UNIVERSITY OF NORTH CAROLINA
BEHAVIORAL HEALTH WORKFORCE
RESEARCH CENTER

Policy Brief
September 2024

Analyzing School-Based Behavioral Health Services Across HRSA-Defined Regions in the United States

Chevonne Parker, Danielle Brathwaite, Nate Sowa*, MD, PhD & Danielle Roubinov, PhD * (*co-senior)

Background

The U.S. is facing a significant youth mental health crisis (OSG, 2021). Approximately 1 in 6 school-aged American youth are diagnosed with a mental, emotional, or behavioral disorder (Whitney & Peterson, 2019). Unfortunately, the rising rates of child and adolescent mental health problems have not been met with commensurate increases in trained pediatric mental health providers (McBain et al., 2019), and research suggests nearly 50% of children and adolescents with a diagnosed mental illness fail to receive treatment (McBain et al., 2019; Whitney & Peterson, 2019). This disparity between demand for behavioral health treatment and the availability of pediatric mental health clinicians underscores the need for innovative solutions to improve access to these services.

School-based behavioral health (SBBH) services have been proposed as a strategy to increase parity and access to psychological and psychiatric care for youth (Richter et al., 2022). SBBH integrates mental health programs, interventions, or initiatives within the educational environment (Rones & Hoagwood, 2000). SBBH, whether delivered virtually or in person, may reduce rates of chronic absenteeism and school suspensions while increasing academic performance and psychiatric-related clinical outcomes (Kang-Yi et al., 2018; Murphy et al., 2015; Rones & Hoagwood, 2000). However, despite these reported benefits, information on the delivery of SBBH services across the U.S. remains relatively sparse, particularly regarding the availability and implementation of Tier 3 services (defined as individualized mental health treatment for students with significant distress and impaired functioning by the National Center for School Mental Health) (UMD, 2023). Understanding this information may inform local or state policies to expand school-based resources that address the mental health needs of youth.

Research Questions

The current study conducted a national survey to characterize the nature of SBBH services in school districts across the 10 Health Resources and Services Administration (HRSA)-defined regions in the U.S. Data were collected about Tier 3 SBBH in the following domains: 1) whether services were present or absent, 2) how services were delivered (e.g., in-person, telehealth, hybrid) and by whom (e.g., psychiatrist, psychologist, social worker, nurse, etc.), 3) whether providers were employed through mechanisms internal or external to the district, and 4) how SBBH programs were funded.

Methods

Drawing upon prior work conducted by the National Center for Education Statistics (https://nces.ed.gov/) and the Institute of Education Sciences (https://ies.ed.gov/), a brief survey was developed and piloted with teachers, school psychologists, and members of the UNC Behavioral Health Workforce Research Center (UNC-BHWRC). The survey was distributed via newsletters and professional listservs for national school-based organizations (e.g., the American Academy of Child and Adolescent Psychiatry Schools Committee, School Superintendents Association, National Association of State Boards of Education, etc.), as well as local contacts across the U.S. Respondents were given the option to enter a drawing to win a computer tablet for their school as compensation for their survey participation. This study was approved by the Institutional Review Board (IRB) at the University of North Carolina at Chapel Hill.

Univariate statistics were used to describe the population and summarize responses by demographic characteristics of school districts and within categories of Tier 3 SBBH structure and delivery. Survey responses were stratified by HRSA region and platforms of service delivery. For categorical variables, frequencies and percentages were calculated for the overall and stratified results; for continuous variables, the median and interquartile range or mean and standard deviation were reported. All analyses were performed using Stata version 18. Brief, free text responses were coded thematically in Dedoose using grounded theory qualitative methods.

Key Findings

All 10 HRSA-defined regions were represented across 332 individual respondents. The majority of school districts reported the availability of Tier 3 services (83%), the provision of which did not appear to differ markedly across elementary (81%), middle (90%), and high (88%) schools. The most common delivery modality for SBBH services delivery was in-person only (70% of school districts), followed by a hybrid model with both in-person and telehealth services (29%), and very infrequently, telehealth only (1%). However, there was variability across regions. For example, regions 4 and 10 indicated more even distributions of in-person-only and hybrid services, while other regions showed near or more than double the percentage of in-person-only delivery compared to hybrid services (**Table 1**).

