequences, and any reward system (Rones & Hoagwood).
- The components of the program should be developmentally appropriate. Services should be designed to address specific concerns within a particular age group based on the students' maturity level and social skills (Rones & Hoagwood).
- The most effective programs target specific behaviors and skills, e.g., depression, conduct problems, drug use (Rones & Hoagwood). Consequently, there should be an objective identification and screening process within the school system to identify at-risk students and clarify their intervention needs (Mattison, 2000).
- The program should include multiple approaches to changing behavior. For example, effective school-based programs have been found to incorporate skill building, academic tutoring, parent training, and home visits within the overall service plan (Rones & Hoagwood).
- The program should offer recreational opportunities in non-traditional learning environments such as summer camps and after-school programs, in order to provide learning and exposure to other children in less formal environments. These experiences can also be used to reinforce the pro-social behaviors taught in school-based clinics in other environments (Woodruff et al., 1999).
- The program content should be integrated into the general classroom curriculum. Separate and specialized lessons have been found to be less effective than the incorporation of program elements into the normal educational routine of the school (Rones & Hoagwood).
- All of the parties affected by the service should receive the necessary training and instruction. For example, programs should include teacher training in classroom management techniques, parent training in child management, and child cognitive-social skills training (Rones & Hoagwood).
- The staff involved in these programs should remain continuous in order to allow for stable, long-term relationships with the children and their families (Woodruff et al.).
- Feedback should be provided on a regular basis. The program effects should be continuously evaluated, and consultation and support should be provided to teachers, including refresher training, classroom observation, and small group discussions (Rones & Hoagwood).

Source: Commission on Youth Graphic of Citations as noted, 2002.

Use of Medication in School Settings

Another issue surrounding school-based mental health services that must be addressed is medication delivery. Medication is a customary, evidence-based treatment modality for children and adolescents with certain diagnosed mental health disorders. While once-daily medications are becoming more common, psychotropic drugs may require multiple daily doses that necessitates taking these medications at school (National Conference of State Legislatures, 2005). A report by an urban school district in Minnesota indicated that administration of medications had increased from 1,294 in 1985 to 35,111 in 2000 (National Conference of State Legislatures). This same report

estimates that it takes 22.5 hours per year to administer medication safely to one student diagnosed with attention deficit hyperactivity disorder (ADHD).

As outlined by Superintendent Memorandum Number 54, the Virginia Board of Education issued a policy in 2002 that prohibited school personnel from recommending the use of psychotropic medications for any student. However, school health staff, classroom teachers, or other school professionals could recommend that an appropriate medical practitioner evaluate a student (Virginia Department of Education, 2002).

In Virginia, the majority of school districts have registered nurses employed by the school board or the public health districts in the area. However, school districts frequently have unlicensed, trained individuals administering medications to students (Virginia Department of Health and Department of Education, 1999). Children with mental health needs receive medication in the same manner as children with other medical needs (Sherry Shrader, RN., BSN, Personal Communication, July 18, 2005).

Federal Activity on School Mental Health

School-based mental health delivery has been addressed at the federal level. The President's New Freedom Commission on Mental Health report asserts that schools can clearly assist in addressing mental health problems of school-age youth (2003). No single agency or system has clearly delineated responsibility for children or adolescents with serious emotional disturbances. Moreover, these children are usually involved with more than one system, including mental health, special education, child welfare, juvenile justice, substance abuse, and health (President's New Freedom Commission on Mental Health, 2003).

The President's New Freedom Commission on Mental Health indicated that schools must become partners in mental health care because schools are where children spend a majority of their day (2003). Every day, more than 52 million students attend over 114,000 schools in the United States. When combined with the six million adults working at those schools, almost one-fifth of the population passes through the nation's schools on any given school day (President's New Freedom Commission on Mental Health). Recommendation 4.2 of this report addresses the promotion and expansion of school mental health programs.

The detailed recommendations contained in this report for improving school-based mental health programs are:

- Collaboration between schools and parents, local providers, and local agencies to support screening, assessment, and early intervention;
- Ensuring that mental health services are part of school health centers;
- Provision of federal funding for health, mental health, and education programs;
- Implementation of empirically supported prevention and early intervention approaches at the school district, local school, classroom, and individual student levels; and
- Creating a state-level structure for school-based mental health services to provide consistent State-level leadership and collaboration between education, general health, and mental health systems (President's New Freedom Commission on Mental Health, 2003).

Conclusion

It is important that policy makers recognize the tremendous potential that exists in reaching children with mental health needs through school-based programming. The increased involvement of the educational system in the process of mental health intervention and treatment could dramatically influence the accessibility and utilization of services, and could result in substantial growth in the number of positive child outcomes.

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Center for Health and Health Care in Schools
http://www.healthinschools.org/home.asp

National Association of School Psychologists
4340 East West Highway, Suite 402 - Bethesda, MD 20814
Email: center@naspweb.org
http://www.nasponline.org

National Technical Assistance Center for Children's Mental Health
http://www.gucdc.georgetown.edu

School Mental Health Project
http://smhp.psych.ucla.edu

UCLA Center for Mental Health in Schools
Department of Psychology
P.O. Box 951563 - Los Angeles, CA 90095-1563
310-825-3634
E-mail: smhp@ucla.edu
http://smhp.psych.ucla.edu

University of Maryland
Center for School Mental Health Assistance
680 West Lexington St, 10th Floor - Baltimore, MD 21201
http://csmha.umaryland.edu

U.S. Office of Special Education Programs (OSEP)
Center on Positive Behavioral Interventions and Supports (PBIS)
http://www.PBIS.org

Virginia Resources

Joint Commission on Health Care. (2003). *Review of Emergency Medical and Mental Health Services in Public Schools.*

Parent Educational Advocacy Training Center (PEATC)
6320 Augusta Drive, Suite 1200 - Springfield, VA 22150
703-923-0010 or (VA only) 800-869-6782
Latino Outreach: 703-569-6200
Email: partners@peatc.org
http://www.peatc.org

Virginia Department of Education
Office of Special Education and Student Services
P.O. Box 2120 - Richmond, VA 23218-2120
804-225-2402
http://www.pen.k12.va.us/VDOE/sess

Virginia Department of Health
Division of Child & Adolescent Health
P.O. Box 2448 - Richmond, VA 23218
804-786-7367
http://www.vdh.state.va.us

Department of Mental Health, Mental Retardation and Substance Abuse Services
P.O. Box 1797 - Richmond, VA 23218
804-786-3921
http://www.dmhmrsas.virginia.gov

JUVENILE OFFENDERS

Introduction

The responsibility for children's mental health is dispersed across multiple systems: schools, primary care, the juvenile justice system, child welfare and substance abuse treatment (U.S. Department of Health and Human Services, 1999).

There is a high prevalence of mental health needs among juvenile offenders. Unfortunately, an increasing number of youth with mental health disorders continue to enter and remain involved in the juvenile justice system.

Background

It is estimated that 50 to 75 percent of incarcerated young offenders nationwide have a diagnosable mental health disorder. Moreover, while there are highly successful treatment methods which can rebuild families and provide intensive mental health services to young offenders with mental health problems, their availability is rare (Coalition for Juvenile Justice, 2000).

Estimates provided by both state and local juvenile justice facilities throughout the U.S. suggest that juvenile offenders have significant mental health treatment needs. A growing body of research suggests that many of these youth meet criteria for at least one mental disorder and that at least one of every five has what is considered to be a serious mental disorder, often coupled with a co-occurring substance use disorder (U.S. Department of Justice, 2004). A study by the Virginia Department of Juvenile Justice (DJJ) showed that more than 40 percent of males and almost 60 percent of females in detention homes were in need of mental health services; more than seven percent of males and more than 15 percent of females had urgent mental health treatment needs (Joint Commission for Behavioral Health Care, Virginia State Crime Commission and Virginia Commission on Youth, 2002).

Data compiled from multiple national studies reveal that the rate of particular mental health disorders is, on average, higher among youth in the juvenile justice population than in the general

population, as illustrated in Table 1. The most common psychiatric disorders seen among juvenile offenders are listed in Table 2.

Juveniles entering the justice arena typically manifest complex mental health and behavioral health needs. According to a national report released by the National Alliance for the Mentally Ill (NAMI), 36 percent of respondents to a nationwide survey of families having children with severe mental illnesses said that their children were in the juvenile justice system because of the unavailability of mental health care services (NAMI, 1999).

Table 1

Prevalence of Mental Disorders in the Juvenile Population and General Populations

Disorders	General Population (%)	Juvenile Justice Population (%)
Mood Disorders	5-9	10-88
Attention Deficit Hyperactivity Disorder	3-7	2-76
Learning Disorder	4-9	36-53
Mental Retardation	1	13
Posttraumatic Stress Disorder	6	5-49
Conduct Disorder	1-10	32-100
Psychotic Disorders	.05-5	1-16
Substance Abuse/Dependence	5.5-9	46-88

Source: American Psychiatric Association, 2000, as cited by Boesky, 2002.

Table 2

Most Common Psychiatric Disorders Seen Among Juvenile Offenders

Conduct Disorder	Attention Deficit Hyperactivity Disorder
Oppositional Defiant Disorder	Posttraumatic Stress Disorder
Major Depression	Mental Retardation
Dysthymic Disorder	Learning Disorders
Bipolar Disorder	Fetal Alcohol Syndrome

Source: Boesky, (2002).

Comorbid Disorders

As reported by the National Mental Health Association (NMHA), co-occurring disorders are a significant problem for youth in the nation's justice system (2004). It is estimated that about half of all adolescents receiving mental health services have co-occurring substance use disorders, and as many as 75 to 80 percent of adolescents receiving inpatient substance abuse treatment also have co-existing mental disorders (Greenbaum, Foster-Johnson & Petrila, as cited by the National Mental

Health Association). Co-occurring mental health and substance abuse problems place distinct demands upon treatment programs. Solutions for treating co-occurring disorders for youth in the justice system are complicated, particularly because adolescents often return to the peer, family, and community environments that supported and promoted their substance use.

Findings from Studies

The findings of a study by the Research & Training Center on Family Support and Children's Mental Health (2001) compare mental health needs and demographics among a sample of youth. These are based on data gathered on youth who were involved in the system but not confined, youth incarcerated for their crimes, as well as youth adjudicated to residential treatment. The study results indicate that children at risk for institutional placement are placed according to the primary type of dysfunction they evidence, with behaviorally-disordered children becoming incarcerated and emotionally-disordered children placed into the state mental health system. Other factors related to subsequent institutional placement included chronic school truancy, prior outpatient substance abuse or mental health treatment, and prior use of a firearm.

Youth within the juvenile justice system are at high risk for psychiatric conditions that may have contributed to the risk of offending or which may interfere with rehabilitation (Columbia University, 2002). Studies also reinforce a high need for mental health services and a lack of systematic assessment (Research & Training Center on Family Support and Children's Mental Health, 2001). Juvenile courts can have a positive mental health orientation and provide a foundation to build a stronger system of care collaboration and the establishment evidence-based practices in the juvenile justice system (Columbia University).

Evidence-Based Approaches

There are promising approaches in providing mental health services in the juvenile justice system. Heightened awareness of mental health disorders has led to increased research and new treatment practices. Among delinquent juveniles who receive structured, meaningful and sensitive treatment, recidivism rates are 25 percent lower than those in untreated, control groups. Highly successful programs reduce rates of re-offense by as much as 80 percent (Coalition for Juvenile Justice, 2000).

The National Center for Mental Health and Juvenile Justice (2002) has compiled information on best practices for treatment of juvenile offenders. These interventions incorporate several treatment components and are discussed in the following paragraphs. Although several of these treatment approaches may be applied and utilized in the institutional setting, the following discussion refers to the application of these approaches in the community setting.

Wraparound

The wraparound approach focus entails treating children with serious emotional problems and developing individualized, child-centered, family-focused, community-based, and culturally competent services (National Center for Mental Health and Juvenile Justice, 2002). The design is enhanced to promote programs that provide integrated service systems for youth with serious emotional problems operating across the mental health, juvenile justice, child welfare and education systems (Kamradt, as cited by the National Center for Mental Health and Juvenile Justice). Wraparound improves public safety while keeping youth in their family systems, close to home and community (Research & Training Center on Family Support and Children's Mental Health, 2001).

Research shows that, while implementing wraparound can be challenging, it is a promising practice in treating youth involved with the juvenile justice system. An example of a successful program is Wraparound Milwaukee in Milwaukee County, Wisconsin (NMHA, 2004). Preliminary evaluation data indicates that children served by this program have shown significant improvements.

Integrated Systems of Care

Integrated systems of care typically involve collaboration across a number of agencies such as juvenile justice and mental health, with the goal of developing coordinated plans for family-centered services, and building upon youth and family strengths.

Multisystemic Therapy

Multisystemic Therapy (MST) provides an integrative, cost effective, family-based treatment with focus on improving psychosocial functioning for youth and families so that the need for out-of-home placements is reduced or eliminated. MST addresses the numerous factors of serious antisocial behavior in juvenile delinquency. MST interventions focus on the individual child and their family, peers, school and neighborhood/community support (Henggeler, as cited by the National Center for Mental Health and Juvenile Justice, 2002).

