

Self-Reported Problems of Adolescents Seeking or Referred to School Mental Health Services

Eric J. Bruns, Kristine Lee, Michael D. Pullmann, Freda Liu, Janine Jones, Courtney A. Zulauf-McCurdy, Melissa Serafin, Rosemary Reyes, Casey Ehde; Elizabeth M. McCauley

Abstract

Examining self-reported problems of students receiving school mental health (SMH) services holds promise for informing strategies across all tiers of school support. However, no prior research has investigated students' self-reported needs. The current study coded open-ended youth problem statements ($N = 1212$) from a diverse sample of 455 students (37.4% white) receiving SMH services in 52 high schools across three states. Problem statements were coded against 120 items of the Child Behavior Checklist (CBCL, Achenbach & Rescorla, 2001) and 24 additional problem domains not found in the CBCL. Most frequently cited problems were poor schoolwork ($n=190$, 43.0% of all students), family problems ($n = 90$, 20.4%), and anxiety ($n = 89$, 20.1%). Thirty-three percent of students identified problems that loaded on the CBCL internalizing scale only, 24.0% identified problems from the externalizing scale only, 19.5% identified both internalizing and externalizing problems, and 21.3% of youth identified problems did not fit either scale. Exploration of differences by race/ethnicity found Latinx students were significantly more likely to report problems in school, White and Latinx students more likely to report internalizing problems, and Black students more likely to report problems coded to the externalizing scale. However, item-level analysis showed this difference was driven by a small number of specific items that may represent teacher bias in referrals, cultural differences in expression of problems, and/or limitations of the CBCL coding system. Results suggest SMH strategies are needed that address academic and family problems and that are responsive to needs of youth from diverse backgrounds.

Introduction

The past 15 years have witnessed an alarming increase in mental health disorders among youth (Twenge et al., 2019). The dual forces of an ongoing crisis in youth mental health paired with impacts of the pandemic have accelerated calls for improving access to mental healthcare for children and adolescents (The White House, 2023; U.S. Department of Health and Human Services, 2022). This ever-escalating concern underscores the need for effective, accessible services and supports to address the mental health needs of young people.

Schools have long been promoted as the most important setting in which to invest in mental health services to children and adolescents (Hoover & Bostic, 2021). Education and community mental health are, respectively, the two most common settings in which children and adolescents receive mental health services (Duong et al., 2021). However, schools offer unique advantages in terms of accessibility and early intervention (Bruns et al., 2016; Lyon et al., 2013).

Two primary strategies have been promoted: first, providing resources for schools to directly support students' mental health, including prevention, early intervention, and connection to more intensive

treatment when needed (*Tackling the Mental Health Impact of the COVID-19 Crisis*, 2021; The White House, 2023; U.S. Department of Health and Human Services, 2022), and second, better interconnecting community mental health and schools to facilitate access to help for students with identified needs (Barrett et al., 2013; Hoover et al., 2019). For both of these strategies, it is widely accepted that school-based services and supports should be organized via a Multi-Tiered System of Support (MTSS; McIntosh & Goodman, 2016). MTSS provides a comprehensive framework for universal school-wide strategies to prevent and identify students at risk of mental health challenges before they become serious (Tier 1); provide support at various levels of intensity – including tailored (Tier 2) and intensive (Tier 3) interventions; and ensure all students have access to support tailored to their level and type of need(s).

To provide mental health services effectively in school settings, including effectively connecting youth to more intensive school- and community-based services when needed, it is crucial to understand students' presenting problems or needs. The school context presents distinct challenges and opportunities compared to traditional mental health clinics. Primary among these, students referred for school mental health (SMH) services present with a broader array of needs and are less likely to have a specific mental health diagnosis. SMH practitioners thus need to be both flexible and fluent in a wider range of support strategies beyond those designed to address specific clinical disorders (Bearman et al., 2016; Bruns et al., 2019).

SMH also has been proposed as a means of reducing longstanding disparities in mental health access and utilization for some groups that have been historically under-served (Costello et al., 2014; Lyon et al., 2013; Stephan et al., 2007). However, greater access to care does not equate to effectiveness, and the research base on how SMH can best meet the needs of youth from diverse racial and ethnic backgrounds is only beginning to be developed (Jones, Lee, Matlack, & Zigarelli, 2018; Liu et al., 2022). Thus, a better understanding of how students' treatment needs vary by race and ethnicity may provide an opportunity to address disparities and bias and improve effectiveness of SMH services.

Understanding the Needs of Students Seeking Help

Understanding the types of problems identified across individuals seeking mental health services provides an opportunity to develop and/or select strategies and design systems of support for diverse clients served in a specific setting, such as schools (Wasil et al., 2021). With respect to the school context, better knowledge of top concerns of students referred to or seeking mental health support can also help translate strategies that may have originally been developed in one setting, such as clinics, to other settings, such as schools (Bruns et al., 2016; Kilgus et al., 2015).

There are various approaches to assessing clients' mental health needs, both for clinical service provision and research purposes. Standardized measures with fixed sets of empirically derived items, dimensions, and scales, such as the Child Behavior Checklist (CBCL; Achenbach et al., 2001), have been widely used. However, these measures may restrict the voice of the individual and miss concerns that fall outside standard mental health symptom taxonomies (Weisz et al., 2011). For example, Jacob et al. (2017) found that 26% of goals described by youth seeking outpatient services did not correspond to items on a commonly used standardized measure. Another study found that less than half of youth seeking mental health services in schools explicitly discussed having a mental health disorder using clinical terms, such as depression or anxiety (DeFosset et al., 2017).

Alternatively, individualized (also called idiographic) measures provide a structured approach to identifying and monitoring change as identified by clients themselves. From a treatment perspective, idiographic approaches potentially provide greater specificity, facilitate more targeted progress monitoring, and can improve rapport and alliance (Weisz et al., 2011). From a research perspective, such an approach to capturing presenting problems may be particularly important for settings such as schools, where young people have a

greater diversity of treatment needs than mental health symptoms and may be receiving care from helpers who are not licensed mental health practitioners.

Surprisingly, however, little to no research to date has used a rigorous method to document the problems reported by children and adolescents seeking or referred to SMH services. The few studies that have analyzed presenting problems as described in the words of youth and families have focused on youth referred to or served by specialty mental health clinics (e.g., Bradley et al., 2013; Cairns et al., 2019; Hawley & Weisz, 2003).

The Current Study

In this study, we sought to better understand the psychosocial concerns reported by high school students seeking or referred to school-based mental health services. To capture the breadth of students' needs, we analyzed data collected for a prior SMH research study that allowed students to express their presenting concerns "in their own words." Problems as reported by youth verbatim were then coded to match items from the CBCL. The CBCL was chosen because it is a commonly used and well-validated assessment with an extensive problem list and empirically based domain structure that assigns problems to narrow- and broad-band scales to help with data reduction and interpretation. Furthermore, a manualized and reliable system for coding idiographic, youth-reported problems to CBCL items (Yeh et al., 2011) already exists.

This project aimed to contribute to the development of more effective and culturally responsive SMH services by answering three questions: 1) What are the problems of greatest concern as reported by students who seek or are referred to school mental health services? 2) How well are the identified top problems captured by a well-established comprehensive standardized assessment (the CBCL)? And, as an exploratory aim, 3) How do youth-identified problems vary by student race, ethnicity, and gender?

Method

The current study relied on data on youths' self-reported "top problems" that were collected as part of a federally-funded efficacy trial of a four-session engagement, assessment, brief intervention, and triage strategy for school-based clinicians or counselors (see Bruns et al., 2023 for more details).

Participants

Schools

The study was conducted in 15 extremely heterogeneous public-school districts in 3 states: Maryland (13 schools in one urban and one suburban district), Minnesota (16 schools in one urban, 4 suburban, and 3 rural districts), and Washington (20 schools in 1 urban and four suburban districts). School enrollment ranged from 67 to 2,851 ($M = 1,434$, $SD = 696$); school-wide attendance ranged from 64.5% to 97.0% ($M = 90.9\%$, $SD = 6.3\%$). Students ranged from 1.2% to 90.6% White ($M = 47.7\%$, $SD = 23.5\%$); 0.03% to 89.6% low income as indicated by qualifying for free and reduced meals ($M = 31.3\%$, $SD = 26.3\%$); 6.7% to 72.5% passing standardized tests for Reading ($M = 42.3\%$, $SD = 14.2\%$); and 3.0% to 62% for Mathematics ($M = 39.9\%$, $SD = 16.4\%$).

Youth

Students were referred by SMHP to the study and enrolled from October 2016 – May 2018. Data were collected through November 2018. All students seeking or referred to services from SMHPs in participating

high schools were eligible for inclusion, with a few exceptions. Students were ineligible if they received individual therapy or counseling in the past year. Students in an acute crisis situation (e.g., risk of harm to self or others) were also excluded. Students had to be able to receive treatment and complete interviews in English; however, consent forms were translated and administered in Spanish so that students with Spanish-only speaking parents/legal guardians could be included.

Participating SMHPs referred 535 high school students seeking/referred to SMH services; after 78 students (14.6%) were excluded due to ineligibility or inability to obtain consent, a total of 455 students attending 49 participating schools were enrolled in the study. The mean number of students enrolled by school was 10.5 (SD = 9.5), with a range of 1-34. Thus, on average, our sample included approximately 0.7% of the student population in each participating school.