Providers of any in-person SBBH services, including in-person only models and hybrid models reporting on their in-person services, were most commonly licensed clinical social workers (84%) and mental health counselors (80%). School psychologists and school counselors were more represented in districts with in-person versus telehealth services (24% and 7% versus 4% and 1%, respectively). Advanced practice providers (e.g., nurse practitioners and physician associates/assistants) and psychiatrists were least represented when services were provided in-person (4% and 7%, respectively; **Figure 1**). Please see **Table 2** for the distribution by HRSA region. Across in-person delivery models, 26% of regions reported that in-person school-based behavioral health providers were direct employees of school districts, 23% reported

employment by organizations external to the school district, and 50% reported a combination of internally- and externally employed individuals. When comparing school districts that reported in-person only (no hybrid services) versus hybrid service delivery models, the latter used roughly two times the proportion of psychiatrists and advanced practice providers.

Data on telehealth SBBH service delivery are drawn from school districts that reported hybrid models (here, the focus is on their telehealth services specifically) and regions that provided telehealth services only. The majority of telehealth services were provided using video conferencing software (96%), followed by telephone (24%), and other video/virtual programs (5%). Akin to in-person SBBH services, mental health counselors (88%) and licensed clinical social workers (70%) were the predominant providers when SBBH services were provided by telehealth (**Figure 1**). Relative to in-person delivery settings, psychologists and psychiatrists were more represented in settings where SBBH were provided by telehealth. See Table 3 for the distribution by HRSA region.

School districts reported greater support from internal district funds for in-person services (41%) relative to internal district funds for hybrid services (26%). Conversely, districts reported that hybrid programs received more funding support from external sources, including federal sources (24%) and partners (22%) compared to in-person programs (19% federal, 14% partners). A higher proportion of school districts that employ a hybrid approach to delivering SBBH reported that a greater percentage of their total budget was allocated to such services relative to school districts that deliver in-person SBBH services (see **Figure 2**).

Within brief, free-text responses, several key themes emerged in districts' reporting of needed changes to how school-based behavioral health is delivered. Those most frequently cited changes included: increasing the number of behavioral health providers and staff, greater investment in behavioral health by district and school leadership, expanding availability and hours of care, and adequate and stable funding. As one district identified: "The district needs more mental health providers. The area is in a mental health desert. Services and qualified professionals are limited. There is also stigma within the community about seeking mental health care." Districts noted higher salaries and a larger supply of SBBH workforce in schools as methods for mitigating provider burnout, with more comprehensive systems needed to ensure continuity of care and referrals to treatment for SBBH service recipients.

Policy Implications

This study adds significantly to the literature by describing the landscape of Tier 3 SBBH services in the U.S. during the 2023-2024 school year. It is encouraging to note that the overwhelming majority of school districts across HRSA regions provided SBBH. Overall, such services were predominantly delivered in-person, highlighting the need for on-site resources and personnel given the nature of these more intensive services. However, there was regional variability with some geographic areas indicating greater use of hybrid delivery platforms relative to in-person models.

Social workers and mental health counselors were the most frequently reported provider type for in-person SBBH services, whereas psychiatrists and advanced practice providers were the least widely used. This distribution may suggest a greater reliance on providers to deliver therapy and counseling services, with less emphasis on medication management in the school setting due to logistical constraints or resource limitations of the in-person model. It may also reflect the relative scarcity of psychiatrists and advanced practice providers in the community. Especially in more rural settings, psychiatrists and advanced practice providers are less likely to be available in person. Conversely, there was a higher proportion of psychiatrists and advanced practice providers in hybrid and telehealth service delivery models. This finding suggests that such models might be better resourced and more capable of integrating medication management into their services. Districts that used a hybrid delivery platform indicated that SBBH comprised a greater percentage of their total budget relative to those districts that relied upon in-person services, which may suggest that hybrid programs are more costly due to the requirement of technology and/or expenses associated with more specialized provider types. Qualitative study findings suggest that consistent funding for in-person and telehealth services would allow greater access to SBBH services, particularly in districts lacking adequate in-person provider staffing.

Policies and funding that support the expansion of SBBH services are critically needed given the current status of the youth mental health crisis. Understanding the landscape of services across the U.S. and perceptions of the relative strengths and limitations of current delivery models may assist policy makers in developing approaches to improve equitable access to behavioral health services in school settings. Federal and state funding made available in response to COVID-19, such as the Elementary and Secondary School Emergency Relief (ESSER) Fund and the Bipartisan Safer Communities Act (BSCA), expanded access to critical mental health services (Hoover, 2024). However, these investments are ending, and it remains to be seen whether this funding supports the long-term sustainability of these programs or simply offset costs for staff salaries and external vendor contracts in the short-term. Policies and regulations that may facilitate sustainability could include those that provide ongoing support for technical assistance and guidance on the billing and delivery of behavioral health services within schools covered by Medicaid, support for cross-sector collaborations to advance school mental health agendas (Hoover, 2024), and requirements and regulations for the delivery of evidence-based, Tier 3 SBBH treatments. Of note, incorporation of psychiatric prescribers within SBBH programs is relatively low, and policies that encourage implementation of strategies to include these relatively limited resources within the school setting could have a large impact on improving equitable access to youth mental health services. Given the child psychiatric prescriber workforce shortage, policies that reduce restriction on the practice of telehealth between states could help in expansion of access to these specialized services within schools. Finally, it should be noted that other organizations have developed road maps for states to develop legislation to best support implementation and sustainability of SBBH (Kimball, Lofton, & Mehta, 2023).