The underlying premise of MST is that the behavioral problems of children and adolescents are maintained through problematic interactions within or between one or more of these systems. MST has an extensive body of research supporting its effectiveness with juvenile populations with emotional and behavioral problems. Evaluations have shown reductions up to 70 percent in long-term rates of re-arrest and reductions up to 64 percent in out-of-home placements along with improvements in family functioning and decreased mental health problems (NMHA, 2004).

Functional Family Therapy

Functional Family Therapy (FFT) is a family-based prevention and intervention program that combines and integrates established clinical therapy, empirically supported principles, and extensive clinical experience. This model allows for intervention in complex problems through clinical practice that is flexibly structured, culturally sensitive and accountable to families (Sexton and Alexander, as cited by the National Center for Mental Health and Juvenile Justice, 2002).

FFT focuses on the delinquency problem and seeks to reduce it by identifying obtainable changes (NMHA, 2004). A research study indicates that, after a year, youth who participated in FFT had a re-arrest rate of approximately 25 percent, versus 45 to 70 percent for youth who did not (NMHA).

Cognitive Behavioral Therapy

Cognitive Behavioral Therapy is based on the idea that thoughts, beliefs and attitudes determine emotion and behavior. It is an excessively instructive approach that involves teaching youth about the thought-behavior link and working with them to modify their thinking patterns in a way that will lead to more adaptive behavior in challenging situations. This approach is especially beneficial for youth in the juvenile justice system because it is very structured and focuses on the triggers for disruptive or aggressive behavior (NMHA, as cited by the National Center for Mental Health and Juvenile Justice, 2002). Cognitive Behavioral Therapy addresses poor interpersonal and problem-

solving skills in teaching participants social skills, coping, anger management, self-control, or social responsibility (NMHA, 2004).

Multidimensional Treatment Foster Care

Multidimensional Treatment Foster Care recruits, trains and supervises foster families to provide youth with close supervision, fair and consistent limits and consequences and a supportive relationship with an adult (National Center for Mental Health and Juvenile Justice, 2002). As an alternative to corrections, it places juvenile offenders who require residential treatment with these carefully trained foster families. It promotes both rehabilitation and public safety (Chamberlain, 1998). During the placement timeframe, the youth's biological or adoptive family is also receiving family therapy to further the goal of returning the youth to that family (National Mental Health Association, 2004).

Components of Effective Treatment for Youth in the Juvenile Justice System

According to the Coalition for Juvenile Justice (2000), there are nine components of effective treatment for juvenile offenders:

- Highly structured, intensive programs focusing on changing specific behaviors;
- Development of basic social skills;
- Individual counseling that directly addresses behavior, attitudes and perceptions;
- Sensitivity to a youth's race, culture, gender and sexual orientation;
- Family member involvement in the treatment and rehabilitation of children;
- Community-based, rather than institution-based treatment;
- Services, support and supervision that "wrap around" a child and family in an individualized way;
- Recognition that youth think and feel differently than adults, especially under streets; and
- Strong Aftercare Treatment.

Incarcerated Juveniles

The juvenile justice system has long been used as a secure setting for juveniles with a variety of mental health issues and disorders. Youth with severe emotional disorders often continually get in trouble and end up being incarcerated for their own or society's protection. According to Dennis Waite, Ph.D., Director of Psychological Services, Virginia Department of Juvenile Justice (Personal Communication, October 29, 2002), these juveniles quite often must receive treatment in an institutional setting because their treatment needs were not addressed earlier. Approximately three to four percent of all juveniles who come before the court for criminal behavior will be incarcerated due to the seriousness of their crimes or the chronic nature of their behavior (Personal Communication, Dennis Waite, Ph.D.).

The juvenile justice system is the "last stop" for juveniles with mental health disorder, especially when they are seen as untreatable or if appropriate mental health services have not been available or accessed (Boesky, 2002). The institutional setting offers effective mental health interventions based on the treatment needs for the child. It is important to note that many juvenile justice facilities have managed their youth with mental health disorders so well that they need not rely upon community-based mental health agencies (Boesky).

In 2003, the United States House of Representatives Committee on Government Reform Special Investigations Division conducted a survey of every juvenile detention facility in the United States. This survey was to ascertain what occurs when community mental health services are not readily available. The survey revealed that two-thirds of the juvenile detention facilities responding to the survey house youth waiting for community mental health services (U.S. House of Representatives Committee on Government Reform Special Investigations Division, 2004).

Conclusion

Community agencies such as social services, public school divisions, and juvenile justice frequently serve youth with untreated or under-treated mental health problems. The juvenile justice system serves those youth whose behavior or actions bring them under the purview of the court. The juvenile justice system can neither select its service population nor refuse to accept a child based on his mental health diagnosis (Boesky, 2002). Although juvenile offenders with mental health disorders are a challenging population, promising intervention strategies do exist. However, it is important to remember that, although the juvenile justice system should respond to the mental health needs of children in its care, the juvenile justice system cannot supplant the mental health system (Boesky).

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Schindler, M. (March/April 1999). "Mental Health Issues Facing Adolescents: Part II." AACAP News.

Additional Resources/Organizations

Cognitive Behavioral Therapy
http://www.cognitivetherapy.com/index.html

Functional Family Therapy Online
Holly DeMaranville, FFT Communications Coordinator
206-369-5894 or Email: hollyfft@comcast.net
http://www.fftinc.com/contact.php

Licensed Functional Family Therapy Programs in Virginia:
York County Department of Community Services
Juvenile Services Division - Functional Family Therapy
224 Ballard Street - Yorktown, VA 23690-0532
Email: stumpl@yorkcounty.gov
757-564-2487

Loudoun County Dept. of Mental Health, Mental Retardation and Substance Abuse Services
Functional Family Therapy
102 Heritage Way, Suite 302 - Leesburg, VA 20176
703-771-5239

Multidimensional Treatment Foster Care
http://www.mtfc.com

Multisystemic Therapy Services
710 J. Dodds Blvd. - Mt. Pleasant, SC 29464
843-856-8226
Email: marshall.swenson@mstservices.com

Licensed Multisystemic Therapy Programs in Virginia
Central Virginia Community Services
2241 Langhorne Rd. - Lynchburg 24501
434-847-8050 or TTD 434-847-8062
http://www.cvcsb.org

Henrico Area Mental Health and Retardation Services
10299 Woodman Road - Glen Allen 23060
804-261-8585 or TTD 261-8484
http://www.co.henrico.va.us/mhmr

Virginia Beach Community Services Board
297 Independence Boulevard Pembroke Six, Suite 208 - Virginia Beach, VA 23462
757-437-6100 or TTD 757-437-6157

ANTIDEPRESSANTS AND THE RISK OF SUICIDAL BEHAVIOR

Introduction

As discussed in the Introduction, the prevalence of mental illness in children and adolescents is considerable. Research has indicated that early identification and comprehensive treatment of mental health disorders can significantly improve the prognosis for children. Research studies and clinical trials are being conducted to ascertain which treatments are the most successful in treating children and adolescents with mental health disorders. Many of these are outlined in the *Collection* and are highlighted in the *Collection*'s "Reference Chart of Disorders and Evidence-based Treatments". These evidence-based treatment modalities include cognitive-behavioral therapy, family therapy, group therapy, and pharmacological approaches, including the use of antidepressants. One major research finding, as indicated in previous studies, is that a combination of psychotherapy and antidepressant medication has been the most efficacious in treating depression in children and adolescents (March, Silva, Petrycki, as cited by Lock et al., 2005). Moreover, additional findings have revealed that antidepressant medication may have almost as much benefit as other treatments combined (March, Silva, Petrycki, as cited by Lock et al.).

While there are several different types of medications used for treating mental health disorders in children, this section will concentrate on the use of antidepressant medications by children and adolescents, as well as information both caregivers and clinicians need to know regarding the use of these medications.

Increases in the Use of Psychotropic Medications

In recent years, research has been conducted to review the patterns and effects of psychotropic medication use by children and adolescents. One such study conducted in the United States showed that the overall rate of psychotropic medication use by children has increased significantly in recent decades (Olfson, Marcus, Weissman, & Jensen, 2002). Significant increases were found in the rate of stimulant use, antidepressant use, other psychotropic medications, and coprescription of different classes of medication, especially antidepressants and stimulants (Olfson, Marcus, Weissman, & Jensen). The common types of medications used for treating mental disorders are outlined in Table 1.

Table 1

Common Types of Psychotropic Medications

Stimulants are often used as part of treatment for attention deficit hyperactivity disorder (ADHD).

Antidepressants are used in the treatment of depression, school phobias, panic attacks, and other anxiety disorders, bed wetting, eating disorders, obsessive compulsive disorder, personality disorders, post-traumatic stress disorder, and ADHD. There are several types-tricyclics (TCAs), selective serotonin reuptake inhibitors (SSRIs), monoamine oxidase inhibitors (MAOIs), and atypical.

Antipsychotics can help control psychotic symptoms (delusions or hallucinations) or disorganized thinking. They may also help muscle twitches or verbal outbursts. Occasionally, they may be used to treat severe anxiety and may help reduce very aggressive behavior.

Mood Stabilizers and **Anticonvulsants** may help treat manic-depressive episodes, mood swings, aggressive behavior, impulse-control disorders and severe mood symptoms in schizophrenia.

Anti-anxiety medications can help treat severe anxiety. There are several types of anti-anxiety medications, including benzodiazepines, antihistamines, and atypicals.

Source: American Academy of Child and Adolescent Psychiatry, Psychiatric Medication for Children and Adolescents Part II: Types of Medications, 2000.

Antidepressant use has rapidly increased among adolescents, with use among very young children increasing at even faster rates (Delate, as cited by DeNoon, 2004). Recent analysis from pharmacy benefit management databases, as outlined by DeNoon for WebMD, reveals the following:

- Overall, child antidepressant use increased by 9.2% each year from 1998 to 2002.
- Antidepressant prescriptions are increasing faster for girls than for boys.
- Serotonin-specific reuptake inhibitors are more commonly prescribed for child patients than other antidepressants.
- Data shows doctors prescribe antidepressants more for depression than for anxiety disorders.

Source: Delate, as cited by DeNoon, 2004.

There are differing opinions about the increased use of antidepressants in children and adolescents, as discussed by Delate (DeNoon, 2004). One view is that antidepressants are being prescribed to youth without adequate information about their safety and efficacy in this population. A second viewpoint asserts that rigorous efforts in recent years to identify and aggressively treat depression in children and adolescents have caused this increase in the use of these medications (DeNoon). Both perspectives point toward the need for greater study and analysis regarding the usage of antidepressants among children and adolescents.

Food and Drug Administration Advisory Statement

In September 2004, the U.S. Food and Drug Administration (FDA) released a statement based on the recommendations of the Psychopharmacologic Drugs and Pediatric Advisory Committees regarding antidepressant use in pediatric patients (Wolf, 2005). The advisory committees concluded that there was an increased risk of suicidality in pediatric patients for all antidepressants in controlled pediatric antidepressant trials. In response to this concern, the FDA directed manufacturers to add a black-box warning to the health professional label on antidepressants to describe the increased risk of suicidal thoughts and behavior in children and adolescents.

The FDA determined that the following points were to be included on the boxed warning:

- Antidepressants increase the risk of suicidal thinking and behavior (suicidality) in children and adolescents with Major Depressive Disorder (MDD) and other psychiatric disorders.
- Anyone considering the use of an antidepressant in a child or adolescent for any clinical use must balance the risk of increased suicidality with the clinical need.
- Patients who are started on therapy should be observed closely for clinical worsening, suicidality, or unusual changes in behavior.
- Families and caregivers should be advised to closely observe the patient and to communicate with the prescriber.
- A statement regarding whether the particular drug is approved for any pediatric indication(s) and, if so, which one(s).

Source: U.S. Food and Drug Administration Public Health Advisory on Suicidality in Children and Adolescents Being Treated With Antidepressant Medications, 2004.

The FDA warning instructs clinicians prescribing antidepressants to children to inform parents and custodial adults of the black-box warning about the increased risk of suicidality. While an advisory statement was issued, the advisory committees did have a split decision (15 yes, 8 no) regarding recommendations for a black-box warning for the increased risk of suicidality (Wolf). In response to this, some practitioners have ceased prescribing antidepressants to children and have begun to refer patients to child and adolescent psychiatrics (Virginia Joint Commission on Health Care, 2005).

Study Activities on Antidepressants and Suicidality

In response to the FDA's advisory statement, a study was conducted by researchers at the Injury Control Research Center at Harvard School of Public Health. The study revealed that 11 percent of 123 youth suicide completers and 21 percent of 2,674 adults who died by suicide tested positive for the presence of an antidepressant (Jancin, 2005). This study effort was conducted by obtaining data from the Centers for Disease Control and Prevention's National Violent Death Reporting System. The findings from this study indicated that study subjects' sensitivity of toxicology tests may be low; that patients who committed suicide may have received psychotherapy without medication; or that the progress of these patients was not being carefully monitored (Jancin). Patient compliance to treatment and the need for improved case management were two findings cited in this study that must also be considered for evaluating patients risk for suicide (Jancin).