Table 1 Characteristics of Study Youth

	N	%
Total	455	100
Race/Ethnicity		
White	170	37.4
Black/ African-American	128	28.1
Latinx	61	13.4
Multiracial	54	11.9
Asian	21	4.6
Self-Described	8	1.8
American Indian/Alaska Native	6	1.3
Native Hawaiian/Pac Islander	6	1.3
Missing	1	0.2
Gender		
Female	304	66.8
Male	148	32.5
Non-binary or something else	3	0.7
Free or Reduced Lunch		
Eligible	277	60.9
Not Eligible	162	35.6
Not Specified	16	3.5
Grade		
9th	139	30.5
10th	113	24.8
11th	119	26.2
12th	84	18.5
Age(M, SD)	16.3	1.22

Measures

Student-identified Top Problems

The Youth Top Problem Assessment (YTPA; Weisz et al., 2011) asks youths to identify “The three most important problems for which you need help.” The measure goes on to assess seriousness of up to 3 identified problems using a scale from 0 (“Not serious at all”) to 10 (“Very serious problem”); however, given our research aims, these ratings were not used in the current study. As a symptom and outcome measure, the YTPA significantly correlates with established symptom and functioning measures but with greater sensitivity to change (Weisz et al., 2011). When YTPA responses were coded with a system based on the Child Behavior Checklist (CBCL; Achenbach et al., 2001), the coded response sets demonstrated good test-retest reliability ($r = .69$ to $.91$ for CBCL-congruent internalizing and externalizing broadband scores; all $p < .01$; Weisz et al., 2011). Regarding validity, 79% of youth-identified top problems were found to match top problems from a caregiver version of the YTPA. Correlation of scores from the YTPA and the Youth Self Report (YSR) has found to be $r = .33$ and $.37$ (for internalizing and externalizing, respectively) (Weisz et al., 2011).

Mental Health Symptoms and Functioning

To evaluate the concordance between youth-identified top problems and standardized measures of youth mental health symptoms, we used data from four measures from the efficacy study, collected at baseline. Because these measures are well-validated and widely used and were only used for this purpose, descriptions have been kept brief.

Mental health problems. The Brief Problem Checklist (BPC; Chorpita et al., 2010) is a youth reported, 12-item questionnaire adapted from items on the Youth Self-Report (YSR; Achenbach et al., 2001). Response options are on a 3-point scale, from 0 (“not true”) to 2 (“very true”). Results are summed into total, internalizing, and externalizing subscales, with good internal consistency and test-retest reliability for each. Validity tests found correlations with the YSR above $r = .60$ and correlations with the caregiver-reported CBCL above $r = .50$ as well as significant associations with diagnoses obtained from a structured diagnostic interview (K. D. Becker et al., 2013).

Depressive symptoms. The Patient Health Questionnaire (PHQ-9; Richardson et al., 2010) is a self-report measure that queries about the presence of depressive symptoms over the past two weeks. The PHQ-9 consists of 9 items on a 4-point scale from 0 (“not at all”) to 3 (“nearly every day”). Validity tests for the PHQ-9 have shown good sensitivity (.90) and specificity (.79) for identifying individuals who meet criteria for major depression on the Diagnostic Interview Schedule-IV, with similar associations with other well-validated instruments (Richardson et al., 2010).

Anxiety symptoms. The Generalized Anxiety Disorder Scale (GAD-7; Spitzer et al., 2006) is a 7-item scale that queries about anxiety symptoms over the past two weeks using a 4-point scale from 0 (“not at all”) to 3 (“nearly every day”). Interrater and test-retest reliability has been found to be good with validity well-established via high correlations with other well-validated measures (Spitzer et al., 2006). The GAD-7 also has been found to have good sensitivity (.89) and specificity (.82) when tested against a full diagnostic psychiatric interview.

Adaptive functioning. The Columbia Impairment Scale (CIS; Singer et al., 2011) is a 13-item scale that measures adolescents’ level of adaptive functioning on a 5-point scale from 0 (“no problem”) to 4 (“very big problem”). The CIS has showed good internal reliability ($\alpha = .80-.89$) and has demonstrated moderate construct validity with structured DMS diagnoses ($\kappa = .48$; Singer et al., 2011).

Taxonomy of Youth Self-Reported Problems

Although data were not collected using the measure, the Child Behavior Checklist/6-18 (CBCL, Achenbach et al., 2001) was used as the basis for coding youth self-reported problems and examining the concordance between self-reported problems and items on a comprehensive symptom measure. The CBCL is a 120-item standardized measure designed to assess behavioral issues in youth ages 6 through 18 on a three-point response scale. CBCL items characterize common problem areas in youth across 8 empirically-derived “narrow-band” subscales: (a) Anxious/Depressed (13 items; e.g., “Cries a lot”), (b) Withdrawn/Depressed (eight items; e.g., “Very little he/she enjoys”), (c) Somatic Complaints (11 items; e.g., “Feels dizzy or lightheaded”), (d) Social Problems (11 items; e.g., “Clings on adults or too dependent”), (e) Thought Problems (15 items; e.g., “Can’t get his or her mind of certain thoughts”), (f) Attention Problems (10 items; e.g., “Can’t sit still, restless, or hyperactive”), (g) Rule-Breaking Behavior (17 items; e.g., “Doesn’t seem to feel guilty after misbehaving”), and (h) Aggressive Behavior (18 items; e.g., “Argues a lot”). In addition, the CBCL produces two “broad-band” scales: Internalizing Problem scores (Anxious/ Depressed, Withdrawn/Depressed, and Somatic Complaints) and Externalizing Problem scores (Rule-Breaking Behavior and Aggressive Behavior).

Procedures

Study procedures were approved by the Institutional Review Board at the University of Washington. Informed consent was obtained from parents/caregivers and study assent was received from students. Students completed YTPA and symptom measures via interviews at baseline, 2, and 6 months; however, only baseline measures were used in the current study.

Coding

We developed a coding manual based on a manual developed by the authors of the YTPA. The original coding manual (Yeh et al., 2011) assigns student open-ended descriptions of problems to one or more of 112 CBCL items. For example, a student who states their top problem is “I am always nervous about talking to people” would be coded as the CBCL item “Too fearful or anxious”. The original manual also includes 23 additional codes corresponding to problems reported by youth in earlier studies that do not correspond to CBCL items (e.g., “Time management/procrastination”).

A team of three coders (2nd, 8th, 9th authors) supervised by the third author iteratively coded a total of 80 randomly selected top problems in batches of 20 using this manual. Coders assigned each problem to up to three codes. During this process, we revised the coding manual by adding, revisiting and revising the coding manual by adding examples, clarifying look-alike codes, developing 9 new codes for emergent themes, and 8 school-specific problem subcodes to provide more insight on this frequently surfaced problem area. Combining the 112 CBCL items with additional codes from the original manual plus those developed by our coding team, the final coding manual included 152 possible codes.

Because of the length of the coding manual and the complexity of codes, we took a combined double-coding and consensus-based approach. After removing the 80 training codes, a total of N=1,212 “top problems” for N=455 youths enrolled in the study were double coded by pairs of coders who were masked to all other corresponding data including study condition and participant demographics. A match was obtained for N=983 (81.1%) of top problems coded, while N=229 (18.9%) did not match. Most coding disagreements were the result of coding top problems to CBCL items that are similar, such as “unhappy, sad, or depressed” versus “feels worthless or inferior.”

Coder inter-rater reliability. Inter-rater reliability was found to be “moderate” (Cohen’s Kappa = .614) by conventional standards (Cyr & Francis, 1992); however, given the very large number of possible codes and the high degree of similarity among many of the codes from the CBCL, we considered this level of agreement to be quite good. Moreover, even when not achieving a perfect match, nearly all top problems for which there was a disagreement in CBCL-derived item-level codes aggregate to the same broad-band scales and narrow-band syndrome subscales. Regardless, to ensure perfect agreement, after interrater reliability was assessed any items without perfect coder agreement were assigned a final code via consensus dialogue including all coders and the third author.

Validity of coding assignments. Convergent and divergent validity of coding assignments was tested by comparing our coded YTPA results against scores on four commonly used and validated measures of youth emotions and behaviors: the BPC (Chorpita et al., 2010), GAD-7 (Spitzer et al., 2006), PHQ-9 (Richardson et al., 2010), and CIS (Singer et al., 2011). To do this, we categorized youth into four groups aligned with the CBCL symptom taxonomy: (1) internalizing-only, (2) externalizing-only, (3) both, or (4) neither. We then computed ANOVAs examining the mean scores on the BPC total, BPC internalizing, BPC externalizing, GAD-7, PHQ-9, and CIS (see Table 2). All ANOVAs were statistically significant; youth categorized into the “internalizing only” group based on reported top problems showed significantly higher scores on internalizing scales (e.g., PHQ-9, GAD-7) and subscales (e.g., BPC internalizing) and lower scores on the BPC externalizing scale, thus demonstrating convergent and divergent validity. Furthermore, youth with both internalizing and externalizing problems from the YTPA showed significantly higher mean scores on measures such as the BPC and CIS; youth whose problems corresponded to neither broad-band scale demonstrated the lowest mean scores on these measures.

