UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

CSMH
Center for School Mental Health

The Impact of School Mental Health:
Educational, Social, Emotional, and Behavioral Outcomes

Below are key highlights of the impact of school mental health. A more detailed summary of the literature, including empirical findings is provided on pages 2 -10.

- Between 14-20% of children and adolescents experience a mental, emotional, or behavioral disorder each year.
  - The majority of these children and adolescents do not receive treatment and without treatment may experience significant negative short- and long-term outcomes, such as substance use, risky sexual behavior, violence, and mental health difficulties.

- The high rates of under-identification, limited access to treatment, and low quality of mental health services for children and adolescents in the United States prompted the U.S. Surgeon General to declare this area a national public health crisis.

- President Obama has identified school mental health as a critical arena for early identification and referral, violence prevention efforts and overall community safety.

- As school mental health programs have significantly greater acc**e**ss to children and adolescents relative to community mental health centers, it is critical to provide mental health care in schools.

- Over the past 20 years, policies and programs that integrate mental health services into the schools have burgeoned, and research continues to demonstrate their positive impacts on educational and mental health outcomes.

- School mental health programs have a positive impact across a variety of emotional and behavioral outcomes, and educational outcomes in children and adolescents. For example, studies show:
  - Improvements in behavioral and emotional symptoms
  - Increases in social competency
  - Increases in standardized reading and math test scores
  - Improvements in commitment to school
  - Increases in school attendance
  - Increases in grade point average

- Evidence suggests that school mental health programs help to improve service access and utilization in services for ethnic minority youth.

- Furthermore, *all* youth in schools can benefit from school mental health policies and programs that successfully promote social, emotional, and behavioral health, build positive school climate, and prevent school violence and dropout.

- In recognition of the severity of the crisis and the demonstrated benefits associated with school mental health, significant federal, state, and local support has been directed towards the development and implementation of school mental health programs nationwide.

The Impact of School Mental Health:
A Summary of Educational, Social, Emotional, and Behavioral Outcomes

Children's Needs for Mental Health Care are Largely Unmet

- A report by the Institute of Medicine revealed that between 14-20% of children and adolescents experience a mental, emotional, or behavioral disorder each year (National Academy of Sciences, 2009).
- Despite this widely documented need for care across the developmental spectrum (from preschool to college), the mental health needs of students are largely unmet.
    - Among youth ages 8-15 years old with a diagnosable mental disorder, only about half (50.6%) received treatment in the past year (per the National Health and Nutrition Examination Survey, Merikangas et al., 2010, as well as Green et al., 2013).
    - Greenberg et al. (2003) found that as many as 70% of school-aged children with a diagnosable mental illness do not receive treatment
    - Among adolescents with a mental disorder, approximately two thirds (63.8%) do not receive treatment, and half of adolescents with severly impairing mental disorders have never received mental health treatment (Merikangas et al., 2011).
    - Mental health services for preschool children are often limited and difficult to access (National Scientific Council on the Developing Child, 2008).
    - A small percentage of college students with mental health disorders actually seek treatment (Blanco, Okuda, Wright, et al., 2008).

There is Strong Federal Support for School Mental Health

- Federal support for school mental health has increased significantly. The Surgeon General's report on Children's Mental Health (U.S. Public Health Service, 2000) and the President's New Freedom Commission report, *Achieving the Promise: Transforming Mental Health Care in America* (2003), recognize schools as a major setting for mental health care and a critical avenue for enhancing service utilization. The President's New Freedom Commission report includes as one of its nineteen direct recommendations to "improve and expand school mental health programs."
- In January 2013, President Obama's four-point plan to protect children and communities included increasing access to mental health services (The White House, 2013). His approach includes $15 million for Mental Health First Aid training to teachers, $40 million for improving screening and referral of students with mental health neds to treatment, $50 million to train over 5,000 additional mental health professionals in schools, $25 million to school mental health services for trauma or anxiety, conflict resolution, and/or school-based violence prevention programs. This funding is in addition to ensuring coverage of mental health treatment through the Affordable Care Act.