Responses to FDA Advisory

The American Medical Association (AMA) Council on Scientific Affairs responded to the FDA advisory by conducting a separate analysis and issued a statement to address the concerns raised by

the FDA. Based on their preliminary analysis, the AMA asserted that antidepressants could be advantageous in treatment of depression in pediatric patients, but indicated that longer-term studies were needed to better address safety concerns (AMA, 2005). They requested the FDA to evaluate the black box warning's impact on treatment patterns, patient compliance and patient access to the drugs.

According to the New York State Office of Mental Health, researchers are currently analyzing all available information in order to provide families and clinicians with the most current information (2004). However, they caution that the risks associated with not treating depression must be considered in all future activity. Failure or refusal to treat significant psychiatric disorder in children and adolescents, which may include reluctance to utilize medications, is a cause for concern (New York State Office of Mental Health).

Since the issuance of the advisory statement, antidepressant use among children declined by approximately 10 percent (Reuters Health Information, 2005). This occurrence was noted in the final quarter of 2004 by various pharmacy benefit firms (Reuters Health Information).

Implications for Families

According to the New York State Office of Mental Health, families and physicians must carefully monitor a child for any behavioral changes if they are taking antidepressants (2004). The New York State Office of Mental Health has informed parents that, in most instances, the increased risk of suicidal behavior occurs during the first 4 to 6 weeks of treatment. Families must have careful dialogue with their child's physician if their child is being prescribed antidepressant medications. Discussion should include the possible benefits, as well as the possible risks, including increased suicidal behavior (New York State Office of Mental Health). Caregivers should proceed with caution if their child or adolescent is taking antidepressants. Table 2 outlines activities parents must engage in while their child or adolescent is taking antidepressants.

Cultural Considerations

The following observations are taken from a study conducted by Olfson, Marcus, Weissman, & Jensen (2002). The authors of this study noted that the increase in the use of psychotropic medication has been observed in all age, racial/ethnic, geographic, gender and insurance groups. While there has been an overall increase in antidepressant use in all children and adolescents, African-American children are somewhat less likely than Caucasian children to receive stimulants and antidepressants. This is despite lack of evidence supporting racial differences in prevalence of ADHD or childhood depression. Thus, the authors of this study note that the source of racial and ethnic disparities in the prescribing of medication to treat mental disorders requires further study. The absence of independent diagnostic data prevents the authors of this study from evaluating the quality of the prescribing practices. Moreover, further study must also address medication usage in the treatment of nonpsychiatric disorders. The practice of combining psychotropic medications from several classes also warrants further research for better understanding of the significance of this trend.

Table 2

What a Parent/Caregiver Needs to Know about their Child and Antidepressant Use

- Be clear and honest when talking with your child about the possible risks and benefits of taking an antidepressant medication.
- Talk to your child or adolescent about whether they are having any suicidal thoughts, and let them know they should come to you immediately if they start having suicidal thoughts or any other troubling symptoms while they are taking antidepressant medication.
- Working with your child and your child's physician, you should develop a "safety/crisis plan" for your child. This can include identifying an adult your child can call if he/she is thinking about suicide.
- You and your child's physician should closely monitor your child - especially during the first months of treatment. Any child or adolescent starting an antidepressant medication should be followed weekly (in person or by telephone) for the first month, every other week (preferably in person) for the second month, and at least once a month (in person) thereafter by the treating physician to check for the severity of depressive symptoms, suicidal behavior and any other problems.
- It is important that you do not suddenly stop or change the dose of your child's antidepressant medication without first talking to your child's physician.

Source: New York State Office of Mental Health, 2004.

Table 3

What Families Should Look for When Monitoring A Child on an Antidepressant Medication

- Watch for any behaviors or symptoms/complaints that appear in your child for the first time, seem worse, or worry you or your child.
- Watch for any suicidal symptoms in your child - such as ideas of hurting oneself, thoughts or threats of committing suicide or any self-harming behaviors or suicide attempts.
- Watch for signs of new or increased depressed mood or anxiety (including nervousness, panic attacks) in your child.
- Also, watch for any of the following symptoms that may appear in your child: insomnia, irritability, hostility, aggressiveness, and impulsivity.
- If any of these behaviors or symptoms appear, you should immediately contact your child's physician for guidance.

Source: New York State of Mental Health, 2004.

Conclusion

Controversy regarding the use of antidepressants in children and adolescents continues. As stated above, there is a need for further study of antidepressant use in children and adolescents to address the concerns outlined in the FDA advisory. The AMA has asserted that its review of various studies supports the view that antidepressants reduce suicidal behavior and completed suicide attempts overall (2005). The organization does acknowledge, however, that the risk of such behavior appears to be highest during the initial course of drug therapy. Its position is that antidepressants should continue to be available, with their use guided by sensible clinical judgment (AMA). The analysis and decision regarding the specific treatment of a particular child or adolescent patient must ultimately address all the circumstances and symptoms that are present in

the patient, as well as their family supports and the diagnostic and treatment resources available to both families and clinicians (AMA). A guide for families regarding the monitoring of these medications is included in Table 3.

Sources

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American Medical Association. (2005). Safety and Efficacy of SSRIs in Children and Adolescents (A-05). *Council on Scientific Affairs.* [Online]. Available: http://www.ama-assn.org/ama/pub/category/15186.html. [July 2005].

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New York State Office of Mental Health. (2004). OMH Letter to Facilities and Programs Concerning Antidepressant Use in Children and Adolescents. [Online]. Available: http://www.omh.state.ny.us/omhweb/advisories/parentltr.htm. [July 2005].

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Reuters Health Information. (2005). U.S. Youth Antidepressant Use Drops in 2004-Report. [Online]. Available: http://www.medscape.com/viewarticle/498607_print. [February 2005]. *Not Available July 2005.*

U.S. Food and Drug Administration. (2004). FDA Public Health Advisory: Suicidality in Children and Adolescents Being Treated with Antidepressant Medications. [Online]. Available: http://www.fda.gov/cder/drug/antidepressants/SSRIPHA200410.htm. [July 2005].

Virginia Joint Commission on Health Care. (2005). Decision Matrix.

Wolf, D. (2005). Suicidality Following Black-Box Warning - Letters to the Editor. *Journal of the American Academy of Child and Adolescent Psychiatry.* 44:5, P. 405.

Additional Resources

American Academy of Child and Adolescent Psychiatry (AACAP)
Children and Psychiatric Medications
http://www.aacap.org/publications/childMed

Cuffe, S. (2004). Do Antidepressants Increase the Risk of Suicide in Children and Adolescents? American Academy of Child and Adolescent Psychiatry DevelopMentor.
http://www.aacap.org/training/DevelopMentor/Content/2004Fall/f2004_a2.cfm

March, J., Silva, S., Petrycki, S., & the Treatment for Adolescents with Depression Study (TADS) Team. (2004). Fluoxetine, cognitive behavioral therapy, and a combination for adolescents with depression: Treatment for adolescents with depression study (TADS) randomized controlled trial. *Journal of the American Medical Association.* 292:807-820.

MayoClinic.com
Children and Antidepressants: Sorting through the Warnings
http://www.mayoclinic.com/invoke.cfm?id=MH00059

National Institute of Mental Health (NIMH)
Report on the treatment of children with mental/emotional disorders; includes sections on medications and other treatments; info on commonly prescribed psychotropic medications, side effects, and the approved ages for prescriptions.
http://www.nimh.nih.gov/publicat/childqa.cfm

National Mental Health Association
Antidepressant Medication and Children: Tips for Parents
http://www.nmha.org/infoctr/factsheets/antidepressantsChildrenTips.cfm

New York University Child Study Center
Guide to Psychiatric Medications for Children and Adolescents
http://www.aboutourkids.org/aboutour/articles/guidetopsychmeds.html

ParentsMedGuide
The Use of Medication in Treating Childhood and Adolescent Depression: Information for Patients and Families
http://www.parentsmedguide.org/parentsmedguide.htm

U.S. States Food and Drug Administration
Proposed Medication Guide to Using Antidepressants in Children or Teenagers
http://www.fda.gov/cder/drug/antidepressants/SSRIMedicationGuide.htm

Organizations

American Academy of Child & Adolescent Psychiatry (AACAP)
3615 Wisconsin Avenue, N.W. - Washington, DC 20016-3007
202-966-7300
http://www.aacap.org

American Academy of Pediatrics (AAP)
141 Northwest Point Blvd. - Elk Grove Village, IL 60007-1098
847-434-4000
http://www.aap.org

American Counseling Association
5999 Stevenson Avenue - Alexandria, VA 22304-3300
800-347-6647; TDD 703-823-6862
http://www.counseling.org

American Psychological Association (APA)
750 First Street, N.E. - Washington, DC 20002-4242
800-374-2721
http://www.apa.org

Center for Healthier Children, Families, and Communities
1100 Glendon Ave., Suite 850 - Los Angeles, CA 90024
310-794-2583
http://healthychild.ucla.edu

The Child Trauma Academy
5161 San Felipe, Suite 320 - Houston, TX 77056
713-818-3967
http://www.childtrauma.org

National Institute of Mental Health (NIMH)
Treatment of Children with Mental Disorders
6001 Executive Blvd. - Room 8184, MSC 9663 - Bethesda, MD 20892-9663
301-443-4513
http://www.nimh.nih.gov

National Mental Health Association (NMHA)
1021 Prince Street - Alexandria, VA 22314-2971
800-969-NMHA (6642)
http://www.nmha.org

General Description of Providers

See also "Providers Licensed in Virginia."

Psychiatrist
A physician who has attended medical school and completed a four-year residency training program in psychiatry, and is licensed by a state medical board. A psychiatrist is able to prescribe medications and specializes in mental health treatment.

Child Psychiatrist
A psychiatrist who is specially trained and qualified to treat infants, children, adolescents, and adults as individuals, couples, families, and groups. A child psychiatrist practices in a variety of settings, including offices, on the staffs of hospitals, clinics, health management organizations (HMOs), and government agencies' residential treatment settings.

Psychologist
A mental health professional with an advanced degree in psychology. A psychologist offers mental health assessment and therapy, but is unable to prescribe medications.

Child Psychologist
A licensed psychologist who specializes in providing psychological services to infants, toddlers, children, and adolescents. A child psychologist is specifically trained to diagnose and treat the psychological, cognitive, emotional, developmental, behavioral, and family problems of children.

Primary Care Physician
A physician, such as a family physician or internist, who has attended medical school, is licensed by a medical board, and is able to prescribe medications. Although a primary care physician is trained to spot mental health problems and often prescribe medications, the primary care physician does not specialize in mental health treatment.

Pediatrician
A primary care physician who focuses on the care of children from birth to 21 years of age and who specializes in preventive health maintenance for healthy children and medical care for those who are seriously or chronically ill. Pediatricians are also increasingly involved with the prevention, early detection, and management of behavioral, developmental, and functional social problems that affect children and adolescents.

Psychiatric Clinical Nurse Specialist
A registered nurse with a master's degree in psychiatric mental health nursing who is licensed by the state to provide care, counseling, and therapy to persons with psychological, emotional and behavioral needs. An accreditation as an Advanced Practicing Registered Nurse (APRN) by an appropriate credentialing body is necessary for this provider to receive third party reimbursement.

Physician Assistant
A professional who is licensed to practice under the supervision of a physician and who may perform physical examinations, diagnose illnesses, and, in most states, write prescriptions. The education program required for licensure is shorter in duration than medical school.

Nurse Practitioner
A nurse who has completed advanced training and who may perform physical examinations, take medical histories, and prescribe certain medications.

Clinical Nurse Specialist
A nurse who has had formal clinical preparation resulting in a master's degree. A clinical nurse specialist manages, supports, and coordinates the care of acutely and critically ill patients with episodic illness or acute exacerbation of chronic illness.

Occupational Therapist
A professional who has received training in helping people recover and gain or regain skills for entering the workforce.

Licensed Clinical Social Worker (LCSW)
A professional who has earned a degree in social work, has been licensed to provide counseling/therapy to individuals with emotional, psychological, and/or behavioral needs, and meets state requirements. Professional social workers practice in many settings, including family service agencies, community mental health centers, hospitals, and public and private agencies. Professional social workers are the nation's largest group of mental health service providers.

Licensed Professional Counselor (LPC)
A professional with a master's (M.A. or M.S.) or doctoral degree who has been licensed to provide counseling to individuals with psychological, emotional, and behavioral needs. The LPC can be found in private practice, counseling centers, group practices, family service centers, health maintenance organizations (HMOs), hospitals, and government agencies.

Source: National Mental Health Consumers' Self-Help Clearinghouse, Technical Assistance Guide Systems Advocacy. [Online]. Available at: http://www.mhselfhelp.org/pubs/systems.html. *Not available as of July 2005.*

PROVIDERS LICENSED IN VIRGINIA

Mental Health professionals in Virginia are regulated by:

- the Board of Counseling or
- the Board of Psychology or
- the Board of Medicine or
- the Board of Social Work or
- the Board of Nursing.