Table 2 Association of YTPA Item Correspondence with Mean Scores on CBCL Broadband Scales and other Measures of Functioning

	Internalizing only M(SD) n = 154	Externalizing only M(SD) n = 110	Internalizing and Externalizing M(SD) n = 92	Neither M(SD) n = 98	Grand mean (SD)	F	p
<i>Brief Problem Checklist</i>							
Internalizing ^a , c, ct	1.01 (0.51)	0.68 (0.53)	1.05 (0.52)	0.72 (0.48)	0.88 (0.53)	15.27	<.001
Externalizing ^a , b e, f	0.46 (0.33)	0.68 (0.43)	0.70 (0.38)	0.50 (0.34)	0.56 (0.38)	13.09	<.001
Total score ^b , c, ct f	0.73 (0.35)	0.68 (0.40)	0.88 (0.35)	0.61 (0.35)	0.72 (0.37)	9.18	<.001
<i>GAD-7 Total</i> ^a , c, , ct f	10.81 (5.27)	8.79 (5.20)	12.04 (5.33)	8.84 (5.48)	10.15 (5.45)	9.10	<.001
<i>PHQ-8 Total</i> ^a , c, , ct f	11.43 (6.02)	9.41 (6.27)	12.41 (6.21)	9.19 (5.92)	10.65 (6.21)	6.81	<.001
<i>CIS Total</i> ^a , b, ct f	15.82 (8.25)	16.64 (10.05)	20.49 (9.48)	14.80 (8.63)	16.75 (9.24)	7.31	<.001

Pairwise comparisons using Bonferroni correction are significant at $p < .05$ for: ^ainternalizing only vs. externalizing only, ^binternalizing only vs. internalizing and externalizing, ^cinternalizing only vs. neither, ^dexternalizing only vs. internalizing and externalizing, ^eexternalizing only vs. neither, ^finternalizing and externalizing vs. neither

Subscale assignment. As described above, the CBCL provides an empirically-based taxonomy whereby items correspond to broad-band scales (Externalizing/Internalizing) and narrow-band syndrome subscales (e.g., “attention problems”) (Achenbach et al., 2001). Based on data collected from youth using the YTPA, the YTPA developers added additional subscales corresponding to items that were not among existing CBCL items or scales. We used this information to create new subscales (e.g., “environmental stressors/family problems” and “problems with daily living”).

Analyses

All analyses were conducted using SPSS version 19. Descriptive analyses were conducted to identify the frequency and percentage for every YTPA code, and these were stratified by male and female identified youth. Crosstabulations with chi-square tests were computed to explore racial differences by the CBCL broadband scale scores, CBCL narrow-band syndrome scales, non-CBCL code clusters, and school-specific problem subcodes. For each omnibus test, we computed Benjamini-Hochberg False Discovery Rate (FDR) statistics to avoid Type I errors, setting the FDR at 10%. All statistically significant ($p < .05$) analyses reported here remained significant after this adjustment.

For codes that were omnibus significant, we computed adjusted standardized residuals for each cell to identify which groups had significantly higher or lower proportions than expected by chance, based on scores greater than 1.96 or less than -1.96. To better understand racial differences, statistically significant subscale scores were examined with post-hoc crosstabulations of race by item endorsement using chi-square tests. Because smaller differences on each item can aggregate to large differences on the overall scale, we report on all items with p -values $< .15$ for broader exploration. Crosstabulations with chi-square tests were computed to explore race x gender interactions on categorized broadband scale scores. For this analysis we inferred significance when the adjusted standardized residuals for individual cells were larger than absolute value of 1.96.

Results

All data were collected at baseline; since baseline data collection was a requirement for participation in the study, there were no missing data. Among the 455 participants, 385 (84.8%) endorsed three top problems, 59 (12.8%) endorsed two, and 11 (2.4%) endorsed one, for a total of 1,284 top problems. These 1,284 endorsements were coded into 1,292 individual problem codes (eight endorsements received two separate codes each).

Types of Problems Reported by Students

As shown in Table 3, eight types of problems were reported by 10% or more of youth: "poor schoolwork" ($n = 190$, 43% of all students), "family problems" ($n = 90$, 20.4%), "too fearful or anxious" ($n = 89$, 20.1%), "tantrums or hot temper" ($n = 66$, 14.9%), "does not get along with other kids" ($n = 52$, 11.8%), "unhappy, sad or depressed" ($n = 52$, 11.8%), "coping, self-regulation, controlling emotions" ($n = 46$, 10.4%), and "feels worthless or inferior" ($n = 44$, 10.0%). Eleven additional problems were identified by at least 5% of youth, and 61 items were identified by at least one youth.

Table 3 Youth Top Problem Assessment Codes Aligned with All CBCL Items, Sorted by Frequency

	CBCL	Total N=455		Male n= 148		Female n=304	
		N	%	N	%	N	%
Poor schoolwork	Yes	190	43.0	71	48.0	131	43.1
Family problems	No	90	20.4	23	15.5	69	22.7
Too fearful or anxious	Yes	89	20.1	18	12.2	72	23.7
Tantrums or hot temper	Yes	66	14.9	25	16.9	44	14.5
Does not get along with other kids	Yes	52	11.8	15	10.1	42	13.8
Unhappy, sad, or depressed	Yes	52	11.8	17	11.5	36	11.8
Coping, self-regulation, emotions	No	46	10.4	8	5.4	38	12.5
Feels worthless or inferior	Yes	44	10.0	12	8.1	31	10.2
Cannot concentrate or pay attention	Yes	38	8.6	16	10.8	25	8.2
Time management/procrastination	No	38	8.6	10	6.8	27	8.9
Worries	Yes	36	8.1	9	6.1	27	8.9
Nervous, high strung, or tense	Yes	33	7.5	10	6.8	26	8.6
Stubborn, sullen, or irritable	Yes	33	7.5	8	5.4	26	8.6
Underactive, slow moving, lacks energy	Yes	30	6.8	8	5.4	25	8.2
Disobedient at school	Yes	29	6.6	11	7.4	17	5.6
Relationships	No	28	6.3	6	4.1	23	7.6
Disobedient at home	Yes	24	5.4	13	8.8	13	4.3
Argues a lot	Yes	23	5.2	11	7.4	13	4.3
Problems in the child's environment	No	23	5.2	7	4.7	16	5.3
Impulsive or acts without thinking	Yes	21	4.8	10	6.8	12	3.9
Refuses to talk	Yes	21	4.8	4	2.7	20	6.6
Truancy/skips school	Yes	20	4.5	9	6.1	13	4.3
Cannot get mind off certain thoughts	Yes	18	4.1	2	1.4	16	5.3
Secretive, keeps things to self	Yes	15	3.4	2	1.4	14	4.6
Trouble sleeping	Yes	14	3.2	8	5.4	7	2.3
Sudden changes in mood or feelings	Yes	12	2.7	3	2.0	11	3.6
Withdrawn, not involved with others	Yes	12	2.7	3	2.0	11	3.6
Acquire/continue skill/hobby/activity	No	11	2.5	7	4.7	4	1.3
Self-conscious or easily embarrassed	Yes	10	2.3	3	2.0	7	2.3
Post-secondary options	No	10	2.3	5	3.4	6	2.0
Loss or death of someone/something	No	9	2.0	2	1.4	7	2.3
Work/job issues	No	9	2.0	6	4.1	3	1.0
Accepting and reaching out for help	No	9	2.0	2	1.4	8	2.6
Shy or timid	Yes	8	1.8	4	2.7	5	1.6
Suspicious	Yes	8	1.8		0.7	7	2.3
Monetary/financial concern	No	8	1.8	2	1.4	6	2.0
Maladapted, have/has problems	No	8	1.8	3	2.0	6	2.0
General physical health	No	8	1.8		0.7	7	2.3
Inattentive or easily distracted	Yes	7	1.6	3	2.0	4	1.3
Complains of loneliness	Yes	6	1.4	1	0.7	5	1.6
Swearing or obscene language	Yes	6	1.4	3	2.0	3	1.0
Does not eat well	Yes	5	1.1	3	2.0	2	0.7
Sleeps more than most kids	Yes	5	1.1	0	0.0	5	1.6
Wants/needs something tangible or material goods	No	5	1.1	3	2.0	2	0.7
Feels he/she has to be perfect	Yes	4	0.9	0	0.0	4	1.3
Gets in many fights	Yes	4	0.9		0.7	3	1.0
Sleeps less than most kids	Yes	4	0.9		0.7	3	1.0
Uses drugs for non-medical purposes	Yes	4	0.9	2	1.4	2	0.7
Trauma	No	4	0.9		0.7	3	1.0

Table 3 (continued)

