

TABLES

Table 1. School-Based Behavioral Health Effectiveness Literature: Clinical, Tertiary Interventions

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Anthony, B.J. and J. Sebian	Georgetown University Center for Child and Human Developme nt	2011	80,000 elementary, middle, and high school students in 200 schools in Baltimore City Public Schools - compared students who received Expanded School Mental Health services in schools with students who did not receive services.	Expanded School Mental Health clinicians provided direct, face-to- face behavioral counseling and group treatment sessions to students as well as universal prevention activities at the group, classroom, grade, and whole school level.	Academic performance on standardized tests and academic engagement via attendance and number of suspensions	Positive effects observed on English and math concepts mastery, attendance improved and suspensions declined among students who received direct ESMH services.	1, 2, 3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Armbruster P, Lichtman J	Community Mental Health Journal	1999	256 children ages 5 to 18 across 36 New Haven schools who received school-based services from clinical therapists from university-affiliated children's psychiatric outpatient clinic compared to a sample of children (N = 220) who received services in the clinic.	Clinical therapist provided mental health services in the school setting.	Behavioral functioning via clinical therapist rating scales.	The improvement among both sets of children was comparable, even though the children treated in the school setting were seen for a slightly shorter period of time (an average of 5 versus 8 months) but had an equally frequent level of service (3 sessions per month in each setting) indicating that school-based mental health services show improvement comparable to the clinic-based services.	3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Baskin, T.W., et al.	Journal of Counseling Psychology	2010	Meta-analytic review of 83 studies of psychotherapy interventions for youth ages 4 to 19, over 6,500 participants in elementary, middle and high schools.	Youth psychotherapy interventions carried out by professional therapists (focused on interventions intended to reduce psychological distress, decrease self-defeating behaviors, or increase adaptive behaviors through counseling); most intervention took place in elementary, middle, and high schools, but school setting was not required for inclusion in meta-analysis.	A variety of behavioral health outcome measures and academically related outcome measures including teacher-rated on-task behavior in classrooms, specific tests of academic ability, student-reported academic self-efficacy, and grades	Significant impact of youth psychotherapy on academically related outcome measures (ES=0.38). Academically related outcomes were categorized into four domains: teacher-rated classroom behavior (ES=0.26), academic achievement (ES=0.36), environmentally related outcomes (ES=0.26), and self-reported academically related outcomes (ES = 0.59); each effect size differed significantly from zero. Also, results revealed significant impact on mental health outcomes (ES=0.50).	3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Becker, K.D. et al.	Advances in School Mental Health Promotion	2014	Meta-analytic review of 88 randomized controlled trials of psychotherapy interventions for youth; majority of study participants were ages 4 to 16; at least 42% of study groups in RCTs were treated in school setting.	Psychosocial treatments including cognitive behavioral therapy and play therapy provided in a variety of settings including school, outpatient clinic, home and community; school setting was not required for inclusion in meta- analysis.	A variety of behavioral health outcome measures and academically related outcome measures including academic achievement, academic and behavioral skills, attendance and academic self- efficacy.	Positive impacts on educational outcomes observed for treatments delivered in school and non-school settings.	3