Funding Statement

This project is supported by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U81HP46529-01-01 Cooperative Agreement for a Regional Center for Health Workforce Studies for $1,121,875. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by SAMHSA, HRSA, HHS or the U.S. Government.

References

1. Hoover S. A. (2024). Investing in school mental health: strategies to wisely spend federal and state funding. *Psychiatric Services (Washington, D.C.), 75*(8), 801–806. https://doi.org/10.1176/appi.ps.20230553
2. Kang-Yi, C. D., Wolk, C. B., Locke, J., Beidas, R. S., Lareef, I., Pisciella, A. E., Lim, S., Evans, A. C., & Mandell, D. S. (2018). Impact of school-based and out-of-school mental health services on reducing school absence and school suspension among children with psychiatric disorders. *Evaluation and Program Planning, 67*, 105–112. https://doi.org/10.1016/j.evalprogplan.2017.12.006
3. Kimball, A., Lofton, D.Y., Mehta P.S. (2023, August 15). 2023 school mental health state legislative guide. *Hopeful Futures Campaign*. Hopefulfutures.us
4. McBain, R. K., Kofner, A., Stein, B. D., Cantor, J. H., Vogt, W. B., & Yu, H. (2019). Growth and distribution of child psychiatrists in the United States: 2007-2016. *Pediatrics, 144*(6), e20191576. https://doi.org/10.1542/peds.2019-1576
5. Murphy, J. M., Guzmán, J., McCarthy, A. E., Squicciarini, A. M., George, M., Canenguez, K. M., Dunn, E. C., Baer, L., Simonsohn, A., Smoller, J. W., & Jellinek, M. S. (2015). Mental health predicts better academic outcomes: a longitudinal study of elementary school students in Chile. *Child Psychiatry and Human Development, 46*(2), 245–256. https://doi.org/10.1007/s10578-014-0464-4
6. Office of the Surgeon General (OSG). (2021). Protecting youth mental health: The U.S. Surgeon General's advisory. *US Department of Health and Human Services*. https://www.ncbi.nlm.nih.gov/books/NBK575984/
7. Richter, A., Sjunnestrand, M., Romare Strandh, M., & Hasson, H. (2022). Implementing school-based mental health services: A scoping review of the literature summarizing the factors that affect implementation. *International Journal of Environmental Research and Public Health, 19*(6), 3489. https://doi.org/10.3390/ijerph19063489
8. Rones, M., & Hoagwood, K. (2000). School-based mental health services: a research review. *Clinical Child and Family Psychology Review, 3*(4), 223–241. https://doi.org/10.1023/a:1026425104386
9. Thomas, C. R., & Holzer, C. E., 3rd (2006). The continuing shortage of child and adolescent psychiatrists. *Journal of the American Academy of Child and Adolescent Psychiatry, 45*(9), 1023–1031. https://doi.org/10.1097/01.chi.0000225353.16831.5d
10. Whitney, D. G., & Peterson, M. D. (2019). US national and state-level prevalence of mental health disorders and disparities of mental health care use in children. *JAMA Pediatrics, 173*(4), 389–391. https://doi.org/10.1001/jamapediatrics.2018.5399

Table 1. Summary of Tier 3 Services Delivery Platforms by HRSA Regions (N = 261)

HRSA Region N	1 18	2 37	3 42	4 31	5 37	6 20	7 26	8 16	9 26	10 7	Overall 261
Delivery Service Type											
In-Person Only	17 (95%)	30 (81%)	28 (67%)	17(55%)	29(79%)	14(70%)	12(46%)	9(56%)	22(85%)	4(57%)	183(70%)
Telehealth Only	0 (0%)	0 (0%)	0 (0%)	0(0%)	0(0%)	0(0%)	0(0%)	2(13%)	0(0.00%)	0(0%)	2(1%)
Hybrid	1 (6%)	7 (19%)	14(33%)	14(45%)	8(22%)	6(30%)	14(54%)	5(31%)	4(15%)	3(43%)	76 (29%)

Notes: The overall total includes one response that did not report the information necessary to identify the corresponding HRSA region. Hybrid delivery services employed both in-person and telehealth school-based behavioral health services. Frequency counts do not include missing data for delivery service type. Percentages are calculated by column.