	CBCL	Total N=455		Male n = 148		Female n = 304	
		N	%	N	%	N	%
Therapy mediators	No	4	0.9	2	1.4	2	0.7
Cannot sit still, restless, or hyperactive	Yes	3	0.7		0.7	2	0.7
Cruelty, bullying, or meanness to others	Yes	3	0.7		0.7	2	0.7
Gets teased a lot	Yes	3	0.7 %	1	0.7	2	0.7
Hangs around with others get in trouble	Yes	3	0.7%	2	1.4	2	0.7
Fee ls too guilty	Yes	3	0.7	0	0.0	2	0.7
Overweight	Yes	3	0.7	0	0.0	3	1.0
Molested, raped, abused	No	3	0.7		0.7	2	0.7
Deliberately harms self/attempt suicide	Yes	2	0.5		0.7		0.3
Demands a lot of attention	Yes	2	0.5	1	0.7	2	0.7
Screams a lot	Yes	2	0.5	0	0.0	2	0.7
Medication, needs medical attention	No	2	0.5	2	1.4	0	0.0
Uncodable	No	2	0.5	2	1.4	0	0.0
Sexuality	No	2	0.5		0.7	1	0.3
Fails to finish things	Yes		0.2	0	0.0	0	0.0
Cries a lot	Yes		0.2	0	0.0	1	0.3
Would rather be alone than with others	Yes		0.2	1	0.7	0	0.0
Overeating	Yes		0.2	0	0.0		0.3
Physical problems wo known med cause	Yes		0.2	0	0.0		0.3
Physically attacks people	Yes		0.2	0	0.0		0.3
Sexual problems	Yes		0.2	0	0.0		0.3
Speech problem	Yes		0.2	0	0.0		0.3
Talks too much	Yes		0.2		0.7	0	0.0
Smokes, chews, or sniffs tobacco	Yes		0.2	1	0.7	0	0.0
Wishes to be of opposite sex	Yes		0.2	0	0.0	1	0.3
Not understanding /know my problems	No		0.2		0.7	0	0.0
Asked for treatment/therapy/counseling	No		0.2	1	0.7	0	0.0
Social media	No		0.2	0	0.0	2	0.7
Body image	No		0.2	0	0.0		0.3

CBCL = Child Behavior Checklist

CBCL items that did not receive a single corresponding youth top problem include: Acts too young for age; Drinks alcohol without parents' approval; Little s/he enjoys; Bowel movements outside toilet; Bragging/boasting; Clings to adults or too dependent; Confused or in a fog; Cruel to animals; Day-dreams or gets lost in thoughts; Destroys own thing s; Destroys things belonging to family or others; Does not seem to feel guilty after misbehaving; Easily jealous; Breaks rules at home, school, or elsewhere; Fears certain animals, situations, or places outside school; Fears going to school; Fears he/she might think or do some- thing bad; Feels no one loves hi m/her; Feel others are out to get me; Gets hurt a lot, accident prone; Hears sounds or voices that are not there; Lying or cheating; Bites fingernails; Nervous movements or twitching; Nightmares; Not liked by other kids; Constipated, doesn't move bowels; Feels dizzy; Overtired; Picks nose, skin, or other parts of body; Plays with own sex parts in public; Plays with own sex parts too much; Poorly coordinated or clumsy; Prefers being with older kids; Prefers being with young er kids; Repeats certain acts over and over; compulsions; Runs away from home; Sees things that are not there; Sets fires; Showing off or clowning; Stares blankly; Steals at home; Seals outside the home; Stores up things he/she does not need; Strange behavior; Strange ideas; Sulks a lot; Talks about killing self; Talks or walks in sleep; Teases a lot; Thinks about sex too much; Threatens people; Thumb-sucking; Unusually loud; Vandalism; Wets self during the day; Wets the bed; Whining

n = 3 participants who identified as something other than male or female were excluded from the gender columns due to small sample size. They endorsed problems consistent with "Disobedient at school" (n = 1), "Feels worthless or inferior" (n = 2), "Nervous, high strung, or tense" (n = 1), "Too fearful or anxious" (n = 1), "Feels to o guilty" (n = 1), "Unhappy, sad, or depressed" (n = 1), "Worries" (n = 1), and "Coping, self-regulation, controlling emotions" (n = 1)

Degree to which Top Problems Align with CBCL

Table 3 presents the 54 CBCL items (out of 112; 48.2%) represented by at least one coded problem. The Note in Table 3 presents the 58 CBCL items (51.8%) that were not reported by any participants. CBCL items that were not captured included (1) items unlikely to be self-reported by adolescents (e.g., wets the bed, thumb-sucking); (2) very specific symptoms that seem unlikely to be reported as a reason for therapy (e.g., bites fingernails, constipated); or (3) very severe and low occurrence problems (e.g., sets fires, talks about killing self).

An additional 24 codes not among the CBCL items were endorsed by at least one participant. Fifteen of these codes had been added by the developers of the YTPA and 9 added by the current team. Added codes provide additional details on (1) schoolwork problems; (2) family problems; (3) coping, self-regulation, and controlling emotions; (4) time management/procrastination; (5) relationship problems; and (6) problems in the youth's environment. Two of these codes (coping with emotions/self-regulation and procrastination/time management) were among the 10 most frequently identified problems.

Variations in youth-identified problems by student race, ethnicity, and gender

Differences in broadband scores by race/ethnicity

Table 4 includes an overview of differences in broadband scores by the 5 racial/ethnic categories with at least 20 students in the sample. For overall broadband scores, Latinx and White students were significantly more likely to report problems that coded to internalizing only and Black students were less likely. White students were less likely and Black students more likely to report problems that were coded to externalizing only. A summary is provided in Figure 1.

Table 4 Number and Percent of Students Endorsing YTPA Problems Aligned with CBCL Narrow-band and Broadband Sub scales, by Race/ Ethnicity

	Total N=442		Asian n=21		Black n=128		White n=170		Latinx n=61		Multira- cial n=54		Chi-s quare	p-value
	N	%	N	%	N	%	N	%	N	%	N	%		
School- related Subcodes														
Academic achievement	100	22.6		4.8b	33	25.8	34	20.0	22	36.1"	10	18.5	11.84	.019
Homework and class assignments	57	12.9	3	14.3	10	7.8	26	15.3	8	13.1	10	18.5	5.27	.261
Motivation, procrastination, time management	45	10.2	4	19.0	10	7.8	19	11.2	4	5.6	8	14.8	4.82	.306
Specific subjects or extracurriculars	27	6.1	0	0.0	11	8.6	7	4.1	3	4.9	6	11.1	6.31	.177
Knowledge and skill s	17	3.8	2	9.5	6	4.7	7	4.1	0	0.0	2	3.7	4.47	.346
Test taking	6	1.4	0	0.0	2	1.6	4	2.4	0	0.0	0	0.0	3.11	.539
Othe r	6	1.4	0	0.0	0	0.0	2	1.2	3	4.9	1	1.9	7.8	.098
School culture	5	1.1	0	0.0	4	3.1	0	0.0		1.6	0	0.0	7.36	.118
CBCL Syndrome Scales														
Attention Problems Syndrome	236	53.4	11	52.4	69	53.9	92	54.1	33	54.1	31	57.4	.25	.993
Aggressive Behavior syndrome	172	38.9	6	28.6	63	49.2"	54	31.8b	24	39.3	25	46.3	11.39	.022
Anxious/Depressed Syndrome	168	38.0	6	28.6	36	28.1b	83	48.8"	28	45.9	15	27.8	18.33	.001
Withdrawn Depressed Syndrome	122	27.6	6	28.6	26	20.3	52	30.6	19	31.1	19	35.2	5.99	.200

YOUTH PROBLEMS IN SCHOOL MENTAL HEALTH 12

Social Problems Syndrome	61	13.8	3	14.3	16	12.5	29	17.1	6	9.8	7	13.0	2.48	.648
Thought Problems Syndrome	36	8.1	5	23.8"	6	4.7	18	10.6	1	1.6b	6	11.1	14.13	.007
Rule-Breaking Syndrome	35	7.9	1	4.8	10	7.8	13	7.6	8	13.1	3	5.6	2.92	.572
Somatic Complaints Syndrome		0.2	0	0.0	0	0.0		0.6	0	0.0	0	0.0	1.56	.817
Broadband scale score categorized													26.96	.008
Internalizing only	146	33.0	7	33.3	25	19.5b	72	42.4"	27	44.3"	15	27.8		
Externalizing only	106	24.0	4	19.0	43	33.6"	33	19.4b	13	21.3	13	24.1		
Neither Internalizing nor Externalizing	95	21.5	7	33.3	33	25.8	35	20.6	8	13.1	12	22.2		
Internalizing and Externalizing	87	19.7	3	14.3	27	21.1	30	17.6	13	21.3	14	25.9		

All other race categories excluded due to small sample sizes. All Chi-square $df = 4$, except Broadband scale score categorized which $df = 12$. Benjamini- Hochberg False Discovery Rate (FDR) statistics were computed with the FDR at 10%. All statistically significant ($p < .05$) analyses reported here remained significant after this adjustment. "Standardized Adjusted Residual > 1.96 , indicating the group was overrepresented. ^bStandardized Adjusted Residual < -1.96 , indicating the group was underrepresented