School Mental Health Increases Access to Care

- In order to meet the needs of all youth, it is critical to provide mental health care in natural settings, such as schools, and effectively partner with caregivers and communities (Kazak, Hoagwood, Weisz, Hood, Kratochwill, Vargas, & Banez, 2010).
- School mental health programs have significantly greater access to children and adolescents relative to community mental health centers, as evidenced by:
    - 70-80% of children and adolescents who receive mental health services access services in the school setting (Rones & Hoagwood, 2000).
    - Approximately 96% of children follow through with school mental health services after the initial referral; whereas only 13% of children follow through with referrals to community mental health centers (Catron, Harris, & Weiss, 1998).
- Twenty percent of students receive some form of school mental health services (Foster, Rollefson, Doksum, Noonan, Robinson, & Teich, 2005).
- School mental health programs have been successful in overcoming logistical barriers to care and decreasing the stigma of help seeking, which has resulted in dramatic improvements in access to care (Bringewatt & Gershoff, 2010).
- As the U.S. becomes increasingly diverse, school systems must be responsive to shifting demographics (Clauss-Ehlers, Weist, Gregory, et al., 2010). The need for culturally sensitive and competent school mental health policies, programs, and practices should be highly prioritized given research demonstrating that minority and disadvantaged groups in the U.S. are less likely to (a) have access to mental health care and (b) receive quality care when they are able to access services (Garland, Lau, Yeh, et al., 2005). Evidence suggests that school mental health programs help to close the gap in services for ethnic minority youth (Snowden, & Yamada, 2005).
- School mental health resources vary widely by school, and schools' efforts in early identification are significantly related to service use for students (Green et al., 2013).
- Mental health difficulties are frequently underidentified, making system-wide school mental health promotion and prevention programs absolutely critical to promote student resilience and help-seeking (Flett & Hewitt, 2013).

School Mental Health Care Offers Unique Benefits

Mental Health Care is Most Effective When Provided in Childrens' Natural Environment

- Integrating mental health services within schools promotes an ecologically grounded, comprehensive approach to helping children and families by addressing their educational and concomitant emotional, behavioral and developmental needs (Atkins, Adil, & Jackson, 2001).
- A comprehensive literature review indicates that the most effective interventions are those that target the ecology or environments of the child, and are well-integrated into the learning environment (Rones & Hoagwood, 2000).
- School mental health programs promote the generalization and maintenance of treatment gains (Evans, 1999), enhance capacity for prevention and mental health promotion (Elias et al., 1997; Weare, 2000), and foster clinical efficiency and productivity (Flaherty & Weist, 1999).

Mental Health Promotion and Prevention Expands Reach

- Beyond just students with diagnosable disorders, all youth in schools can benefit from school mental health policies and programs that successfully promote social, emotional, and behavioral health, build positive school climate, and prevent school violence and dropout (Bruns, Walrath, Siegel, & Weist, 2004; Schargel & Smink, 2001; U.S. Department of Health and Human Services, 2001; Weist & Cooley-Quille, 2001).
- When school mental health programs are successful in reaching the whole school, students and teachers feel that they are in a positive learning environment and there are fewer referrals to special education based on emotional/behavioral problems (Weist, Evans, & Lever, 2003).

Positive Educational and Social/Emotional/Behavioral Outcomes of School Mental Health

Evidence of Positive Social/Emotional/Behavioral Outcomes

- There is evidence that school mental health programs have an impact across a variety of emotional and behavioral problems in children and adolescents (Rones & Hoagwood, 2000).
- When students' mental health needs are effectively addressed through school mental health programs, the following outcomes have been shown:
    - Reduced emotional and behavioral disorders such as attention deficit/ hyperactivity disorder, depression, and conduct disorder (Hussey & Guo, 2003).
    - More likely to be engaged and feel connected to the school (Greenberg et al., 2005).
- Improved behaviors in the school and decreased disciplinary actions (Jennings, Pearson, & Harris, 2000).Kutash, Duchnowski, and Green (2011) examined four different types of school-based mental health programs in youth with emotional disturbances served in special education, and found (longitudinal) improvement in either emotional or social functioning of youth across all four programs as well as improvement in functional impairment for three of the four programs.
- A meta-analysis of 249 experimental and quasi-experimental studies of school-based psychosocial prevention programs for aggressive and disruptive behavior yielded effect sizes of 0.21 and 0.29 for universal and selected/indicated programs, respectively (Wilson & Lipsey, 2007).
- In an urban setting, elementary school children (n=201) who participated in a school-mental health program demonstrated statistically significant reductions in conduct disordered behavior, attention deficit-hyperactivity, and depressive symptomatology over the course of approximately one year (Hussey & Guo, 2003).
- Approximately 40 studies reviewed on the Good Behavior Game (a classroom management strategy in which the goal is to decrease disruptive behaviors such as talking, out of seat behavior, aggression, and name-calling) found almost immediate reductions in disruptive, aggressive, or inattentive behaviors (Tingstrom, Sterling-Turner, & Wilczynski, 2006).