Table 2. Summary of In-Person Behavioral Health Providers by HRSA Region

HRSA Region N	1 17	2 35	3 41	4 31	5 37	6 20	7 25	8 14	9 26	10 7	Overall 254
Behavioral Health Provider											
Psychiatrist	1(6%)	3(9%)	3(7%)	3(10%)	2(5%)	1(5%)	3(12%)	0(0%)	1(4%)	0(0%)	17 (7%)
Adv. Practice Provider	1(6%)	1(3%)	2(5%)	2(6%)	0(0%)	2(10%)	1(4%)	0(0%)	1(4%)	0(0%)	10(4%)
Psychologist	3(18%)	13(37%)	6(15%)	7(23%)	4(11%)	1(5%)	6(24%)	3(21%)	9(35%)	0(0%)	52 (20%)
Social Worker	16(94%)	31(89%)	33(81%)	23(75%)	31(84%)	18(90%)	18(72%)	13(93%)	24(92%)	6(86%)	213(84%)
Mental Health Counselor	12(71%)	24 (69%)	32(78%)	27(87%)	28(76%)	17(85%)	21(84%)	13(93%)	22(85%)	7(100%)	204 (80%)
School Nurse	1(6%)	8(23%)	4(9.8%)	5(16%)	3(8%)	5(25%)	3(12%)	1(7%)	1(3.85%)	0(0%)	31 (12%)
Other	4(24%)	10 (29%)	10(24.4%)	6(19%)	2(5%)	6(30%)	3(12%)	1(7%)	6(23%)	3(43%)	51 (20%)

Note: In-person behavioral health providers include those working in in-person only and hybrid models. For hybrid models, respondents answered questions separately for in-person and telehealth services; participants' responses for the in-person providers are included in the above table. Psychiatrists were physicians (MD/DO). Advanced Practice Providers included nurse practitioners and physician assistants/associates. Psychologists hold doctoral degrees (PhD or PsyD). Social workers (SW, MSW, LCSW, LCSW-A) and mental health counselors (MS, LCMHC, LMFT, LPC) were classified based on licensure/credentials. Others included but were not limited to the following: school counselors, school psychologists without doctoral degrees, interns (psychology and social work), behavioral specialists, substance use disorder specialists, and occupational, speech, or music therapists. The overall total includes one response that did not report the information necessary to identify the corresponding HRSA region. Frequency counts do not include missing data for behavioral health provider types. The types of behavioral health providers were not mutually exclusive; respondents could select all that apply. Percentages are calculated by column.

Table 3. Summary of Telehealth Behavioral Health Providers by HRSA Region (N = 76)

HRSA Region N	1 1	2 7	3 12	4 14	5 8	6 6	7 14	8 7	9 4	10 3	Overall 76
Telehealth Behavioral Health Provider											
Psychiatrist	0(0%)	2(29%)	2(17%)	2(14%)	0(0%)	3(50%)	1(7%)	0(0%)	0(0%)	0(0%)	10(13%)
Advanced Practice Provider	0(0%)	0(0%)	1(8%)	0(0%)	0(0%)	2(33%)	0(0%)	0(0%)	0(0%)	0(0%)	3(6%)
Psychologist	0(0%)	3(43%)	3(25%)	2(14%)	1(13%)	1(17%)	3(21%)	1(15%)	1(2%)	0(0%)	15(20%)
Social Worker	1(100%)	4(57%)	9(75%)	11(79%)	6(75%)	3(50%)	10(72%)	4(57%)	4(100%)	1(33%)	53(70%)
Mental Health Counselor	0(0%)	6(86%)	12(100%)	14(100%)	5(63%)	4(67%)	12(86%)	7(100%)	4(100%)	3(100%)	67(88%)
School Nurse	0(0%)	2(29%)	2(17%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	4(5%)
Other	0(0%)	1(15%)	0(0%)	0(0%)	2(25%)	1(17%)	3(21%)	0(0%)	2(50%)	1(33%)	10(13%)

Note: Telehealth behavioral health providers include those working in telehealth-only and hybrid models. For hybrid models, respondents answered questions separately for in-person and telehealth services; participants' responses regarding the telehealth providers are included in the above table. Psychiatrists were physicians (MD/DO). Advanced Practice Providers included nurse practitioners and physician assistants/associates. Psychologists hold doctoral degrees (PhD or PsyD). Social workers (SW, MSW, LCSW, LCSW-A) and mental health counselors (MS, LCMHC, LMFT, LPC) were classified based on licensure/credentials. Others included but were not limited to the following: school counselors, school psychologists without doctoral degrees, interns (psychology and social work), behavioral specialists, substance use disorder specialists, and occupational, speech, or music therapists. The overall total includes one response that did not report the information necessary to identify the corresponding HRSA region. Frequency counts do not include missing data for behavioral health provider types. The types of behavioral health providers were not mutually exclusive; respondents could select all that apply. Percentages are calculated by column.