Professionals regulated by the Board of Counseling

Certified Substance Abuse Counselors (CSAC)

Professionals who are certified to perform the substance abuse treatment functions, which generally include screening, intake, orientation, assessment, recovery and relapse prevention planning, substance abuse treatment, and case management. However, these activities must be conducted under the supervision of a degree-licensed substance abuse treatment practitioner. CSACs may also be responsible for supervising certified substance abuse counseling assistants.

Type of degree held: B.A., along with additional coursework and supervised experience in substance abuse treatment.

Where they can be found: Inpatient substance abuse treatment centers, community services boards, private outpatient mental health, and substance abuse clinics.

Certified Substance Abuse Counseling Assistants

Professionals who are certified to perform the substance abuse treatment functions of orientation, implementation of substance abuse treatment plans, case management, substance abuse or dependence crisis intervention, record keeping, and consultation with other professionals. Certified substance abuse counseling assistants may participate in recovery group discussions, but cannot engage in counseling with either individuals or groups or engage in independent or autonomous practice. They act under the supervision of a licensed substance abuse treatment practitioner or a CSAC.

Type of degree held: High school diploma or equivalent, along with additional coursework and supervised experience in substance abuse treatment.

Where they can be found: Inpatient substance abuse treatment centers, community services boards, private outpatient mental health, and substance abuse clinics.

Licensed Professional Counselors (LPC)

This is a specific legal license that a psychotherapist, usually at the master's level of training, can get. Educational and experiential standards to achieve the LPC license are lower than the requirements for Psychologist or Psychiatrist licensure. Not all counselors are LPCs.

Type of degree held: M.A. or M.S., along with coursework and a supervised residency in counseling and psychotherapy.

Where they can be found: Residential treatment centers, community services boards, private outpatient mental health and substance abuse clinics.

Licensed Substance Abuse Treatment Practitioners
Professionals who are licensed to provide advanced substance abuse treatment and independent, direct and unsupervised treatment to such individuals or groups of individuals, and to plan, evaluate, supervise, and direct substance abuse treatment provided by others.

Type of degree held: M.A. or M.S., along with additional coursework and a supervised residency in substance abuse treatment.

Where they can be found: Inpatient substance abuse treatment centers, community services boards, private outpatient mental health, and substance abuse clinics.

Marriage and Family Therapists
Persons trained in the assessment and treatment of cognitive, affective, or behavioral, mental and emotional disorders within the context of marriage and family systems through the application of therapeutic and family systems theories and techniques.

Type of degree held: M.A. or M.S., additional coursework and a supervised residency in marriage and family counseling.

Where they can be found: Community services boards, private outpatient mental health and substance abuse clinics.

Certified Sex Offender Treatment Providers
These are psychologists who specialize in providing sex offender treatment services.

Type of degree held: M.A., Ph.D., Psy.D., M.D., with additional coursework and supervision in sex offender treatment.

Where they can be found: Residential treatment centers, therapeutic group homes, community services boards, private outpatient mental health clinics.

Clinical Psychologists
These are psychologists who specialize in the practice of psychotherapy in individual, family, marital, and group settings.

Type of degree held – Ph.D., Psy.D.

Where they can be found: Psychiatric hospitals, residential treatment centers, community services boards, private outpatient mental health and substance abuse clinics, private practice.

School Psychologists
These are psychologists who are specifically licensed to practice in a school setting.

Type of degree held: M.A. with an endorsement in psychology.

Where they can be found: Public and private schools, special education residential schools, special education day schools, therapeutic day treatment centers.

Professionals regulated by the Board of Medicine
Psychiatrist – These are medical doctors or physicians. Psychiatrists are experts in the use of medications to treat mental disorders and also experts in the diagnosis and treatment of mental illnesses.

Type of degree held: M.D., as well as completion of a multi-year residency in psychiatry (treatment of mental illness), usually in a hospital setting and under supervision of senior psychiatrists.

Where they can be found: Hospitals (regular and psychiatric), community services boards, private outpatient mental health clinics, private practice.

Professionals regulated by the Board of Social Work

Licensed Clinical Social Worker (LCSW)

These are social workers who, by education and experience, are professionally qualified at the autonomous practice level to provide direct diagnostic, preventive and treatment services that may include psychotherapy and counseling for mental disorders, substance abuse, marriage and family dysfunction, and problems caused by social and psychological stress or health impairment.

Type of degree held: M.S.W. or D.S.W., along with supervised experience in a treatment setting.

Where they can be found: Local social service agencies, hospitals (both regular and psychiatric), residential treatment centers, group homes, community services boards, private outpatient mental health and substance abuse clinics.

Licensed Social Workers

These are persons who are trained to provide diagnostic, preventive and treatment services, but on a supervised rather than independent basis.

Type of degree held: B.A. or M.S.W., along with supervised experience in a treatment setting.

Where they can be found: Local social service agencies, hospitals (both regular and psychiatric), residential treatment centers, group homes, community services boards, private outpatient mental health and substance abuse clinics.

Professionals Regulated by the Board of Nursing

Psychiatric Clinical Nurse Specialist

A registered nurse with a master's degree in psychiatric mental health nursing who is licensed by the state to provide care, counseling, and therapy to persons with psychological, emotional and behavioral needs. An accreditation as an Advanced Practicing Registered Nurse (APRN) by an appropriate credentialing body is necessary for this provider to receive third party reimbursement.

Type of degree held: R.N. and Master's Degree in Psychiatric/Mental Health Nursing

Where they can be found: Psychiatric hospitals, community services boards, private outpatient mental health clinics and private practice.

FREQUENTLY-USED TERMS IN VIRGINIA'S MENTAL HEALTH DELIVERY SYSTEM

504 Plan – An individualized plan developed for a student with a disability that specifies what accommodations and/or services they will get in school to "level the playing field" so that they may derive as much benefit from their public educational program as their nondisabled peers. The plan follows from the requirements of Section 504 of the Rehabilitation Act of 1973, and also applies to extracurricular activities and non-student situations such as employment. Section 504 applies to all public entities receiving federal monies or federal financial assistance.

Acute – Refers to an intense illness or affliction of abrupt onset.

Adjustment Disorder – A disorder which occurs when a child experiences emotional and behavioral symptoms of depression and/or anxiety that is clearly in response to an identifiable stressor or stressors. The diagnosis of Adjustment Disorder is most appropriate when the child is experiencing distress above the normal amount that might be expected in response to stressor(s) and/or when the stressor(s) cause school grades to drop or impede daily activities. *See "Adjustment Disorders" section.*

Advanced Practice Registered Nurse (APRN) – A registered nurse who has earned either a master's or doctoral degree in order to specialize in psychiatric nursing. An APRN can provide the full range of psychiatric care services to individuals, families, groups and communities, function as psychotherapists, and in most states they have the authority to prescribe medications. Psychiatric-mental health nurses in advanced practice are qualified to practice independently. Some APRNs practice consultation/liaison nursing, delivering direct mental health services to physically ill patients or consultation to staff in general medical settings.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Age Appropriate – At the right level for the chronological (actual) age of the child.

Anxiolytic – Any drug used in the treatment of anxiety.

Anxiety Disorder – Disorder characterized by worries or fears that become exacerbated to the point of causing significant impairment in the child's functioning. When their fears do not fade and begin to interfere with the child or adolescent's daily life and activities, an anxiety disorder may be present, and parents should promptly seek the evaluation of their child or teen by a physician. *See "Anxiety Disorders" section.*

Anorexia Nervosa – Eating disorder characterized by low body weight (less than 85 percent of normal weight for height and age), a distorted body image, and an intense fear of gaining weight. *See "Maladaptive Behaviors, Eating Disorders" section.*

Anti-depressants – Medications used in the treatment of depression, as well as other psychiatric disorders.

Antipsychotics – Medications commonly used in medical and psychiatric practices to treat positive psychotic symptoms (e.g., hallucinations, bizarre behavior, delusions) regardless of diagnostic category. There are two classes of antipsychotics: typical antipsychotics (neuroleptics) and newer agents' atypical antipsychotics (e.g., risperdone and clzapine) with fewer side effects.

Asperger's Disorder – Pervasive developmental disorder similar to autism that typically manifests in childhood and characterized by social impairments (which may include poor body language and eye contact skills, failure to develop peer relationships, lack of spontaneous sharing of experience, lack of reciprocity) and the presence of repetitive behavior and interest patterns. *See "Pervasive Developmental Disorders" section.*

Assessment – A professional review of the child and family's needs conducted when they first seek services from a caregiver. It typically includes a review of physical and mental health, intelligence, school performance, family situation, and behavior in the community. The assessment identifies the strengths of the child and family. Together, the caregiver and family decide what kind of treatment and supports, if any, are needed.

Assistive Technology – Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, which is used to increase, maintain, or improve the functional capabilities of children with disabilities.

Attention Deficit Hyperactivity Disorder (ADHD) – Behavior disorder, usually first diagnosed in childhood that is characterized by inattention, impulsivity and, in some cases, hyperactivity. *See "Behavior Disorders, Attention Deficit Hyperactivity Disorder" section.*

At Risk of Serious Emotional Disturbance (SED) – Children aged birth through seven are considered at risk of developing serious emotional disturbances if they meet at least one of the following criteria:

a. The child exhibits behavior or maturity which is significantly different from most children of that age and which is not primarily the result of developmental disabilities or mental retardation; or

b. Parents, or persons responsible for the child's care, have predisposing factors themselves that could result in the child developing serious emotional or behavioral problems (e.g., inadequate parenting skills, substance abuse, mental illness, or other emotional difficulties); or

c. The child has experienced physical or psychological stressors that have put him or her at risk for serious emotional or behavioral problems (e.g., living in poverty, parental neglect, physical or emotional abuse).

See also "Serious Emotional Disturbance" definition.

Autism – Severely incapacitating lifelong developmental disability that typically appears during the first three years of life. A child with autism appears to live in his/her own world, showing little interest in others, and a lack of social awareness. Autistic children often have problems in

communication, avoid eye contact, and may show limited attachment to others. No known factors in the psychological environment of a child have been shown to cause autism. *See "Pervasive Developmental Disorders" section.*

Behavior Therapy – A form of psychotherapy in which a therapist analyzes a person's problematic behavior in terms of what reinforces or punishes that behavior. The behavioral therapist will systematically alter the reinforcers or punishers to get the person to change their behaviors. Behavior therapy has been adapted over the years to create Cognitive Behavior Therapy, which looks at the role of both thinking (cognition) and behavior in the context of human problems.

Behavior Intervention Plan (BIP) – A formalized plan that targets specific behaviors for alteration and that follows a functional behavioral assessment. Usually appended to a student's individualized educational plan, a public school must attempt such a plan before changing a student's placement to a more restrictive environment (unless there is an emergency situation). The plan is supposed to be based on positive inducements, if possible. A behavior intervention plan should also include the environmental or proactive changes the staff will make to decrease the likelihood of the undesirable behavior or symptom.

Behavioral Health Authorities (BHAs) – Agencies functioning in the same capacity and operating under the same requirements as community services boards.

Beta-blocker – Agent inhibiting the action of beta-adrenergic receptors, which modulate cardiac functions, respiratory functions, and the dilation of blood vessels. Beta-blockers are of value in the treatment of hypertension, cardiac arrhythmias, and migraine. In psychiatry, they are used in the treatment of aggression and violence, anxiety-related tremors and lithium-induced tremors, social phobias, panic states, and alcohol withdrawal.

Binge Eating Disorder – Disorder resembling bulimia nervosa and which is characterized by episodes of uncontrolled eating (or bingeing). It differs from bulimia, however, in that its sufferers do not purge their bodies of the excess food, via vomiting, laxative abuse, or diuretic abuse. *See "Maladaptive Behaviors, Eating Disorders" section.*

Biofeedback – A technique for controlling bodily functions usually thought to be involuntary (not under conscious control). The procedure utilizes electronic equipment to monitor continuously some feature of physiological response (e.g., heart rate, breathing, or muscle tension) and convert the measurements into signals which a person can easily perceive.

Bipolar Disorder – A mood disorder causing a child's moods to swing between states of depression (low mood and energy) and mania (heightened elevated, ecstatic mood and energy). *See "Mood Disorders" section.*

Body Image – One's sense of the self and one's body.

Bulimia Nervosa –Pattern of behavior in which the individual eats excessive quantities of food and then purges the body by using laxatives, enemas, or diuretics, vomiting, and/or exercising. They often act in secrecy and feel disgusted and ashamed as they binge, yet - once their

stomachs are empty again - feel relieved of tension. *See "Maladaptive Behaviors, Eating Disorders" section.*

Case Management – Service that assists children and their families in identifying and accessing services that meet their individual needs. The primary purpose of case management is to ensure that the needed services are delivered in an effective and efficient manner. The activities of a case manager may include identifying and reaching out to individuals in need of assistance, assessing needs and planning services, linking the individual to supports and services, coordinating services with other providers, monitoring service delivery, and advocating for these children in response to their changing needs. Case management services are typically provided by community services boards, private clinics, and social services agencies.