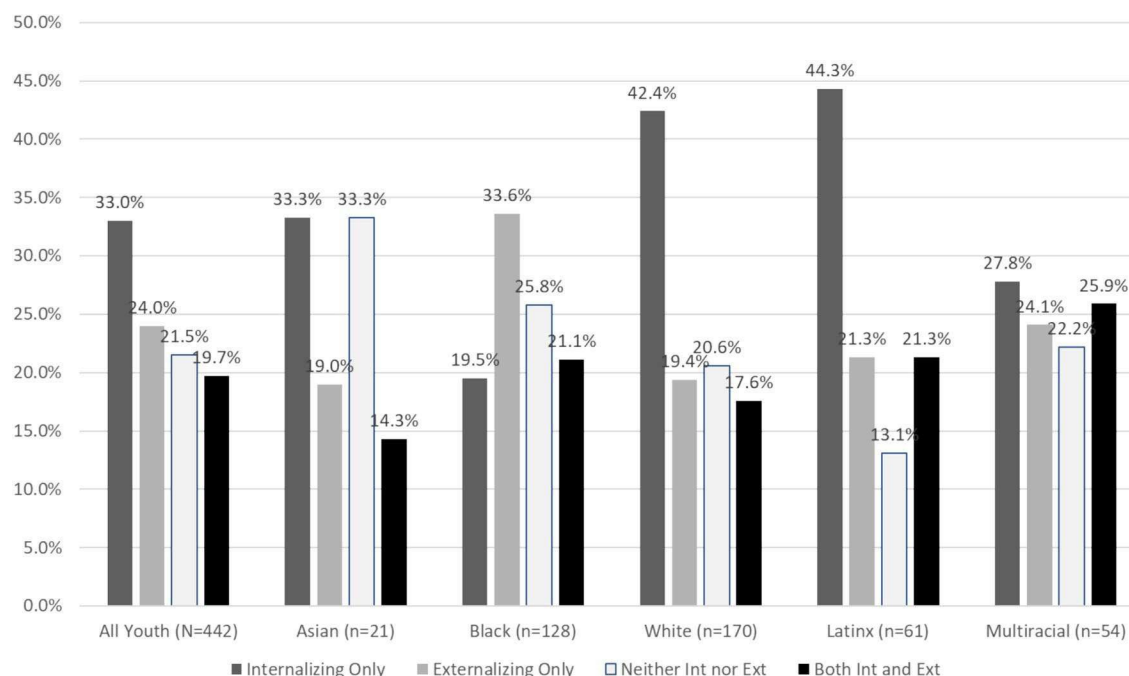


Fig. 1 Types of top problems reported by youth by CBCL broadband scale and race

Table 4 also provides a summary of the number and percent of students who reported top problems that aligned with all CBCL scales or school-specific subcodes. Significant differences by race/ethnicity were found for four categories: (1) academic problems (Asian students were less likely to report, Latinx students were more likely to report); (2) anxious-depressed (Black students less likely; White students more likely); (3) aggressive behavior (White students less likely, Black students more likely) and (4) thought problems (Latinx students less likely, Asian students more likely).

Differences in individual items by race/ethnicity

Table 5 presents post hoc analyses that illustrate the items within these subscales that made the strongest contributions to the subscale differences. For the anxious-depressed subscale, Black students were less likely to report problems with being “too fearful or anxious” and White students were more likely to report problems with being “too fearful or anxious” and “self-conscious or easily embarrassed”. Nine other items had no differences or were not reported by any youth. Fourteen other items had no significant differences or were not reported by any youth. For the aggression subscale, Black students were more likely to report problems with “tantrums or hot temper” and “stubborn, sullen, or irritable,” White students were less likely to report problems with “tantrums or hot temper,” and Latinx students were more likely to report problems with “disobedient at school”. Nine other items had no differences or were not reported by any youth. Though they are presented in Table 5, results of Asian students were not interpreted given extremely low ns in each cell.

Table 5 Race by Item Crosstabulations for Significant Syndrome Subscales

	Total N=442		Asian n=21		Black n=128		White n=170		Latinx n=61		Multi- racial n = 54		Chi-square	p-value
	N	%	N	%	N	%	N	%	N	%	N	%		
<i>Anxious/Depressed subscale</i>														
Cries a lot	1	0.2	1	4.8a	0	0	0	0	0	0	0	0	19.71	< .001
Too fearful or anxious	89	20.5	3	14.3	16	12.5b	48	28.2% ^c	12	19.7	10	18.5	11.92	.018
Nervous, high strung, or tense	33	7.6	0	0	8	6.3	17	10.0	7	11.5	1	1.9	7.30	.121
Self-conscious or easily embarrassed	10	2.3	0	0		0.8	8	4.7 ^c		1.6	0	0	7.56	.109
<i>Thought problems subscale</i>														
Cannot get mind off certain thoughts	18	4.1	3	14.3a	2	1.6	10	5.9	0	0	3	5.6	11.78	.019
<i>Aggression subscale</i>														
Tantrums or hot temper	66	15.2	4	19.0	28	21.9 ^d	19	11.2b	6	9.8	9	16.7	8.25	.083
Stubborn, sullen, or irritable	33	7.6	1	4.8	15	11.7 ^d	8	4.7	3	4.9	6	11.1	6.93	.140
Disobedient at school	29	6.7	0	0	11	8.6	7	4.1	8	13.1a	3	5.6	8.21	.084

Benjamini-Hochberg False Discovery Rate (FDR) statistics were computed with the FDR at 10%. All statistically significant ($p < .05$) analyses reported here remained significant after this adjustment. ^aStandardized Adjusted Residual > 1.96, indicating the group was overrepresented. ^bStandardized Adjusted Residual < -1.96, indicating the group was underrepresented. ^cItems that were not significantly different by race at $p < .15$ or not endorsed by anyone include feels worthless or inferior; feels too guilty; talks about killing self; worries; feels s/he has to be perfect; fears certain animals, situations, or places; fears going to school; fears s/he might do or think something bad; feels no one loves him/her. ^dItems that were not significantly different by race at $p < .15$ or not endorsed by anyone include trouble sleeping; deliberately harms self or attempts suicide; sleeps less than most kids; hears sounds or voices that are not there; nervous movements or twitching; picks nose, skin, or other parts of body; plays with own sex parts in public; plays with own sex parts too much; repeats certain acts over and over; sees things that are not there; stores up things s/he does not need; strange behavior; strange ideas; talks or walks in sleep. ^eItems that were not significantly different by race at $p < .15$ or not endorsed by anyone include disobedient at home; argues a lot; sudden changes in mood or feelings; suspicious; gets in many fights; cruelty, bullying, or meanness to others; demands a lot of attention; screams a lot; physically attacks people; destroys own things; destroys things belonging to family or others; sulks a lot; teases a lot; threatens people; unusually loud

Differences in broadband scores by race/ethnicity and gender

Table 6 provides the number and percent of students reporting at least one problem aligned with CBCL broadband scale scores, by race/ethnicity and gender categories with $n > 20$. Problems reported by Black males were significantly less likely to be internalizing and more likely to be externalizing. Problems reported by Black females were less likely to be internalizing. Problems reported by White males were less likely to be both internalizing and externalizing and more likely to be neither internalizing nor externalizing. Problems reported by White females were more likely to be internalizing, less likely to be externalizing, and less likely to be neither internalizing nor externalizing. Finally, problems reported by Latinx females were less likely to be neither internalizing nor externalizing

Table 6 Race by Gender by CBCL Broadband Scale Aligned with Youth Top Problem Assessment-Identified Problem

Label	Total		Black				White				Latinx			
			Male (n= 50)		Female (n= 78)		Male (n= 52)		Female (n= 116)		Male (n=20)		Female (n=60)	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<i>Broadband scale score categorized</i>														
Internalizing only	122	34.3	6	12.0 ^b	19	24.4 ^b	18	34.6	52	44.8 ^a	6	30.0	21	52.5 ^a
Externalizing only	89	25.0	25	50.0 ^a	18	23.1	12	23.1	21	18.1 ^b	4	20.0	9	15.0
Internalizing and Externalizing	69	19.4	8	16.0	19	24.4	5	9.6 ^b	25	21.6	5	25.0	7	11.7
Neither Internalizing or Externalizing	76	21.3	11	22.0	22	28.2	17	32.7 ^a	18	15.5 ^b	5	25.0	3	5.0 ^b

All other race categories excluded due to small sample sizes. $\chi^2(15)=47.38, p<.001$. ^aStandardized Adjusted Residual > 1.96, indicating the group was overrepresented. ^bStandardized Adjusted Residual < -1.96, indicating the group was underrepresented

Discussion

Recent surveys have found that educators believe social media-driven bullying and body image concerns are the greatest causes of mental health distress in high school students, while student surveys identify stress related to schoolwork, homework, and grades (Prothero, 2023). The current study reinforces students' reports from broad-based surveys and contradicts educators' perceptions, finding that the CBCL item "poor schoolwork" was used to describe one or more problems for 43.0% of all students seeking SMH services. This code was by far the most frequently assigned of all codes used in the study. Within this category, subcodes for "achievement" issues such as grades (22.6%), "homework and assignments" (12.9%), and "motivation, procrastination or time management" (10.2%) were most common. After school problems, "family problems" was found to be the second most common problem type, and "too fearful or anxious" a close third.