Evidence of Positive Educational Outcomes

- It has also been well-documented that mental health prevention and intervention programs can help reduce non-academic barriers to learning (Dix, Slee, Lawson, &

Keeves, 2012; Massey, Armstrong, et al., 2005), leading to the academic gains that are a focus of current and proposed reforms.

- Improvements in educational outcomes associated with school mental health services include:
    - Improved academic performance (Greenberg et al., 2003; Welsh et al., 2001; Zins et al., 2004).
    - Fewer special education referrals and decreased need for more restrictive placements among students at high-risk (Bruns et al., 2004).
    - Higher graduation rates (Lehr et al., 2004).
- The Responsive Classroom Approach (RCA) is an approach to teaching that integrates social-emotional competence and academic learning within the classroom (Rimm-Kaufman, Fan, Chiu, & You, 2007). A study of 2,790 2nd-4th grade students across six schools (three experimental and three control) found that the students in schools using RCA demonstrated statistically significant gains in standardized reading and math test scores, as compared to the control group.
- After one year of implementation of a comprehensive (i.e., universal, indicated, and intensive services) school mental health program within two schools in an inner-city urban school district, students demonstrated significantly fewer mental health difficulties, less functional impairment, and improved behavior. Students also reported improved mental health knowledge, attitudes, beliefs, and behavioral intentions. Furthermore, teachers reported significantly greater proficiency in managing mental health problems in their classrooms (Walter, Gouze, Cicchetti, Arend, Mehta, Schmidt, & Skvarla, 2011).

Programs with Evidence of *Both* Educational and Social/Emotional/Academic Outcomes

- A meta-analysis of 24 articles (published between 1990 and June 2006) which examined the impact of school mental health interventions on both mental health and educational outcomes found that 62.5% of the interventions studied demonstrated dually positive outcomes in regards to both mental health and education (Hoagwood, Olin, Kerker, Kratochwill, Crowe, & Saka, 2007). In addition, the authors identified 40 studies that focused exclusively mental health outcomes, with 95% reporting positive findings.
- A universal review of classroom-based programming was conducted of 180 school-based studies (Payton, Weissberg, Durlak, Dymnicki, Taylor, Schellinger, & Pachan, 2008). Students in the Social Emotional Learning (SEL) programs demonstrated improvement in their social-emotional skills, attitudes towards self, school, and others, social behaviors; conduct problems; emotional distress; and academic performance. SEL students also displayed an average gain on achievement test scores of 11 to 17 percentile points.
- The D.C. School Mental Health Program (SMHP), located within the Office of Programs and Policy in the D.C. Department of Mental Health, provides a full continuum of services including prevention, early intervention, and treatment services to youth, families, teachers and school staff (Parks, Dubenitz, & Sullivan, 2008). An evaluation of the DC SMHP during the 2007-2008 academic year suggested that students receiving school mental health services made significant improvements.
    - Based on pre- and post- surveys, students who participated in Good Touch Bad Touch (i.e., primary prevention) demonstrated significant improvements in their knowledge of protecting themselves from abuse.
    - Youth and parent hopefulness significantly increased from intake to discharge.

    - Youth, parents, and clinicians reported that students' everyday functioning, and behavioral and emotional symptoms significantly improved from intake to discharge.
    - Youth and parents endorsed high satisfaction with the treatment.
    - The number of students who met criteria for psychiatric disorders decreased after treatment, and demonstrated a significant improvement in global functioning.
    - More than 40% of clients demonstrated measured improvement in problem severity and overall functioning.
- A study of 938 elementary students from 1st and 2nd graders in 10 schools (five control and five intervention) found that those randomly assigned to the Raising Healthy Children (RHC) intervention (i.e., teacher training on topics such as cooperative learning methods, strategies to enhance student motivation, and interpersonal skills) had significantly higher teacher- and parent-reported academic performance (Catalano, Mazza, Harachi, Abbott, Haggerty, & Fleming, 2003). Specifically, participating students had significantly higher teacher-reported academic performance and a stronger commitment to school, as well as demonstrated a significant decrease in anti-social behaviors and increased social competency compared to non-participating peers. Parent-reported outcomes also showed that participating students had higher academic performance, and a stronger commitment to school.
- An examination of 96 elementary schools in Australia receiving a large-scale social emotional initiative, Australian KidsMatter, found that quality of implementation is a significant predictive factor of student outcomes (Dix, Slee, Lawson, & Keeves, 2012). Students at schools with high quality implementation demonstrated academic achievement gains superior to low quality implementation schools, controlling for socioeconomic background (i.e., 2.6 months ahead by Year 3 and 6.2 months ahead by Year 7 of the program, Dix, Slee, Lawson, & keeves, 2012).