Case Manager – Health care professional who works directly with clients, coordinates various activities, and acts as the clients' primary contact with other members of their treatment teams. Case managers are often social workers.

Certified Sex Offender Treatment Provider –Psychologist specializing in providing sex offender treatment services.

Type of degree held: M.A., Ph.D., Psy.D., M.D., with additional coursework and supervision in sex offender treatment.

Where they can be found: Residential treatment centers, therapeutic group homes, community services boards, private outpatient mental health clinics.

See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Certified Substance Abuse Counseling Assistant – A professional certified to perform the substance abuse treatment functions of orientation, implementation of substance abuse treatment plans, case management, substance abuse or dependence crisis intervention, record keeping, and consultation with other professionals. A certified substance abuse counseling assistant may participate in recovery group discussions, but cannot engage in counseling with either individuals or groups or engage in independent or autonomous practice. They act under the supervision of a licensed substance abuse treatment practitioner or a CSAC.

Type of degree held: High School Diploma or equivalent, along with additional coursework and supervised experience in substance abuse treatment.

Where they can be found: Inpatient substance abuse treatment centers, community services boards, and private outpatient mental health and substance abuse clinics.

See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Certified Substance Abuse Counselor (CSAC) – A professional certified to perform the substance abuse treatment functions, which generally include screening, intake, orientation, assessment, recovery and relapse prevention planning, substance abuse treatment, and case management. However, these activities must be conducted under the supervision of a licensed substance abuse treatment practitioner. A CSAC may also be responsible for supervising certified substance abuse counseling assistants.

Type of degree held: B.A., along with additional coursework and supervised experience in substance abuse treatment.

Where they can be found: Inpatient substance abuse treatment centers, community services boards, and private outpatient mental health and substance abuse clinics.

See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Children's Advocacy Center – A model for investigation and intervention in child abuse cases. A facility-based, child-friendly, multidisciplinary approach to the investigation, treatment, and prevention of child abuse cases is utilized.

Child and Adolescent Psychiatrist – Licensed physician (M.D. or D.O.) specializing in the evaluation, diagnosis, and treatment of mental disorders in children and adolescents. Their medical and psychiatric training with children and adolescents prepares them to treat children and adolescents either individually, as part of and involving the family unit, and/or in a group setting. Child and adolescent psychiatrists can prescribe medications, if needed. *See "General Description of Providers" and "Providers Licensed in Virginia" sections.*

Chronic – A term used to describe long-term persistence. In some mental health disorders, *chronic* is specified as persisting for six months or longer.

Clinical Psychologist – A psychologist specializing in the practice of psychotherapy in individual, family, marital, and group settings.
Type of degree held: Ph.D., Psy.D.
Where they can be found: Psychiatric hospitals, residential treatment centers, community services boards, private outpatient mental health and substance abuse clinics, private practice.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Consolidated Omnibus Budget Reconciliation Act (COBRA) – Federal legislation requiring employers to allow former employees to continue their insurance coverage up to 18 months (three years for divorced or separated spouse and children). The insured must reimburse the employer for the cost of the coverage, plus up to 5% in administrative fees.

Cognitive Behavioral Therapy (CBT) – A form of psychotherapy that helps people learn to change inappropriate or negative thought patterns and behaviors associated with their illness. The goal is to recognize negative thoughts or mind-sets (mental processes such as perceiving, remembering, reasoning, decision making, and problem solving) and replace them with positive thoughts, which will lead to more appropriate and beneficial behavior. For instance, cognitive behavioral therapy tries to replace thoughts that lead to low self-esteem ("I can't do anything right") with positive expectations ("I can do this correctly.").

Community-based Care – Care and supports rendered outside the institutional setting. Treatment is provider where the child lives, works and plays. It may be a school or home.

Community Policy and Management Teams (CPMTs) – These are teams that operate under the Comprehensive Services Act to coordinate agency efforts, manage available funds, and see that eligible youths and their families get the assistance they need. The CPMTs coordinate long-range, community wide planning which ensures the development of resources and services needed by children and families in its community. CPMTs establish policies governing referrals and reviews of children and families to the Family Assessment and Planning Teams (see FAPTs). Each CPMT establishes and appoints one or more Family Assessment and Planning Teams based on the needs of the community. CPMTs also authorize and monitor the use of funds by each Family Assessment and Planning Team. The CPMT includes a representative from the following community agencies: Community Services Board, Juvenile Court Services Unit, Department of Health, Department of Social l Services, and the local school division. The team also includes a

parent representative and a private provider organization representative for children or family services, if such organizations are located within the locality.

Community Services Boards (CSBs) – These agencies serve as the single point of entry into the publicly-funded mental health system. They provide comprehensive mental health, mental retardation, and substance abuse services. There are 39 CSBs throughout the Commonwealth. Because these agencies are affiliated with local governments, there is tremendous variation in the number and types of services offered by each. However, CSBs usually provide certain core services: crisis intervention services, local inpatient services, outpatient services, case management, day support, residential services, and early intervention services.

Comorbidity – A condition in which a child is diagnosed with more than one disorder at the same time.

Comprehensive Services Act (CSA) –Virginia law creating a collaborative system in which state and local agencies work together and draw on the same pool of funds to plan and provide services for at-risk youth. The purpose of the act is to provide high quality, child centered, family focused, cost effective, community-based services to high-risk youth and their families. In each community, local teams decide how to do this. There are two primary teams that operate under the CSA are the Family Assessment and Planning Teams (FAPTs) and Community Policy and Management Teams (CPMTs).

Conduct Disorder (CD) – Children with CD exhibit persistent and critical patterns of misbehavior. These children may indulge in frequent temper-tantrums like ODD children; however, they also violate the rights of others (Center for the Advancement of Children's Mental Health at Columbia University, 2000). Disordered behaviors include aggression towards people or animals, destruction of property, deceitfulness, theft or serious violation of rules (Murphy, et al., 2001). *See "Behavior Disorders, Oppositional Defiant & Conduct" section.*

Continuum of Care – Term that implies a progression of services that a child would move through, probably one at a time. The more up-to-date idea is one of comprehensive services. See systems of care and wraparound services.

Counseling – A service that incorporates care consultation, evaluation, and outpatient treatment to those experiencing concerns about their mental health.

Court Service Units (CSU) – Local agencies operated by the Department of Juvenile Justice which serve as gatekeepers for children and families served by the local Juvenile and Domestic Relations Court. These units are responsible for handling petitions, intakes, investigations and reports, custody investigations, and probation supervision.

Crisis Intervention (Emergency) Services – 24-hour services that may be provided in either residential or nonresidential settings. They are short term interventions designed for children and adolescents who are basically well-functioning but experience periodic crisis, or who have problems that are more serious and are prone to acute episodes which require special services. The underlying goal of these services is to assist the child and family in resolving the situation so that inpatient hospitalization is unnecessary. Nonresidential crisis services include telephone hotlines, walk-in crisis intervention services, mobile crisis outreach services, and intensive home-based

interventions. Residential services include runaway shelters, crisis stabilization units, and temporary placements in programs such as therapeutic foster care and crisis group homes. Treatment typically includes evaluation and assessment, crisis intervention and stabilization, and follow-up planning. To the extent possible, families are included in all phases of the treatment. These programs are typically provided by community services boards, private clinics and providers, and psychiatric hospitals.

Cultural Competence – Help that is sensitive and responsive to cultural differences. Caregivers are aware of the impact of their own culture and possess skills that help them provide services that are culturally appropriate in responding to people's unique cultural differences, such as race and ethnicity, national origin, religion, age, gender, sexual orientation, or physical disability. They adapt their skills to fit a family's values and customs.

Day Treatment Services – *See "Therapeutic Day Treatment" definition.*

Depression – A depressive disorder characterized by extreme feelings of sadness, lack of self-worth, and dejection. *See "Mood Disorders" section.*

Developmental Disorders - Category of mental health problems which identifies children who have difficulty accomplishing early developmental tasks such as language, communication, socialization, and motor skills. These disorders are believed to have a genetic cause and are rare. *See "Pervasive Developmental Disorders" section.*

Diagnostic and Statistical Manual of Mental Disorders Revised (DSM-IV) – Official manual listing psychiatric and psychological disorders, published by the American Psychiatric Association in 1994 and recognized by the insurance industry as the primary authority for the diagnosis of mental disorders.

Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision Revised (DSM-IV-TR) – Revision of the fourth edition of the manual published by the American Psychiatric Association in 2000, replacing the *DSM–IV.*

Discharge Plan – Document which identifies relevant features of admission including diagnosis, clinical course while admitted, and results of relevant investigations. Additionally, required elements for the ongoing treatment and medical care and maintenance of the patient which are to occur post-discharge are also listed.

Disruptive Disorders – These disorders are the most common reasons children are referred for mental health evaluations and treatment. Disruptive disorders include mental health problems with a focus on behaviors that both identify emotional problems and create interpersonal and social problems for children and adolescents in the course of their development. Conduct disorder and Oppositional defiant disorder are two classes of disruptive disorders. Attention deficit hyperactivity disorder is also considered a disruptive disorder. *See "Behavior Disorders" section.*

Dual Diagnosis – Having more than one major clinical psychological/psychiatric diagnosis. The term is often used to describe people who have a severe mental illness such as Major Depression, Bipolar Disorder, or Schizophrenia and a co-existing substance abuse problem (alcohol dependence, cocaine dependence, opioid dependence, etc.).

Dysfunction – Abnormal or impaired functioning, especially of a bodily system or social group.

Dyslexia – Inability or difficulty in reading, including word-blindness and a tendency to reverse letters and words in reading and writing.

Dysthymia – Type of affective disorder (or mood disorder) that often resembles a less severe, yet more chronic form of major (clinical) depression. However, persons with dysthymia may also experience major depressive episodes at times. *See "Mood Disorders" section.*

Early Intervention Services – Services intended to improve functioning or change behavior in children identified as experiencing problems, symptoms, or behaviors. The goal is to improve the child's behaviors in order to prevent a future need for more extensive treatment. This approach also includes infant and toddler intervention, which provides family-centered, community-based early intervention services designed to meet the developmental needs of infants and toddlers and their families to enhance the child's development and to prevent or minimize the potential for developmental delays. These types of services are most often provided by social service agencies, community services boards, pediatricians and nurses in health clinics, and schools.

Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) – Early and Periodic Screening, Diagnosis, and Treatment, Medicaid's comprehensive and preventive child health program for individuals under the age of 21. The ESPDT program covers screening and diagnostic services to determine physical or mental defects in recipients and health care, treatment, and other measures to correct or ameliorate any defects and chronic conditions discovered. Services include health and developmental history screening, immunization, nutritional status assessment, vision and hearing testing, dental services for children three years and older, and visual treatment including eyeglasses.

Eating Disorders – Refers to a variety of disorders characterized by is abnormal eating behaviors, which are serious mental health problems and can be life threatening. *See "Maladaptive Behaviors, Eating Disorders" section.*

Electroconvulsive Therapy (ECT) – A treatment method usually reserved for very severe or psychotic depressions or manic states that often are not responsive to medication treatment. A low–voltage alternating electric current is sent to the brain on an anesthetized patient to induce a convulsion or seizure, which has a therapeutic effect.

Emergency Services – *See "Crisis Intervention Services" definition.*

Etiology – A process that describes how a problem or diagnosis developed to its current condition. It typically answers the question "how did the child get that way?"

Exposure Therapy – A form of psychotherapy in which a patient is deliberately exposed to the problem or event that triggers psychological problems under controlled conditions. The consumer is then taught techniques to avoid performing the compulsive rituals or to work through the trauma.

Family Access to Medical Insurance Security (FAMIS) – Virginia's Title XXI Plan that helps families provide health insurance to their children.

Family Assessment and Planning Teams (FAPTs) – Local teams which operate through the Comprehensive Services Act. The purpose of the team is to assess the strengths and needs of troubled youths and families who are approved for referral to the team and identify and determine the services that are necessary to meet these unique needs. They are responsible for developing an individual family services plan (IFSP) for youths and families reviewed by the team that provides for appropriate and cost-effective services, and for monitoring the child's progress under this plan. Members of the team include parents as well as staff from local agencies including the community services board, court service unit, Department of Social Services, Department of Health, schools, and private providers. Children and adolescents may be referred to the FAPT teams from any of these agencies, and they receive services based on available funding.

Family Preservation Services – *See "Home-Based Services" definition.*

Family Support Services – Services that are designed to assist families in dealing with the pressures and demands of raising children with severe emotional disturbance. A variety of services are provided to assist families in achieving balanced lives, including respite care, family self-help, support, and advocacy groups, and assistance with financial or family survival needs (food, housing, transportation, home maintenance). Family support services may also include providing caregivers with the necessary education, information, and referrals to ensure that they are informed decision-makers. These services are typically provided by social service agencies, community services boards, and private agencies and organizations.