These findings are similar to self-reported problems of youth receiving clinic-based mental health treatment, where schoolwork was found to be the first and third most common goal for therapy by Hawley & Weisz (2003) and Cairns et al. (2019), respectively. These studies, and one by Bradley et al (2013), also all found relationship issues to be among the top three problems for clinic-based

treatment. However, the reported rate of school and relationship problems for school services in the current study was far greater than for studies of clinic-based care.

The pattern is further reinforced by findings from a study that analyzed data from the 2012-15 National Survey on Drug Use and Health. Ali and colleagues (2019) found that youth who received mental health services in school were 3-6 times more likely to seek help for relationship or school issues than youth who received services in non-educational (e.g., medical or clinic) settings. By contrast, youth who received treatment in non-educational settings were significantly more likely to present with suicidal ideation and/or to be diagnosed with a mental health disorder.

Mental Health Symptoms

Of the problems that could be categorized on CBCL symptom scales, the current study found that internalizing symptoms – alone (33.0%) or in combination with externalizing disorders (19.7%) – were the most common psychological concerns among students seeking services in schools, with CBCL items related to depression such as “unhappy, sad, or depressed” and “feels worthless or inferior” being commonly endorsed, along with anxiety items such as “too fearful or anxious” and “worries.” These results also align somewhat with those of Ali et al. (2019), who found that, among 13 categories, feeling depressed (20% of all youth) was the most common problem of youth receiving services in schools, with school problems second (14% of all youth). Thus, although the specific problems differed across these studies, the prominence of internalizing problems is consistent.

At the same time, 43.7% of all students reported at least one problem coded as “Externalizing” using the rubric of the CBCL. Among codes used in the study, “hot temper” was the most common externalizing problem, followed by problems that coded to “stubborn, sullen, or irritable” and “disobedient at school.” Among the relevant narrow-band subscales of the CBCL, youth problems were far more likely to load on the “Aggressive Problems” syndrome (38.9% of all students) as opposed the “Rule-breaking” syndrome (7.9%). Within the rule-breaking syndrome, the most common problem was “Truancy or skips school” (4.5% of all students).

Alignment of Problems to CBCL Items and Taxonomy

While most youth generated problems could be coded into CBCL items, over one-fifth (21.3%) of youth-identified problems did not fit the taxonomy of problems assessed by the CBCL. Family problems (20.4% of all students), coping and self-regulation (10.4%), and relationship problems (6.3%) were all frequently reported problems that did not correspond to a relevant item on the CBCL and required creation of separate codes. Additionally, because high-frequency CBCL items such as “poor schoolwork” load onto narrow-band subscales such as “attention problems,” results raise questions about the appropriateness of use of CBCL narrow-band subscales for summarizing youth described problems.

Thus, while the CBCL was a useful method for organizing youth-described problems related to mental health symptoms, many additional codes were needed to accommodate the full range of problems for which youth seek mental health care in schools. This finding raises the practical question of whether symptom measures are likely to be most useful to schools as they seek to

screen students for mental health concerns, as well as whether reports from external observers (e.g., teachers) are likely to accurately identify students in need of help – and the kind of help from which they will benefit. These findings contribute to the ongoing quest on the part of scholars and practitioners to improve schools' approaches to universal school-based mental health screening (Connors et al., 2022; Moore et al., 2015).

Differences in Problems by Race, Ethnicity, and Gender

Comparison of problems and subscale scores showed substantial consistency across the five racial and ethnic categories for which there was adequate sample size. Analysis of problem codes found some difference; for example, 36% of Latinx students reported problems related to academic achievement, a higher percentage than for any other race/ethnicity. White and Latinx students were more likely to only report problems coded as internalizing, and Black students were more likely to report problems that were coded as externalizing. White and Latina girls were more likely to report problems on the internalizing scale; Black boys were more likely to report problems coded as externalizing.

At first blush, these findings seem generally consistent with prior research. For example, prior studies have found academic higher rates of academic challenges and internalizing symptoms for Latinx students (Clarke et al., 2017), and over-identification of externalizing disorders among Black youth (American Academy of Child and Adolescent Psychiatry, 2022). Closer inspection, however, revealed that differences by race/ethnicity were observed only for three CBCL subscales. Black students' higher rates of externalizing problems were driven by higher endorsement of just two items: "tantrums or hot temper" (21.9% vs. 15.2% for all youth) and "stubborn, sullen, or irritable" (11.7% vs. 7.6%).

Such results led the research team to return to students' verbatim reports, which revealed that Black students who coded to CBCL items in the "Aggression" subscale included problems such as "arguing with teachers," "getting along with teachers," and "talking back to authority." Recognizing that none of these items describe overtly "aggressive" behavior – and extensive research showing Black students are subject to disproportionally more school discipline (Skiba et al., 2012; U.S. Department of Education, Office of Civil Rights, 2016) – such findings prompt questions about whether Black students' reported problems with authority may actually be descriptions of reasons for referral from teachers for perceived oppositionality, or expressions of anger in the face of unfair treatment or discrimination.

Black students may also be seeking help for problems such as or "hot temper" or being "irritable" of their own accord. Exposure to discrimination can perpetuate distress and lead to internalizing problems such as depression as well as risky behaviors (Forster et al., 2022; Meza & Bath, 2021). Given Black students' greater rates of traumatic events, poverty, parental incarceration, and other adverse events (Osofsky & Groves, 2018), such behaviors may also be part of the expected sequelae of chronic stress related to systemic racism.

Finally, higher rates of self-reported externalizing problems among Black youth may stem from cultural differences in expression of internalizing problems. As described above, a primary driver of differences in externalizing behaviors were problems (e.g., "a bad tone in my voice" coded to the

CBCL item “stubborn, sullen, or irritable.” Research shows that African American youth report greater expression of anger and irritability with depression (Anderson & Mayes, 2010; Choi & Pak, 2006; Lu et al., 2017), and that Black youth referred to mental health services are often diagnosed with behavioral problems rather than other mental health conditions (American Academy of Child and Adolescent Psychiatry, 2022). Thus, well-established assessments like the CBCL may contribute to health inequities, such as via under-identification of internalizing and over-diagnosis of externalizing disorders.

Due to the small subsample of Asian American students (21 students; 4.6% of overall sample), we did not interpret subgroup findings, beyond noting that Asian American students reported similar rates of internalizing problems to other groups. Prior research has found that, while 14% of Asian American students self-reported elevated symptoms, only 3% were referred to care, compared, for example, to 20% and 13%, respectively, for Latinx students (Guo et al., 2014). Thus it is worth noting that even if Asian American students report similar levels of internalizing problems, these students may experience inequities in both access to and retention in care (Whitaker et al., 2018).

Limitations and Needs for Further Research

A key limitation of the current study is the applicability of CBCL items and scales to coding and characterizing diverse youths’ self-reported problems. While the manual developed by Yeh et al. (2009) served as a useful way to reduce a wide range of self-identified problems to symptom categories, it was clear that some youth-reported problems were not well matched to items. For example, the coding of “my mom always tells me I have an attitude at home” to “stubborn, sullen, or irritable” obscures the complexity of this problem as reported by the student in their own words. This mismatch was further exaggerated when the coded items were analyzed with their narrow-band subscale. For example, while youth-reported problems coded to “stubborn, sullen, or irritable” were assigned to the CBCL “Aggression” subscale, these problems may actually be driven by depression or anxiety.

Indeed, many scholars have critiqued use of CBCL taxonomies for racially and ethnically diverse populations given that normative samples included 80% Caucasian children and adolescents (Tabet et al., 2021). With some exceptions (e.g., Gross et al., 2006), many studies have not supported the measurement invariance of the CBCL among racial groups and cross-culturally, especially the narrow-band syndrome scales (Al-Hendawi et al., 2016; Kang, 2004; Stevanovic et al., 2014; Tyson et al., 2011). Given CBCL subscales were developed via factor analysis with a population that is unlikely to generalize to students included in the current study, it is not entirely surprising that the coded items do not roll up to the subscales in similarly meaningful ways. Thus, any results on subscale group differences should be interpreted with great caution.

Another limitation was our inability to examine the possibility that students’ self-reported problems may have been influenced by the reason for referral to SMH services, which may vary by youth race and ethnicity. Unfortunately, the current study did not have access to data on reasons for student referral. More broadly, it is known from research that youth are more accurate reporters of their own internalizing symptoms than externalizing symptoms (Achenbach, McConaughy, & Howell, 1987) and that school staff are more likely to identify externalizing problems than internalizing

(Bradshaw, Buckley, & Jalongo, 2008). Future research may wish to examine the alignment between reasons for referral to SMH services and youths' self-reported problems.

Finally, the current results were derived from a randomized trial of a school intervention. This may reduce generalizability to other settings, especially given the study excluded youth with certain types of symptoms (e.g., suicidal ideation). Furthermore, this study was collected in 2016-18, prior to the COVID-19 pandemic. Effects of the pandemic and other historical changes since 2016-18, are likely to have effected rates and types of youth self-reported problems and reasons students seek SMH services.

Implications

Results from this and other studies suggest youth receiving mental health services in schools report problems with schoolwork and relationship issues more than youth receiving services in community-based clinics, where concerns such as suicidality and/or clinically indicated depression are more common (Ali et al., 2019). This finding reinforces that SMH services should be tailored to target a wide array of needs with the goal of preventing more serious mental health problems. The study also reinforces the need for interconnected systems that blend resources, data, and practices across school and community service sectors (Barrett et al., 2013). Such interconnected systems would allow SMH practitioners to serve youth with a wide array of needs – including school issues – while referring to more intensive or specialized treatment from community providers when needed.