Figure 1. Distribution of Provider Type by Delivery Modality (In-person versus Telehealth)

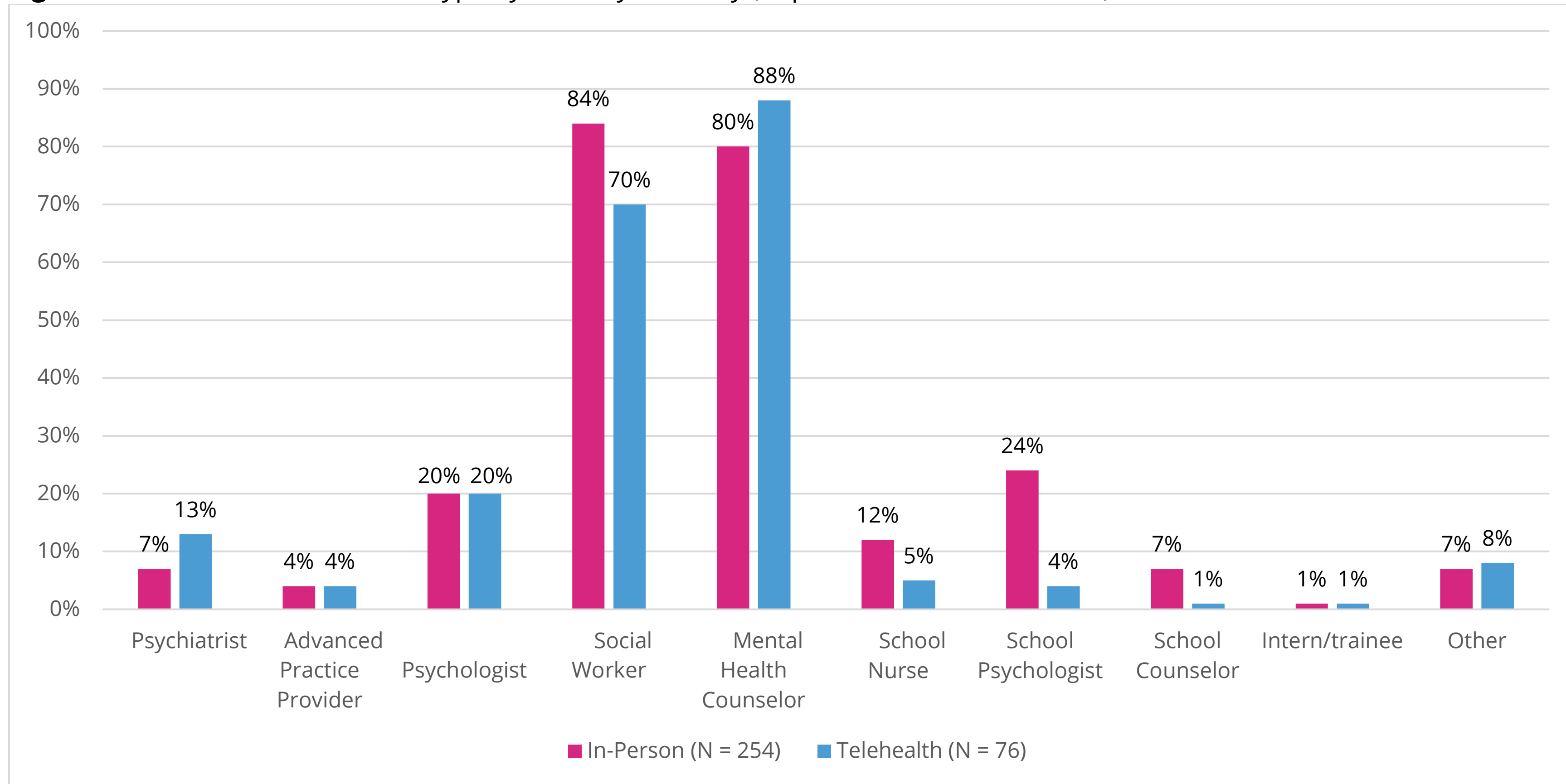

Figure 2. Proportion of School Districts' Budgets Allocated to SBBH Based on Delivery Modality