Family Systems Therapy – A form of psychotherapy that focuses on how a child interacts with his/her most important social environment, the family. The underlying premise of the therapy is that the child's problems are best understood by observing how they fit into the larger scheme of relationships among the members of the family group.

Fetal Alcohol Syndrome – Condition affecting the children of mothers who consume large quantities of alcohol during pregnancy; it can involve cognitive delays, attention difficulties, and physical and emotional disability. Deficits range from mild to severe, including growth retardation, brain damage, mental retardation, anomalies of the face, and heart failure.

Free Appropriate Public Education (FAPE) – A statutory requirement that children and youth with disabilities receive a public education appropriate to their needs, at no cost to their families.

Generalized Anxiety Disorder (GAD) – Mental disorder characterized by chronic, excessive worry and fear that seems to have no real cause. Children or adolescents with generalized anxiety disorder often worry a lot about things such as future events, past behaviors, social acceptance, family matters, their personal abilities, and/or school performance. *See "Anxiety Disorders" section.*

Group Homes – *See "Therapeutic Group Homes" definition.*

Halfway Houses – See *"Therapeutic Group Homes" definition.*

Hallucinations – A strong perception of an event or object when no such situation is present; may occur in any of the senses (i.e., visual, auditory, gustatory, olfactory, or tactile).

Health Maintenance Organization (HMO) – A medical care organization organized to deliver and finance health care services through a network of participating providers. An HMO provides comprehensive health care services to its members for a fixed prepaid premium. A primary care physician must provide or authorize all services provided to members. Members must use in–network physicians.

Home-Based Services (Family Preservation Services) – Services typically provided in the residence of an individual who is at risk of being moved into an out-of-home placement or who is being transitioned back into the home from an out-of-home placement. The treatments are family-focused, and involve working within the home environment to preserve the family structure. The services may include crisis treatment, intensive case management, individual and family counseling, skill building (life, communication, and parenting), 24 hour emergency response, and assisting in obtaining and coordinating needed services, resources, and supports. Services vary based on the goals of the program and the needs of the family. The services tend to be of short duration (1 to 3 months) but highly intensive (5 to 20 hours per week). They are usually provided only when other interventions have proven unsuccessful. They are typically offered through child welfare agencies, community services boards, mental health centers, hospitals, juvenile justice agencies, or private providers.

Incidence – Measure of morbidity or other events as they happen over a period of time. It usually refers only to the number of new cases, particularly of chronic diseases.

Independent Living Services – Programs specifically designed to help adolescents make the transition to living independently as an adult. They provide training in daily living skills (financial, medical, housing, transportation) as well as vocational and job training. They are offered by therapeutic group homes, residential treatment centers, day treatment programs, community services boards, and private clinics.

Individualized Educational Plan (IEP) – Plan developed by parents, teachers, school administrators, and the student to meet the unique educational needs of a student with a disability. It should contain specific objectives and goals that are based upon the student's current level of educational performance in a variety of areas. It should also describe the services that are to be provided by the school system within the context of the educational program.

Individuals with Disabilities Act (IDEA) – Federal law mandating that a free and appropriate public education be available to all school-age children with disabilities. Also known as Public Law 105-17.

Inpatient Hospitalization – Services provided on a 24-hour basis in a hospital setting and the most restrictive placement that a child can receive. It tends to be reserved for children with difficult and ongoing problems. Hospitals use a variety of interventions, including individual, group, and family therapy, medication management, and behavior modification.

Institute for Mental Disease (IMD) – Residential facility with more than 16 beds which specializes in psychiatric care.

Intensive Outpatient Therapy (IOP) – A form of partial hospitalization that is more intense than regular once-per-week outpatient therapy and less intense than full inpatient hospitalization. Patients come for therapy, which is often conducted in a group setting, several days per week for several hours at a time. This type of treatment is typically shorter in duration than full partial hospitalization programs.

Intermediate Care Facility (ICF) – An intermediate care facility is an institution furnished health-related care and services to individuals who do not require the degree of care provided by hospitals or skilled nursing facilities as defined under Title XIX (Medicaid) of the Social Security Act.

Intermediate Care Facilities for Persons with Mental Retardation (ICF/MR) – Facilities providing a community-based residential setting for individuals with mental retardation who also have severe medical needs. They offer rehabilitative services designed to maximize independence and enhance the resident's quality of life. They provide residential care, skilled nursing, and specialized training, and may include training programs in language, self-care, independent living, socialization, academic skills, and motor development. While ICF/MRs most often serve adults, adolescents can sometimes be placed in these programs.

Interpersonal Therapy – A form of psychotherapy that focuses on improving interpersonal skills by exploring the relationships that the child or adolescent has with others. The therapist actively teaches the youth to evaluate their interactions with others and to become aware of self-isolation and social difficulties. The therapist offers advice and helps the youth make decisions about the best way to interact with other people.

Intrusive Aversive Therapy – A formal behavior management technique designed to reduce or eliminate severely maladaptive, violent, or self-injurious behavior by using negative stimuli when problem behaviors are exhibited. It does not include verbal therapies, seclusion, physical or mechanical restraints used in conformity with the applicable human rights regulations, or psychotropic medications.

Juvenile Correctional Centers (JCCs) – Secure residential facilities operated by the Virginia Department of Juvenile Justice. Juvenile offenders are committed to JCCs by the Juvenile and Domestic Relations District Courts and Circuit Courts for rehabilitation and confinement. These facilities provide programs to address the treatment, disciplinary, medical, and recreational needs of the juveniles.

Juvenile Firesetting – Deliberate destruction of property by juveniles through fire, which sometimes results in casualties. *See "Maladaptive Behaviors, Juvenile Firesetting" section.*

Juvenile Sex Offender – Juvenile perpetrating sex offense(s) by committing any sexual act against the victims' will, without consent, or in an aggressive, exploitive, or threatening manner. *See "Juvenile Offenders" section.*

Lesch-Nyhan Disease (LND) – a rare and devastating genetic disorder characterized by severe dystonia (over-activity of a specific group of muscles), spasticity, speech impairment, renal disease, varying degrees of cognitive deficit, and the characteristic symptom, compulsive self-injury.

Licensed Clinical Social Worker (LCSW) – A social worker who, by education and experience, is professionally qualified at the autonomous practice level to provide direct diagnostic, preventive and treatment services that may include psychotherapy and counseling for mental disorders, substance abuse, marriage and family dysfunction, and problems caused by social and psychological stress or health impairment.
Type of degree held: M.S.W. or D.S.W., along with supervised experience in a treatment setting.
Where they can be found: Local social service agencies, hospitals (both regular and psychiatric), residential treatment centers, group homes, community services boards, and private outpatient mental health and substance abuse clinics.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Licensed Professional Counselor (LPC) – The specific legal license that a psychotherapist, usually at the master's level of training, can get. Educational and experiential standards to achieve the LPC license are lower than the requirements for Psychologist or Psychiatrist licensure. Not all counselors are LPCs.
Type of degree held: M.A. or M.S., along with coursework and a supervised residency in counseling and psychotherapy.
Where they can be found: Residential treatment centers, community services boards, private outpatient mental health and substance abuse clinics.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Licensed Social Worker (LSW) – These are persons who are trained to provide diagnostic, preventive and treatment services, but on a supervised rather than independent basis.
Type of degree held: B.A. or M.S.W., along with supervised experience in a treatment setting.
Where they can be found: Local social service agencies, hospitals (both regular and psychiatric), residential treatment centers, group homes, community services boards, private outpatient mental health and substance abuse clinics.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Licensed Substance Abuse Treatment Practitioner – Professionals who are licensed to provide advanced substance abuse treatment and independent, direct and unsupervised treatment to such individuals or groups of individuals, and to plan, evaluate, supervise, and direct substance abuse treatment provided by others.
Type of degree held: M.A. or M.S., along with additional coursework and a supervised residency in substance abuse treatment.
Where they can be found: Inpatient substance abuse treatment centers, community services boards, private outpatient mental health and substance abuse clinics.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

License/licensure – Permission granted to an individual or organization by a competent authority, usually public to engage lawfully in a practice, occupation, or activity. Licensure is the process by which the license is granted. It is usually granted based on examination and/or proof of education rather than on measures of performance. A license is usually permanent, but may be conditioned on annual payment of a fee, proof of continuing education, or proof of competence.

Major Depression (also known as clinical depression or unipolar depression.) – Type of affective disorder (or mood disorder) that goes beyond the day's ordinary ups and downs, and has become a serious medical condition and important health concern in this country. *See "Mood Disorders" section.*

"Mandated" – Designation provided to children receiving funding under the Comprehensive Services Act. State and local governments are required by law to appropriate sufficient funds for services for these youth. Children and adolescents who fall within this category are generally those who receive individualized services from the education and foster care systems.

Marriage and Family Therapist – Person trained in the assessment and treatment of cognitive, affective, or behavioral mental and emotional disorders within the context of marriage and family systems through the application of therapeutic and family systems theories and techniques.
Type of degree held: M.A. or M.S., additional coursework and a supervised residency in marriage and family counseling.
Where they can be found: Community services boards, private outpatient mental health and substance abuse clinics.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Medicaid – Federal program (Title XIX of the Social Security Act) that pays for health services for certain categories of people who are poor, elderly, blind, disabled, children under the age of 19, pregnant women and caretaker relatives of children under the age of 18 and who meet financial eligibility criteria.

Mental Retardation – Characterized both by a significantly below-average score on a test of mental ability or intelligence and by limitations in the ability to function in areas of daily life, such as communication, self-care, and getting along in social situations and school activities. Mental retardation is sometimes referred to as a cognitive or intellectual disability. *See "Mental Retardation" section.*

Mentorship Services – Individuals who serve as role models and caring adult support figures outside of the immediate family, and often serve a protective role in the lives of at-risk youth. They can be citizen volunteers or paid paraprofessionals. Their primary role is to assist the youth's development of social support and social skills, competencies and confidence, and to provide school support. Some specific activities include crisis intervention and problem solving, academic assistance, vocational support and recreation, and most importantly, developing a supportive and helpful relationship with the child. This is accomplished through regularly scheduled contact, which is often daily. These types of services may be provided by community services boards, social service agencies, private clinics, and volunteer agencies.

Methadone Detoxification and Maintenance – Services that combine outpatient treatment with the administering of methadone as a substitute narcotic drug, in decreasing doses, until the

individual reaches a drug-free state. These treatments usually do not last longer than 180 days. They are typically provided by substance abuse treatment centers.

Mood Disorders – Category of mental health problems including all types of depression and bipolar disorder. *See "Mood Disorders" section.*

Mood Stabilizer – Psychiatric medication used in the treatment of bipolar disorder to suppress swings between mania and depression.

Non-mandated – Designation given to youths who are referred for services under the Comprehensive Services Act for which the Commonwealth is not required to provide complete funding. Children and adolescents who fall into this category are generally referred for treatment by the juvenile justice or mental health systems.

Neurotransmitters – In the brain, these chemicals transfer messages from one nerve cell to another and affect mood.

Norepinephrine – A hormone that regulates blood pressure by causing blood vessels to narrow and the heart to beat faster.

Obsessive-compulsive disorder (OCD) – Anxiety disorder in which a person has an unreasonable thought, fear, or worry that he/she tries to manage through a ritualized activity to reduce the anxiety. Frequently occurring disturbing thoughts or images are called obsessions, and the rituals performed to try to prevent or dispel them are called compulsions. *See "Anxiety Disorders" section.*

Operant Conditioning – Process of behavior modification in which the likelihood of a specific behavior is increased or decreased through positive or negative reinforcement each time the behavior is exhibited, so that the subject comes to associate the pleasure or displeasure of the reinforcement with the behavior.

Oppositional Defiant Disorder (ODD) – An enduring pattern of uncooperative, defiant and hostile behavior to authority figures that does not involve major antisocial violations. *See "Behavior Disorders, Oppositional Defiant & Conduct Disorders" section.*

Outpatient Psychiatric Services – Services provided to individuals, groups, or families on an hourly schedule. Outpatient services are the most frequently used treatment method for children, and may either be provided for a short term (6 to 12 sessions) or a longer duration (a year or longer). Services are generally provided on a weekly basis, if not more often, depending on the individual needs of the child and family. However, under managed care and most insurance plans, brief therapy is likely to be mandated. It is the least restrictive form of service for children and families, and it is provided in a number of settings, including community services boards, outpatient psychiatry departments of hospitals, and private offices. It is most often provided by psychiatrists, psychologists, social workers, and counselors. Treatment efforts may include diagnosis and evaluation, intake and screening, counseling, psychotherapy, behavior management, psychological testing and assessment, and medication management. These services are typically offered in community services boards, private clinics and offices, and outpatient psychiatry departments of hospitals.

Parent – A parent, a guardian, or a person acting as a parent in the absence of a parental guardian. The term "parent" also means a surrogate parent appointed pursuant to Virginia regulations.