SMH providers also should be prepared to address both academic and mental health problems within a multi-tiered system of supports (MTSS; McIntosh & Goodman, 2016). Academic success and youth mental health are highly interrelated (Suldo et al., 2014), and negative cognitions can mediate the relationship between academic failure and depression. Thus, SMH interventions may use problem-solving around academics as a starting point and employ cognitive-behavioral strategies when needed.

Effectively addressing academic and relationship problems may be especially important for meeting the needs of minoritized youth. Current and previous findings have found higher prevalence of academic problems among Latinx youth, some of whom may be receiving instruction in a new or second language, and/or have parents who struggle to connect with schools due to language and culture issues. Meanwhile Black youth have been found to have a higher rate of co-occurrence between relationship issues and depression (Lu et al., 2017).

SMH strategies also must accommodate the multiple problems being experienced by students. Many youths described problems related to both depression and anxiety as well as both internalizing and externalizing problems. Such findings underscore the need for SMH practitioners to use strategies that allow students to report problems in their own words, identify their own priorities for treatment, and facilitate skills-building using evidence-based strategies. Listening to students' own reported needs may be particularly important for youth of color, as these students may be referred for behavior problems that mask depression or anxiety and/or due to bias among professionals (Liu et al., 2022).

Finally, differences in reported problems among students of different races and ethnicities reinforces the need for culturally responsive SMH services. Latinx students were more likely than other racial/ethnic groups to identify school and internalizing problems, consistent with previous research (Anderson & Mayes, 2010). Such findings highlight the potential need for interventions for Latinx students that address internalizing challenges interfering with learning (Becker & Luthar, 2002) and impact of academic problems on mental health (Clarke et al., 2017; Herrold & O'Donnell, 2008).

Black students, particularly boys, identified externalizing problems at higher rates; however, results suggest that SMH practitioners must take care to evaluate the origins of the referral to services and take care to manage the impact of highly accessible implicit stereotypes of black youth (Liu et al., 2022) and perpetuate over-identification of behavior problems when depression and/or anxiety may be present. Further upstream, systematic, universal screening may help identify student mental health needs earlier – and more objectively – than teacher referrals (Raines et al., 2012).

Conclusion

Given this is the first study to present data on self-reported problems of youth referred to or seeking SMH services, much work remains to better understand how we can build school-based systems that best support the needs of all students. Nonetheless, patterns of differences in student mental health needs found in the current study reinforce the importance of building systems of support that are capable of meeting the diverse needs of an increasingly diverse student population. The findings also underscore that community and school providers – as well as funders, policy-makers, and decision-makers – must work together to provide a truly interconnected continuum of support.

Funding and Ethics Declarations

The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, Grant R305A160111 (PIs Bruns & McCauley). The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.

All procedures in the present study were in accordance with the ethical standards of the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study protocol was approved by the Institutional Review Board of the University of Washington (Study 00010952). Informed consent to participate in the study was obtained from parents or legal guardians of all student participants; assent to participate was obtained from all students.

References

- Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/ adolescent behavioral and emotional problems: Implications of cross- informant correlations for situational specificity. *Psychological Bulletin*, 101, 213–232.
- Achenbach, T. M., & Rescorla, L. (2001). *Manual for the ASEBA school-age forms & profiles (Manual for the ASEBA)* [Manual]. University of Vermont, Research Center for Children, Youth, & Families.
- Ali, M. M., Sherman, L. J., Lynch, S., Teich, J., & Mutter, R. (2019). Differences in Utilization of Mental Health Treatment Among Children and Adolescents With Medicaid or Private Insurance. *Psychiatric Services*, 70(4), 329–332. <https://doi.org/10.1176/appi.ps.201800428>
- American Academy of Child and Adolescent Psychiatry. (2022). *ACAP Policy Statement on Increased Suicide Among Black Youth in the U.S.* American Academy of Child and Adolescent Psychiatry. https://www.aacap.org/aacap/Policy_Statements/2022/AACAP_Policy_Statement_Increased_Suicide_Among_Black_Youth_US.aspx
- Anderson, E. R., & Mayes, L. C. (2010). Race/ethnicity and internalizing disorders in youth: A review. *Clinical Psychology Review*, 30(3), 338–348. <https://doi.org/10.1016/j.cpr.2009.12.008>
- Barrett, S., Eber, L., & Weist, M. D. (Eds.). (2013). *Advancing education effectiveness: Interconnecting school mental health and school-wide PBIS*. Positive Behavioral Interventions and Supports. <http://www.pbis.org/common/pbisresources/publications/Final-Monograph.pdf>
- Becker, B. E., & Luthar, S. S. (2002). Social-emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Educational Psychologist*, 37(4), 197–214. https://doi.org/10.1207/S15326985EP3704_1
- Becker, K. D., Lee, B. R., Daleiden, E. L., Lindsey, M., Brandt, N. E., & Chorpita, B. F. (2013). The common elements of engagement in children's mental health services: Which elements for which outcomes? *Journal of Clinical Child & Adolescent Psychology*, Advance online publication.
- Bradley, J. G., Murphy, S., Fugard, A. J. B., Nolas, S.-M., & Law, D. (2013). *What kinds of goals do children and young people set for themselves in therapy? Developing a goals framework using CORC*.
- Bradshaw, C. P., Buckley, J. A., & Jalongo, N. S. (2008). School-based service utilization among urban children with early onset educational and mental health problems: The squeaky wheel phenomenon. *School Psychology Quarterly*, 23(2), 169–189. <https://doi.org/10.1037/1045-3830.23.2.169>
- Bruns, E. J., Duong, M. T., Lyon, A. R., Pullmann, M. D., Cook, C. R., Cheney, D., & McCauley, E. (2016). Fostering SMART partnerships to develop an effective continuum of behavioral health services and supports in schools. *The American Journal of Orthopsychiatry*, 86(2), 156–170. <https://doi.org/10.1037/ort0000083>
- Bruns, E. J., Lee, K., Davis, C., Pullmann, M. D., Ludwig, K., Sander, M., Holm-Hansen, C., Hoover, S., & McCauley, E. M. (2023). Effectiveness of a Brief Engagement, Problem-Solving, and Triage Strategy for High School Students: Results of a Randomized Study. *Prevention Science*, 24(4), 701–714. <https://doi.org/10.1007/s11121-022-01463-4>
- Bruns, E. J., Parker, E. M., Hensley, S., Pullmann, M. D., Benjamin, P. H., Lyon, A. R., & Hoagwood, K. E. (2019). The role of the outer setting in implementation: Associations between state demographic, fiscal, and policy factors and use of evidence-based treatments in mental healthcare. *Implementation Science*, 14(1), 96. <https://doi.org/10.1186/s13012-019-0944-9>
- Cairns, A. J., Kavanagh, D. J., Dark, F., & McPhail, S. M. (2019). Goal setting improves retention in youth mental health: A cross-sectional analysis. *Child and Adolescent Psychiatry and Mental Health*, 13(1), 31. <https://doi.org/10.1186/s13034-019-0288-x>