School-Based Health Centers Also Show Positive Student Outcomes

According to the Children's Health Insurance Reauthorization Act of 2009, a school-based health center (SBHC) is defined as "a health clinic that is (a) located in or near a school facility of a school district or board or of an Indian tribe or tribal organization; (b) organized through school, community, and health provider relationships; (c) administered by a sponsoring facility; (d) provides through health professionals, primary health services to children in accordance with State and local law, including laws relating to licensure and certification; and (e) satisfies such other requirements as a State may establish for the operation of such a clinic." The majority of these clinics are located in underserved, high needs areas, with large populations of vulnerable and often underserved youth.

The Role of Mental Health In SBHCs

- A review of the literature provides support for the use of SBHCs as a means of increasing mental health services (Brown & Bolen, 2008). The authors encourage school psychologists and other mental health clinicians to partner with SBHCs to broaden their scope of care and help provide wraparound services to students and their families in the school environment.

- Mental health providers are located in 75% of school based health centers (SBHCs) (Strozer, Juszczak, & Ammerman, 2010). In addition, mental health care is the number one reason students visit SBHCs (Wasczak & Neidell, 1991).

SBHC Outcomes

- A longitudinal study examining SBHCs found effects of high school students' usage of medical and mental health service on their academic outcomes (Walker, Kerns, Lyon, Bruns, & Cosgrove, 2010). The authors used a latent variable growth curve modeling approach to measure differences between 9th grade SBHC users versus non-users. Results indicated among high-risk students, there was a significant increase in grade point averages over time for students enrolled in mental health services as compared to those who were not using those services.
- Results from a study of 2,114 ninth and eleventh grade students from seven inner-city public high schools (3 with SBHCs and 4 without SBHCs) found that substance use decreased in SBHC schools; whereas cigarette and marijuana smoking increased in non-SBHC schools (Robinson, Harper, & Schoeny, 2003).
- Schools that referred students to mental health services through a SBHC saw a 50% decrease in absences from students who were rated high on a psychosocial impairment (Gall, Pagano, Desmond, Perrin, & Murphy, 2000).
- In a state-wide examination of school-based programs, involvement in SBHC services was positively associated with students' course credit completion and academic aspirations (Warren & Fancsali, 2000).
- A study of a large, urban school district found students' absences were reduced by 32% after receiving school mental health services through SBHC (Jennings, Pearson, & Harris, 2000). In addition, district-wide there was a 95% decrease in office discipline referrals and a 31% decrease in failing grades after school mental health services were provided.
- A SBHC in Baton Rouge, Louisiana implemented a 4-year dropout prevention program (Witt, Vanderheyden, & Penton, 1999). Results showed a 30% decrease in absences and reduction in office discipline referrals after program implementation.
- A study examined three SBHCs that provided universal, targeted, and selective mental health services and prevention programming to students over a two-year time frame (Fiester, Nathanson, Visser, & Martin, 1996). All three centers provided classroom instruction in violence prevention, peer mediation/conflict resolution training, individual counseling, a crisis hotline, classroom support for school health program, and participation in disciplinary proceedings. All SBHCs reported improved student attitudes and behaviors, fewer suicide attempts, fewer fights on campus, and increased student visits for mental health services.

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The mission of the Center for School Mental Health is to strengthen policies and programs in school mental health to improve learning and promote success for America's youth.

We welcome input regarding additional content that would help to document the impact of school mental health on educational, emotional and behavioral outcomes. Please contact Dr. Elizabeth Connors, econnors@psych.umaryland.edu, with any suggestions and/or feedback.

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