Partial Hospitalization – A form of therapeutic day treatment that is based in a psychiatric hospital. It provides the use of a psychiatric hospital setting during the day, with children returning to their home each night. It is frequently used for those children who are being released from a psychiatric hospital and must transition back into the community and the school system. It is also used to assist youths at risk of inpatient hospitalization. *See also "Therapeutic Day Treatment" definition.*

Pervasive Developmental Disorders (PDD) – These disorders can usually be identified in the early years of a child's life. Children with PDD have difficulty in areas of development or use of functional skills such as language, communication, socialization, and motor behaviors. Examples of PDD include:

- autism (autistic disorder)
- Asperger's disorder
- Rett's disorder
- childhood disintegrative disorder (also called disintegrative psychosis)

See "Pervasive Developmental Disorders" section.

Pharmacology – The study of the nature, actions and uses of drugs.

Phobia – An uncontrollable, irrational, and persistent fear of a specific object, situation, or activity.

Plan of Care – Treatment plan designed for each child or family. The caregiver(s) develop(s) the plan with the family. The plan identifies the child and family's strengths and needs. It establishes goals and details appropriate treatment and services to meet his or her special needs.

Post-traumatic Stress Disorder (PTSD) – A debilitating condition that often follows a terrifying physical or emotional event causing the person who survived the event to have persistent, frightening thoughts and memories, or flashbacks, of the ordeal. Persons with PTSD often feel chronically, emotionally numb.

Prader-Willi Syndrome (PWS) – an uncommon inherited disorder characterized by mental retardation, decreased muscle tone, short stature, and an insatiable appetite which can lead to life-threatening obesity.

Prevalence – The number of cases of disease, infected persons, or persons with some other attribute, present at a particular time and in relation to the size of the population from which drawn. It can be a measurement of morbidity at a moment in time.

Prevention Services – Services that promote families, communities, and systems working together to reduce the incidence of mental illness, mental retardation, other developmental disabilities, and substance abuse disorders. Emphasis is on the enhancement of protective factors and reduction of risk factors. Activities may include information dissemination, prevention education, and problem identification and referral. Services are most often provided by social service agencies, community services boards, pediatricians and nurses in health clinics, and schools.

Private Inpatient Units – Privately-owned hospitals which offer inpatient psychiatric and/or substance abuse services to children and adolescents with severe, acute disturbances. They are licensed as hospitals under state regulations.

Private Providers – Mental health professionals who provide services in private offices or within the context of private mental health centers. The services that they provide are not publicly-funded, and therefore treatments are usually paid for either through private insurance, Medicaid, or the FAMIS program, or through contracts with public agencies.

Private Residential Units – Privately-owned residential facilities that provide intensive treatment services to children and adolescents with emotional or mental disorders. They are somewhat less restrictive than private inpatient units, but still tend to be highly structured and secure, and should be reserved for children and adolescents in crisis. However, the level of security and restrictiveness tend to vary across facilities.

Psychiatric Social Worker – A core mental health professional, who has earned the Masters' of Social Work degree, and is trained to appreciate and emphasize the impact of environmental factors on mental disorders. *See "General Description of Providers" and "Providers Licensed in Virginia" sections.*

Psychiatrist – A medical doctor or physician. Psychiatrists are experts in the use of medications to treat mental disorders and also experts in the diagnosis and treatment of mental illnesses. *Type of degree held*: M.D., as well as completion of a multi-year residency in psychiatry (treatment of mental illness), usually in a hospital setting and under supervision of senior psychiatrists.
Where they can be found: Hospitals (regular and psychiatric), community services boards, private outpatient mental health clinics, private practice.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

Psychoeducational Services – The process of providing information to parents, children, and teachers about the features of the child's diagnosis, the most effective management strategies, and the services available to provide the necessary treatment.

Psychological Evaluation – A clinical examination conducted by a mental health professional that is used to determine the nature of a child's psychological difficulties. It often includes an analysis of components of the child's life such as his/her development, behavior, education, medical history, and family and social relationships. An evaluation usually requires several hours to complete and is often best performed over several sessions, including sessions for the child and parents separately and together. In addition, a full evaluation usually requires the collection of information from a variety of outside sources, such as the school, child's pediatrician, psychological testing, and social service agencies.

Psychopathology – The science that studies mental diseases.

Psychopharmacology – Use of medication to treat mental disorders. These medications work to control the symptoms of mental illness by correcting or compensating for some malfunction in the body. Medications do not cure mental illness--they reduce the burdensome effects.

Psychosis – A disruption of thinking that impairs an individual's reality contact and social perception. It is frequently associated with the diagnosis of schizophrenia.

Psychosocial treatments – Services that focus on the relationship between psychological, environmental, and social factors. They include certain forms of psychotherapy as well as social and vocational training, and are intended to provide support, education, and guidance to people with mental illnesses and their families. A psychiatrist, psychologist, social worker, or counselor typically provides these psychosocial therapies. The therapist and a psychiatrist may work together as the psychiatrist prescribes medications and the therapist monitors the consumer's progress. The number, frequency, and type of psychotherapy sessions a consumer has should be based on his or her individual treatment needs.

Psychotherapy – An intervention that involves regularly scheduled sessions between the patient and a mental health professional such as a psychiatrist, psychologist, psychiatric social worker, or psychiatric nurse. Licensed Clinical Social Workers and Advanced Practice Psychiatric Nurses may also provide psychotherapy. The goal of this treatment is to help consumers understand why they are acting and thinking in ways that are troubling or dangerous to themselves or others so they have more control over their behaviors and can correct them. It is commonly used in the treatment of children and youth with emotional and behavioral problems, either in conjunction with or in place of prescribed medications. This form of therapy varies with regard to theoretical approach, with the most prevalent of these being the psychodynamic, behavioral, cognitive-behavioral, interpersonal, supportive, and family systemic approaches.

Psychotropic Medications – Prescribed drugs that reduce the symptoms of biologically based psychological disorders. They are most often prescribed for the following diagnoses: schizophrenia, bipolar disorder, depression, anxiety disorders, obsessive-compulsive disorder, and panic disorder. *See also "Psychopharmacology" definition.*

Purging – Children with bulimia nervosa engage in a destructive pattern of ridding their bodies of the excess calories (to control their weight) by vomiting, abusing laxatives or diuretics, taking enemas, and/or exercising obsessively - a process called purging. *See "Maladaptive Behaviors, Eating Disorders" section.*

Regression – Partial or symbolic return to earlier patterns of reacting or thinking. Manifested in a wide variety of circumstances such as normal sleep, play, physical illness, and in many mental disorders.

Reinforcement – The strengthening of a response by reward or avoidance of punishment. This process is central in operant conditioning.

Residential Services – Services which provide overnight care in conjunction with intensive treatment or training programs. They are typically provided in psychiatric hospitals, residential treatment centers (RTCs), and therapeutic foster homes.

Residential Treatment Center (RTC) – 24-hour facilities providing short-term intermediate care, crisis stabilization, and intensive mental health treatment programs. They are not licensed as hospitals and serve as an alternative to inpatient psychiatric hospitalization. The settings vary, with some highly structured like psychiatric hospitals, while others are similar to group homes or

halfway houses. They also vary in the range of services they offer, as some offer a full range of treatment services while others are more limited or specialized. While these facilities were originally designed to serve as long-stay institutions, under managed care they are serving youth for periods as brief as 1 month, serving only as a source for intensive evaluation and stabilization.

Respite Care – A type of family support service. Parents are given relief from childcare by either placing the child with another family or bringing a caretaker into the home for a few days. This service is usually provided on a planned basis under circumstances in which either there has been a prolonged crisis in which the child has exhausted the family resources, or there has been another family crisis, such as illness or death of another family member. This service may be provided by community services boards, social service agencies, or private clinics.

Risk or Risk Factor – Term used to quantify the likelihood that something will occur. A risk factor is something, which either increases or decreases an individual's risk of developing a disorder or disease. However, it does not mean that, if exposed, an individual will definitely contract a particular disease.

School Psychologists – Psychologists licensed to practice in a school setting.
Type of degree held: M.A. with an endorsement in psychology or Ph.D.
Where they can be found: Public and private schools, special education residential schools, special education day schools, therapeutic day treatment centers.
See "General Description of Providers" and "Providers Licensed in Virginia" sections.

School-based Services – Any program, intervention, or strategy applied in a school setting that was specifically designed to influence students' emotional, behavioral, or social functioning. *See "School-based Mental Health Services" section.*

Schizophrenia – A severe, chronic, and disabling disturbance of the brain that causes distorted thinking, strange feelings, and unusual behavior and use of language and words. *See "Schizophrenia" section.*

Secure Treatment Service – Provision of services for people with mental disorders or serious mental health problems who, based on clinical assessment, require treatment in a closed setting to ensure the safety of the person, the staff and the community. Three levels of inpatient secure treatment are provided: acute inpatient secure treatment, extended secure treatment and high security treatment.

Sedatives – A group of drugs used to produce sedation (calmness). Sedatives include sleeping pills and anti-anxiety drugs.

Selective Serotonin Reuptake Inhibitors (SSRIs) – A commonly prescribed class of drugs for treating depression. SSRIs work by stopping the reuptake of serotonin, an action that allows more serotonin to be available to be taken up by other nerves.

Self-help and Support Groups – Groups designed for people and families dealing with life difficulties such as mental illness or substance abuse. Typically, they are not led by a professional therapist; however, these groups may be therapeutic because members give each other ongoing

support. They provide support to both the child and the family, as they learn that others have problems similar to theirs and share in their experiences and coping mechanisms.

Self-Injury (SI) – The repetitive, deliberate infliction of harm to one's own body. *See "Maladaptive Behaviors, Self-Injury" section.*

Separation Anxiety Disorder (SAD) – Excessive worry and fear about being apart from family members or individuals to whom a child is most attached. Children with separation anxiety disorder fear being lost from their family or fear something bad happening to a family member if they separated from them.

Serious Emotional Disturbance (SED) – Serious emotional disturbance in children ages birth through 17 is defined as a serious mental health problem that can be diagnosed under the *DSM-IV*, or the child must exhibit all of the following:

a. Problems in personality development and social functioning that have been exhibited over at least one-year's time;
b. Problems that are significantly disabling based upon the social functioning of most children that age;
c. Problems that have become more disabling over time; and
d. Service needs that require significant intervention by more than one agency.

Serotonin – A chemical that transmits nerve impulses in the brain (neurotransmitter) causes blood vessels to narrow at sites of bleeding and stimulates smooth muscle movement in the intestines. It is thought to be involved in controlling states of consciousness and mood.

Serotonin and Norepinephrine Reuptake Inhibitors – Commonly prescribed class of drugs for treating depression, which work by inhibiting the reuptake of serotonin and norepinephrine, an action that allows serotonin and norepinephrine to be available to be taken up by other nerves.

Social History – When children and adolescents become involved with the juvenile justice system, a social history is performed by personnel of the Court Service Unit. The social history describes the social adjustment of the person before the court, which is used to help the court to select the most appropriate disposition for the case. The social history is also used by the court service unit to develop appropriate services for the juvenile and the family. A social history may also be conducted by other health care providers for purposes of conducting a mental health evaluation.

Special Education – Specially designed instruction, which adapts, as appropriate, to the needs of a disabled child. Such education must ensure access for the child to the general curriculum, so that he or she can meet the educational standards that apply to all children. This education is to be provided at no cost to the parents and is implemented under the guidelines of the Individuals with Disabilities Act (IDEA), which requires school to identify children with disabilities in need of special education.

Special Education Day Schools – A form of therapeutic day treatment. These are schools that are specially designed to meet the needs of children with severe behavior disorders who are unable to function adaptively in the regular school system. The programs allow for collaboration between teachers and mental health professionals, and provide low student-teacher ratios and additional family services with the ultimate goal of returning the child to the regular school setting.

Standards of Learning (SOLs) – The outline of the basic knowledge and skills that Virginia children will be taught in grades K-12 in the four academic subjects of English, math, science, and social studies.

State Mental Health Facilities – State-run facilities providing a range of psychiatric, psychological, rehabilitative, nursing, support, and other necessary services for children and adolescents with significant and acute psychiatric concerns. Two in the Commonwealth are designated for children and adolescents: the Southwestern Virginia Mental Health Institute and the Commonwealth Center for the Treatment of Children and Adolescents.

Stuttering – Speech characterized by abnormal hesitations, prolongations, and repetitions which are developmentally inappropriate for the age or mental ability of the speaker.

Substance Abuse Medical Detoxification –A form of inpatient services in which doctors and other medical personnel use medication to eliminate or reduce effects of alcohol or other drugs in the patient's body. These services are available in local hospitals or other emergency care facilities.

Suicidal Behavior – Actions taken by one who is considering or preparing to cause their own death. *See "Youth Suicide" section.*

Suicidal Ideation – Thoughts of suicide or wanting to take one's life. *See "Youth Suicide" section.*

Suicide – The intentional taking of one's own life. *See "Youth Suicide" section.*

Suicide Attempt – An act focused on taking one's life that is unsuccessful in causing death. *See "Youth Suicide" section.*

Supportive Therapy – Psychotherapy focusing on the management and resolution of current difficulties and life decisions using the individual's strengths and available resources.