Blanco PJ.	John Wiley & Sons Inc; US--Impact of school- based child- centered play therapy on academic achievement , self- concept, and teacher- child relationships	2010	41 students in 1st grade identified as academically at-risk in 4 Title I elementary schools in Denton, Texas; 20 students in the sample were randomly assigned to waitlist, no treatment control group.	Child centered play therapy (CCPT) sessions facilitated by trained doctoral level counseling student or trained masters level practitioner; students received 16 CCPT session over the course of the study period.	Academic functioning and performance via practitioner and teacher report rating scales and academic assessment.	Observed statistically significant higher academic assessment scores among treatment students (p=0.03); no significant results found on teacher report of student-teacher relationship measure.	3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Bruns EJ, Moore E, Stephan SH, Pruitt D, Weist MD	Journal of Youth and Adolescence	2005	41 elementary schools with ESMH programs compared to 41 schools without from a pool of nonspecialized elementary schools in Baltimore City.	ESMH services included individual, group, and family therapy; implementation of prevention and school- wide programs; and teacher consultation for student behavioral and emotional issues provided by school personnel and mental health masters- or doctoral-level clinicians from collaborating community mental health center placed in the school.	Out of school suspension rates	The presence of ESMH clinicians in the study schools did not predict out- of-school suspension rates. Qualitative data suggested that most students suspended were never referred for services or were referred after the school administrator already suspended and schools with clinicians lacked structure for ensuring early and consistent referral of students at risk for suspension for intervention.	1, 2, 3
Daly, B.P. et al.	Advances in School Mental Health Promotion	2014	89 students in grades K to 8 in Minneapolis Public Schools who received Expanded School Mental Health services and a matched comparison group.	Expanded School Mental Health services were provided by a full-time, licensed mental health professional located in the school setting.	Academic performance on benchmark assessments and academic engagement via attendance and number of suspensions	Positive relationship, but not significant, between treatment and academic achievement on math and reading benchmark at alpha=0.05; standardized test scores improved over time for both the treatment and matched comparison group. No significant relationship between treatment and academic engagement outcomes.	3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Hussey, D.L and S. Guo	Journal of Community Psychology	2003	201 students grades K to 5 identified with severe emotional and behavioral difficulties from 15 elementary schools in large, urban district in Ohio.	Licensed School-Based Community Support Program mental health professionals placed on site to deliver interventions to identified students aimed to improve students' behavioral functioning and school performance.	Behavioral functioning via a variety of report rating scales.	Observed statistically significant reductions in conduct disorder behavior ($p < .01$), attention deficit hyperactivity ($p < .05$), and depressive symptomatology ($p < .01$) following one year of intervention treatment.	2, 3
Jennings J, Pearson G, Harris M	Journal of School Health	2000	Over 10,000 elementary, middle and high school students in Dallas Public Schools which operated a school-based health center (Youth and Family Center)	Licensed mental health professionals employed by the district lead multidisciplinary team of physical health and mental health providers to deliver services to students and their families at the school.	Academic engagement via attendance, behavior, grades, and test scores.	Among students receiving mental health services, 32% decrease in absences, a 31% decrease in failures, and a 95% decrease in disciplinary referrals following intervention.	2, 3
Kataoka, S., et al.	Ethnicity & Disease	2011	Approximately 120 6th grade students in two large middle schools in Los Angeles who reported exposure to violence and had symptoms of PTSD.	Cognitive-Behavioral Intervention for Trauma in Schools (CBITS) administered by trained school mental health clinicians.	Academic grades.	Positive, significant impact on spring semester grades. Early intervention students were more likely to have a passing grades in language arts (O.R. 2.9, CI 1.1, 7.5; $p=0.033$) and have significantly better mean math grades (2.0 vs.1.6, $p=0.048$).	2, 3