Symptom – A reported feeling or specific observable physical sign of a patient's condition that indicates a physical or mental abnormality.

Syndrome – A grouping of signs and symptoms, based on their frequent co-occurrence, that may suggest a common underlying pathogenesis, course, familial pattern, or treatment selection.

System of Care – A method of delivering mental health services that helps children and adolescents with mental health problems and their families get the full range of services in or near their homes and communities. These services must be tailored to each individual child's physical, emotional, social, and educational needs. In systems of care, local organizations work in teams to provide these services.

Temporary Assistance for Needy Families (TANF) – A block grant program designed to move recipients into work and turning welfare into a program of temporary assistance. TANF replaced the national welfare program known as Aid to Families with Dependent Children (AFDC) and the related programs known as the Job Opportunities and Basic Skills Training (JOBS) program and the Emergency Assistance (EA) program. TANF recipients are usually eligible for full Medicaid benefits and include children younger that 18 (or expected to graduate from high school by age 19). One of the child's parents must be dead, absent, disabled or unemployed.

Therapeutic Camp Services – A special form of therapeutic group care in which youth and staff live together in a wilderness environment. The nature of the living situation requires that participants demonstrate responsible and independent behavior in order to take care of the basic necessities of living, including food and shelter. The primary emphasis of the treatment is the encouragement of each participant to be a contributing member of the group. The goal of this form of treatment is to build skills in dealing with immediate situations of both a social and nonsocial nature.

Therapeutic Day Treatment – An outpatient treatment program that serves children with diagnoses that range from severe emotional disturbance to developmental delay. These services provide an integrated set of psychoeducational activities, counseling, and family treatments which involve the young person for several hours each day. Services typically include special education, individual and group counseling, family counseling and training, crisis intervention, skill building, behavior modification, and recreational therapy. However, the nature of these programs may vary widely due to factors such as setting, the population being served, the intensity of treatment, the theoretical approach, and the treatment components. The integration of this broad range of services is designed to strengthen both individual and family functioning and to prevent a more restrictive placement of the child. The child is able to receive the benefits of a structured setting while being able to return home at night and continue involvement with family and peers. These services may be offered in regular school settings, special education day schools, community services boards, and hospitals. Currently Medicaid is the only third party source that routinely covers this service.

Therapeutic Foster Care – The least restrictive form of residential treatment, placing children in private homes with specially trained foster parents. It is typically provided to children and adolescents with emotional or behavioral disturbances. The intent of these programs is to provide treatment within a family context. Children are placed with foster parents who have been carefully selected to work with children with special needs. These parents receive education and training to assist in working effectively with the child, including topics such as active listening, behavioral management and programming, and age-appropriate behavioral expectations. These parents become part of a support structure that exists among the foster parents and case managers work in close connection with the child and family. During this placement, efforts are made to provide the biological family with counseling, support, and other types of assistance so that the child can be returned to the home as quickly as possible. Programs tend to differ in approach, structure, intensity and type of training. Most serve youth from birth to 18 years, with most youth entering during early adolescence.

Therapeutic Group Homes – Facilities which provide emotionally and behaviorally disturbed adolescents with an environment to learn social and psychological skills. These homes are located in the community, and residents attend the local schools. In Virginia, a group home is defined as

a community-based, home-like single dwelling, or its acceptable equivalent, other than the private home of the operator, and serves up to 12 residents. An array of services is provided, such as individual psychotherapy, group therapy, and/or behavior modification. Vocational training and work experiences are typically included as part of the treatment program for adolescents. The amount of structure incorporated into the program varies based on the level of need of the youths served.

Tic – An involuntary, sudden, rapid, recurrent, nonrhythmic, stereotyped motor movement or vocalization.

Title IV-E – The Federal Social Security Act authorizing financial assistance for foster children and for families receiving adoption assistance.

Title V – Title 5 of the Social Security Act, which became the Maternal and Child Health Services Block Grant in 1981.

Title XVIII – Social Security Act Pertaining to Medicare.

Title XIX – Medicaid. A federally aided, state-operated and administered program which provides medical benefits for certain indigent or low-income persons in need of health and medical care. Authorized by Title XIX of the Social Security Act.

Title XXI – The State Children's Health Insurance Program (SCHIP) that authorizes states to provide health insurance coverage to uninsured children up to 200% of the federal poverty level (FPL). States may provide this coverage by expanding Medicaid or by expanding or creating a state children's health insurance program. FAMIS is Virginia's SCHIP program.

Tourette's Disorder – Disorder characterized by multiple motor tics and at least one vocal tic. A tic is a sudden, rapid movement of some of the muscles in the body that occurs over and over and does not serve any purpose. *See "Tourette's Disorder" section.*

Transactional Medical Assistance – Provides short-term Medicaid coverage for people who lose assistance when they secure a job that does not provide health benefits.

Transitional Services - Services which help children leave the system that provides help for children and move into adulthood and the adult service system. Help includes mental health care, independent living services, supported housing, vocational services, and a range of other support services.

Trauma – Any injury, physical or emotional.

Tricyclic anti-depressants (TCA) – Drugs used in the treatment of clinical depression. Tricyclic refers to the presence of three rings in the chemical structure of these drugs.

Virginia Independence Program (VIP) – Virginia's Welfare Reform program.

Virginia Initiative for Work not Welfare (VIEW) – Work component of Temporary Assistance for Needy Families (TANF) program.

Wraparound Services – Child- and family-driven services and supports which are community-based. They address the child's needs in the home, school, and community, and are developed through collaboration between the child, family, and all of the service providers who provide support to the child. The underlying purpose is to provide services that follow the child as he/she interacts in different environments in the community. The organizations involved in collaboration can include mental health, education, juvenile justice, and child welfare. Case management is usually necessary to coordinate services.

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COMMONLY USED ACRONYMS

AAA – Area Agency on Aging
AACAP – American Academy of Child & Adolescent Psychiatry
AB – Aid to the Blind
ABD – Aged, Blind, and Disabled
ACT – Assertive Community Treatment
ADA – Americans with Disabilities Act
ADD – Attention Deficit Disorder
ADHD – Attention Deficit Hyperactivity Disorder
AFDC – Aid to Families with Dependent Children
AG – Auxiliary Grant
ALF – Assisted Living Facility
ALOS – Average Length of Stay
Arc of Virginia – Association for Retarded Citizens of Virginia
APA – American Psychiatric Association
APA – American Psychological Association
ASFA – Adoption and Safe Families Act of 1997 (U.S.)
ATOD – Alcohol, Tobacco and Other Drugs
BB-BS – Big Brothers-Big Sisters
BH-MCO – Behavioral Health Managed Care Organization
BHA – Behavioral Health Authority
BHO – Behavioral Health Organization
BHRS – Behavioral Health Rehabilitative Services
BIP – Behavior Intervention Plan
CAFAS – Child and Adolescent Functional Assessment Scale
CASA – Court Appointed Special Advocate
CBC – Community Based Care
CBT – Cognitive-behavioral therapy
CD – Conduct Disorder
CDC – Centers for Disease Control and Prevention
CHADD – Children and Adults with Attention Deficit Disorders
CHINS – Child in Need of Services
CMS – Centers for Medicare and Medicaid Services
COBRA – Consolidated Omnibus Budget Reconciliation Act
COLA – Cost of Living Adjustment
COY – Commission on Youth (Virginia)
CPMT – Community Policy and Management Team (Virginia)
CPS - Child Protective Services
CSA – Comprehensive Services Act for At Risk Youth and Families (Virginia)
CSAC – Certified Substance Abuse Counselor
CSB – Community Services Board (Virginia)
CSU – Court Services Unit
DARE – Drug Abuse Resistance Education
DCSE – Div. of Child Support Enforcement (Virginia)
DCE – Dept. of Correctional Education (Virginia)
DCJS – Dept. of Criminal Justice Services (Virginia)
DD – Developmental Disability or Dually Diagnosed
DHP – Dept. of Health Professions (Virginia)
DJJ – Dept. of Juvenile Justice (Virginia)
DMAS – Dept. of Medical Assistance Services (Virginia)
DMHMRSAS – Dept. of Mental Health, Mental Retardation and Substance Abuse Services (Virginia)
DOC – Dept. of Corrections (Virginia)
DOE – Dept. of Education (Virginia)
DRS – Dept. of Rehabilitative Services (Virginia)
DSM-IV – *Diagnostic and Statistical Manual (Mental Disorders), Fourth Edition*
DSS – Dept. of Social Services (Virginia)
DUI – Driving Under the Influence
DWI – Driving While Intoxicated
EA – Emergency Assistance
EAP – Employee Assistance Program
EBT – Electronic Benefits Transfer
ECT – Electroconvulsive Therapy
EDNOS – Eating disorders not otherwise specified
EPSDT – Early and Periodic Screening, Diagnosis, and Treatment
ESL – English as a Second Language
FAMIS – Family Access and Medical Insurance Security Plan, Virginia's Title XXI Plan
FAMIS CPU – Application-processing unit for FAMIS (Virginia)
FAPE – Free Appropriate Public Education
FAPT – Family Assessment and Planning Team
FAS – Fetal Alcohol Syndrome
FC – Foster Care
FDA – Food and Drug Administration
FFS – Fee for Service
FFT – Functional Family Therapy
FPL – Federal poverty level
FS – Food Stamp Service
GAD – Generalized Anxiety Disorder
GOSAP – Governor's Office for Substance Abuse Prevention (Virginia)
HCBS – Home and Community Based Services
HIPAA – Health Insurance Portability and Accountability Act (U.S).
HMO – Health Maintenance Organization
I&R – Information and Referral
ICF – Intermediate Care Facility

COMMONLY USED ACRONYMS *(continued)*

ICF/MR -- Intermediate Care Facility for persons with Mental Retardation
ICJ – Interstate Compact on Juveniles
ICM – Intensive Case Manager
IDEA – Individuals with Disabilities Education Act (U.S.)
IEP – Individualized Educational Plan
IMD – Institute for Mental Disease
IOP – Intensive Outpatient Therapy
ISP – Individualized Service Plan
JCC – Juvenile Correctional Centers
JCHC – Joint Commission on Health Care (Virginia)
LCSW – Licensed Clinical Social Worker
LPC – Licensed Professional Counselor
LPR – Lawful Permanent Resident
MCO – Managed Care Organization
MDD – Major Depressive Disorder
MTFC – Multidimensional Treatment Foster Care
MH – Mental Health
MI – Medically Indigent
MP-NN – Middle Peninsula-Northern Neck
MR – Mental Retardation
MR/MI – Mentally Retarded/Mentally Ill (dual diagnosis)
MSW – Master of Social Work
MST – Multisystemic Therapy
NAMI – National Alliance for the Mentally Ill
NIMH – National Institute of Mental Health
OCD – Obsessive-compulsive Disorder
ODD – Oppositional Defiant Disorder
PACCT – Parents and Children Coping Together
PACT – Program of Assertive Community Treatment
PAIMI – Protection and Advocacy for Individuals with Mental Illnesses Act (U.S.)
Part C – Part C of the IDEA (federal funds for early intervention services)
PDD – Pervasive Developmental Disorder
PDDNOS – Pervasive Developmental Disorder not Otherwise Specified
PEATC – Parent Educational Advocacy Training Center (Virginia)
POS – Point of Service
PPO – Preferred Provider Organization
PTSD – Post Traumatic Stress Disorder
PRWORA – Personal Responsibility and Work Intermediate Care Facility for persons with Opportunity Reconciliation Act of 1996 (U.S)
RCF – Residential Care Facility
RTC – Residential Treatment Center
SAD – Separation Anxiety Disorder
SAMHSA – Substance Abuse and Mental Health Services Administration
SCHIP – The State Children's Health Insurance Program, Title XXI of the Social Security Act, created by the Balanced Budget Act of 1997. (See FAMIS.)
SED – Serious Emotional Disturbance
SI – Self-injury
SOLs – Standards of Learning
SSBG – Social Service Block Grant
SSDI —Social Security Disability Insurance
SSI – Supplemental Security Income
SSN – Social Security Number
SSRI – Serotonin and Norepinephrine Reuptake Inhibitors
STD – Sexually Transmitted Disease
SW – Social Worker
TANF – Temporary Assistance for Needy Families
TDO – Temporary Detention Order
TMA – Transactional Medical Assistance
VACO – Virginia Association of Counties
VALHSO – Virginia Association of Local Human Services Officials
VDH – Virginia Dept. of Health
VHCA – Virginia Health Care Association
VIEW – Virginia Initiative for Work not Welfare. Work component of Temporary Assistance for Needy Families (TANF) program.
VIP – Virginia Independence Program
VISSTA – Virginia Institute for Social Services Training Activities (VCU)
VJCCCA – Virginia Juvenile Community Crime Control Act
VOPA – Virginia Office for Protection and Advocacy
VPCA – Virginia Primary Care Association
WIC – Supplemental Nutrition Program for Women, Infants, and Children.
WTW – Welfare to Work

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