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Krishnan P, Yeo LS, Cheng Y	Asia Pacific Journal of Counselling and Psychothera py	2013	66 male students ages 13 to 14 identified as academically weak and having at-risk levels of aggressive and rule-breaking tendencies in secondary schools in Singapore.	The Shine Programe is a school-based, cognitive- behavioral therapy (CBT) program delivered by a master's- level counseling psychologist consisted of 11 sessions held twice weekly.	Behavioral functioning via teacher report rating scales and student self-report.	Positive, significant impact observed on aggressive and rule-breaking behavior and the gains were also evident at 1-month post-treatment.	3
Pfiffner, L.J. et al.	School Psychology Quarterly	2013	57 students who met screening criteria for ADHD in 2nd to 5th grades across nine schools in a California urban public school district.	School-based mental health professionals delivered Collaborative Life Skills Program intervention treatment in school setting and supervised additional intervention components carried out by teachers and parents.	Academic performance via benchmark assessment, grades and classroom observation, and behavioral functioning via a variety of measures and report rating scales.	Significant improvement observed in academic performance and behavioral functioning. Effect sizes for the outcomes were uniformly large.	2, 3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Prout, S.M. and H.T. Prout	Journal of School Psychology -- A Meta-Analysis of School-Based Studies of Counseling and Psychotherapy: An Update	1998	Meta-analytic review of 17 studies of school-based counseling and psychotherapy interventions conducted in a school setting or with a school-related problem for school aged children.	School-based counseling and psychotherapy interventions conducted in a school setting or with a school-related problem for school aged children; criteria for inclusion in review did not require intervention be conducted by a school-based professional.	A variety of academically related and behavioral health related outcomes	Positive treatment effects on students treated in schools or for school-related problems compared to students who did not receive treatment; an overall ES of .97 (pooled .95). Observed greater impacts with group interventions and interventions with elementary grade students; also, cognitive-behavioral interventions had stronger effects.	3
Sander MA, Everts J, Johnson J	Advances in School Mental Health Promotion-- Using data to inform program design and implementation and make the case for school mental health	2011	Review of 3 studies of the Expanded School Mental Health (ESMH) services program operating in 15 Minneapolis Public Schools; samples ranged from 80 to 800 students who received ESMH services in the elementary and middle schools.	Expanded School Mental Health services were provided by a full-time, licensed mental health professional placed in the school setting.	Mental health service usage, mental health related symptom measures and academically related outcome measures including academic achievement, attendance and suspensions.	Studies found high level of engagement in mental health services, reduced mental health symptoms, and improved some academic outcomes, specifically reduced suspension rates.	3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Stein, B.D., et al.	Journal of the American Medical Association	2003	Approximately 120 6th grade students at two large middle schools in Los Angeles who reported exposure to violence and had symptoms of PTSD.	Cognitive-Behavioral Intervention for Trauma in Schools (CBITS) administered by trained school mental health clinicians.	Classroom behavior and symptoms of PTSD and depression.	Observed significant decrease in symptoms of PTSD and depression; no significant difference in classroom behavior	2, 3
Vernberg EM, Jacobs AK, Nyre JE, Puddy RW, Roberts MC	Journal of Clinical Child and Adolescent Psychology	2004	50 elementary school students with severe, early-onset, serious emotional disturbances	The Intensive Mental Health Program (IMHP) consists of intensive mental health and education services in a specialized therapeutic classroom operating in a general-education elementary school building for 3 hours daily; the IMHP service- delivery team is multidisciplinary, including certified special education teachers, paraprofessionals, master's and doctoral- level clinical therapists, school psychologists, and school social workers.	Behavioral functioning via a variety of report rating scales.	Significant improvement in behavioral functioning at home and at school with overall large effect size.	3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Walker, S.C et al.	Journal of Adolescent Health	2010	400 students in 9th grade in a Seattle school district who initiated contact with school-based health center during 9th grade.	School-based health center services provided by a nurse practitioner or physician's assistant, a masters-level mental health counselor, and a patient care coordinator.	Academic outcomes including attendance, discipline referrals, and grade point average (GPA)	Significant association between school-based services and GPA and attendance gains; medical use was most strongly associated with increases in attendance and mental health use was more strongly associated with increases in GPA.	3
Walter, H.J., et al.	Journal of School Health	2011	638 students grades K to 8 in 2 public elementary schools in inner-city neighborhoods of major Midwestern city.	School-wide PBIS universal, indicated preventive and clinical interventions implemented over 1 school year by mental health professionals in collaboration with school teachers.	Behavioral functioning via a variety of report rating scales.	Observed significantly fewer mental health difficulties, less functional impairment, and improved behavior, and reported improved mental health knowledge, attitudes, beliefs, and behavioral intentions.	1, 2, 3

Author(s)	Journal/ Source	Year	Population	Intervention/ Structure	Outcomes Assessed	Findings	Tier
Weiss, B., et al.	Journal of Consulting and Clinical Psychology	2003	93 students in 4th grade across four elementary or elementary-middle schools that did not have in-school mental health services already available.	Reaching Educators, Children and Parents (RECAP) program is delivered by RECAP clinicians (master's-level psychiatric nurse and social worker) throughout the academic year in the school setting. RECAP clinicians provide individual and group treatment to students, as well as teacher and parent training.	A variety of behavioral health outcome measures and academically related outcome measures.	Observed significantly greater improvement in treatment students' internalizing and externalizing problems, but no significant treatment effects on grades or attendance.	3