- Choi, B. C. K., & Pak, A. W. P. (2006). Multidisciplinarity, interdisciplinarity in health research, services, education and policy: 1. Definitions, objectives, and evidence of effectiveness. *Clinical and Investigative Medicine. Medecine Clinique Et Experimentale*, 29(6), 351–364.
- Chorpita, B. F., Reise, S., Weisz, J. R., Grubbs, K., Becker, K. D., & Krull, J. L. (2010). Evaluation of the Brief Problem Checklist: Child and caregiver interviews to measure clinical progress. *Journal of Consulting and Clinical Psychology*, 78(4), 526.
- Clarke, B. L., Wheeler, L. A., Sheridan, S. M., Witte, A. L., Sommerhalder, M. S., & Svoboda, E. A. (2017). Supporting Latinx student success via family–school partnerships: Preliminary effects of conjoint behavioral consultation on student and parent outcomes. *Journal of Educational & Psychological Consultation*, 27(3), 317–343. <https://doi.org/10.1080/10474412.2017.1293543>
- Connors, E. H., Moffa, K., Carter, T., Crocker, J., Bohnenkamp, J. H., Lever, N. A., & Hoover, S. A. (2022). Advancing Mental Health Screening in Schools: Innovative, Field-Tested Practices and Observed Trends During a 15-Month Learning Collaborative. *Psychology in the schools*, 59(6), 1135–1157. <https://doi.org/10.1002/pits.22670>
- Costello, E. J., He, J., Sampson, N. A., Kessler, R. C., & Merikangas, K. R. (2014). Services for adolescents with psychiatric disorders: 12-month data from the national comorbidity survey-adolescent. *Psychiatric Services*, 65(3), 359–366.
- Cyr, L., & Francis, K. (1992). Measures of clinical agreement for nominal and categorical data: The kappa coefficient. *Computers in Biology and Medicine*, 22(4), 239–246. [https://doi.org/10.1016/0010-4825\(92\)90063-s](https://doi.org/10.1016/0010-4825(92)90063-s)
- DeFosset, A. R., Gase, L. N., Ijadi-Maghsoodi, R., & Kuo, T. (2017). Youth Descriptions of Mental Health Needs and Experiences with School-based Services: Identifying Ways to Meet the Needs of Underserved Adolescents. *Journal of Health Care for the Poor and Underserved*, 28(3), 1191–1207. <https://doi.org/10.1353/hpu.2017.0105>
- Duong, M. T., Bruns, E. J., Lee, K., Cox, S., Coifman, J., Mayworm, A., & Lyon, A. R. (2021). Rates of Mental Health Service Utilization by Children in Schools and Other Common Service Settings: A Systematic Review and Meta-Analysis. *Administration and Policy in Mental Health and Mental Health Services Research*, 48(3), 420–439. <https://doi.org/10.1007/s10488-020-01080-9>
- Forster, M., Rogers, C. J., Rainisch, B., Grigsby, T., De La Torre, C., Albers, L., & Unger, J. B. (2022). Adverse Childhood Experiences and Intimate Partner Violence; Findings From a Community Sample of Hispanic Young Adults. *Journal of Interpersonal Violence*, 37(19–20), NP18291–NP18316. <https://doi.org/10.1177/08862605211035881>
- Gross, D., Fogg, L., Young, M., Ridge, A., Cowell, J. M., Richardson, R., & Sivan, A. (2006). The equivalence of the Child Behavior Checklist/1 1/2–5 across parent race/ethnicity, income level, and language. *Psychological Assessment*, 18(3), 313–323. <https://doi.org/10.1037/1040-3590.18.3.313>
- Guo, S., Kataoka, S. H., Bear, L., & Lau, A. S. (2014). Differences in school-based referrals for mental health care: Understanding racial/ethnic disparities between Asian American and Latino youth. *School Mental Health*, 6(1), 27–39.
- Hawley, K. M., & Weisz, J. R. (2003). Child, parent and therapist (dis)agreement on target problems in outpatient therapy: The therapist's dilemma and its implications. *Journal of Consulting and Clinical Psychology*, 71, 62–70. <https://doi.org/10.1037/0022-006X.71.1.62>
- Herrold, K., & O'Donnell, K. O. (2008). *Parent and family involvement in education, 2006–07 school year, from the National Household Education Surveys Program of 2007*. Institute of Education Sciences: National Center for Education Statistics. <http://nces.ed.gov/pubs2008/2008050.pdf>

- Hoover, S., & Bostic, J. (2021). Schools As a Vital Component of the Child and Adolescent Mental Health System. *Psychiatric Services (Washington, D.C.)*, 72(1), 37–48.
<https://doi.org/10.1176/appi.ps.201900575>
- Jacob, J., Edbrooke-Childs, J., Law, D., & Wolpert, M. (2017). Measuring what matters to patients: Using goal content to inform measure choice and development. *Clinical Child Psychology and Psychiatry*, 22(2), 170–186. <https://doi.org/10.1177/1359104515615642>
- Jones, J. M., Lee, L. H., Matlack, A., & Zigarelli, J. (2018). Using sisterhood networks to cultivate ethnic identity and enhance school engagement. *Psychology in the Schools*, 55(1), 20–35.
<https://doi.org/10.1002/pits.22087>.
- Kang, E. (2004). *Measurement equivalence of the Child Behavior Checklist among white, Hispanic, and black low-income families* [Unpublished doctoral dissertation].
- Kilgus, S. P., Reinke, W. M., & Jimerson, S. R. (2015). Understanding mental health intervention and assessment within a multi-tiered framework: Contemporary science, practice, and policy. *School Psychology Quarterly: The Official Journal of the Division of School Psychology, American Psychological Association*, 30(2), 159–165. <https://doi.org/10.1037/spq0000118>
- Kim, P. Y., & Lee, D. (2014). Internalized model minority myth, Asian values, and help-seeking attitudes among Asian American students. *Cultural Diversity & Ethnic Minority Psychology*, 20(1), 98–106. <https://doi.org/10.1037/a0033351>
- Liu, F. F., McRee, E., Coifman, J., Stone, J., Lai, C. K., Yu, C., & Lyon, A. R. (2022). School Mental Health Professionals' Knowledge of Stereotypes and Implicit Bias Toward Black and Latinx Youths. *Psychiatric Services*, 73(11), 1308–1311. <https://doi.org/10.1176/appi.ps.202100253>
- Lu, W., Lindsey, M. A., Irsheid, S., & Nebbitt, V. E. (2017). Psychometric properties of the CES-D among Black adolescents in public housing. *Journal of the Society for Social Work and Research*, 8(4), 595–619. <https://doi.org/10.1086/694791>
- Lyon, A. R., Ludwig, K. A., Stoep, A. V., Gudmundsen, G., & McCauley, E. (2013). Patterns and Predictors of Mental Healthcare Utilization in Schools and Other Service Sectors. *School Mental Health*, 5(3), 155–165. <https://doi.org/10.1007/s12310-012-9097-6>
- McIntosh, K., & Goodman, S. (2016). *Integrated multi-tiered systems of support*. Guilford Publications.
- Meza, J. I., & Bath, E. (2021). One Size Does Not Fit All: Making Suicide Prevention and Interventions Equitable for Our Increasingly Diverse Communities. *Journal of the American Academy of Child and Adolescent Psychiatry*, 60(2), 209–212. <https://doi.org/10.1016/j.jaac.2020.09.019>
- Moore SA, Widales-Benitez O, Carnazzo KW, Kim EK, Moffa K, & Dowdy E (2015). Conducting universal complete mental health screening via student self-report. *Contemporary School Psychology*, 19(4), 253–267.
- Moore, T. (2023, June). *Reporting and specifying implementation strategies used in scaling up digital health in youth mental health* [Conference presentation]. International Digital Mental Health and Well-being Conference, Ulster University, Belfast campus, York Street, Northern Ireland, UK.
- Osofsky, J. D., & Groves, B. M. (Eds.). (2018). *Violence and Trauma in the Lives of Children*. ABC-CLIO.
- Prothero, A. (2023). *How Educators and Teens Disagree on What's Harming Students' Mental Health*. Education Week. <https://www.edweek.org/leadership/how-educators-and-teens-disagree-on-whats-harming-students-mental-health-in-charts/2023/10>
- Raines, T. C., Dever, B. V., Kamphaus, R. W., & Roach, A. T. (2012). Universal Screening for Behavioral and Emotional Risk: A Promising Method for Reducing Disproportionate Placement in Special Education. *The Journal of Negro Education*, 81(3), 283–296.
<https://doi.org/10.7709/jnegroeducation.81.3.0283>

- Richardson, L. P., McCauley, E., Grossman, D. C., McCarty, C. A., Richards, J., Russo, J. E., Rockhill, C., & Katon, W. (2010). Evaluation of the Patient Health Questionnaire-9 item for detecting major depression among adolescents. *Pediatrics*, 126(6), 1117–1123.
<https://doi.org/10.1542/peds.2010-0852>
- Singer, J. B., Eack, S. M., & Greeno, C. M. (2011). The Columbia Impairment Scale: Factor analysis using a community mental health sample. *Research on Social Work Practice*, 21(4), 458–468.
- Skiba, R. J., Shure, L., & Williams, N. (2012). Racial and ethnic disproportionality in suspension and expulsion. In A. L. Noltemeyer & C. S. McLoughlin, *Disproportionality in Education and Special Education* (pp. 89–118). Charles C. Thomas Publisher, Ltd.
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing Generalized Anxiety Disorder: The GAD-7. *Archives of Internal Medicine*, 166(10), 1092–1097.
<https://doi.org/10.1001/archinte.166.10.1092>
- Stephan, S. H., Weist, M., Kataoka, S., Adelsheim, S., & Mills, C. (2007). Transformation of Children's Mental Health Services: The Role of School Mental Health. *Psychiatric Services*, 58(10), 1330–1338. <https://doi.org/10.1176/ps.2007.58.10.1330>
- Stevanovic, D., Urbán, R., Atilola, O., Vostanis, P., Balhara, Y. P. S., Avicenna, M., Kandemir, H., Knez, R., Franic, T., & Petrov, P. (2014). Does the Strengths and Difficulties Questionnaire – self report yield invariant measurements across different nations? Data from the International Child Mental Health Study Group. *Epidemiology and Psychiatric Sciences*, 24(4), 323.
<https://doi.org/10.1017/S2045796014000201>
- Suldo, S. M., Gormley, M. J., DuPaul, G. J., & Anderson-Butcher, D. (2014). The impact of school mental health on student and school-level academic outcomes: Current status of the research and future directions. *School Mental Health: A Multidisciplinary Research and Practice Journal*, 6(2), 84–98. <https://doi.org/10.1007/s12310-013-9116-2>
- Tabet, S., Lambie, G., & Golubovic, N. (2021). An investigation of college student-athletes' mental health stigma, help-seeking attitudes, depression, anxiety, and life stress scores using structural equation modeling. *Journal for the Study of Sports and Athletes in Education*, 15, 1–23. <https://doi.org/10.1080/19357397.2021.1924562>
- The White House. (2023, May 18). *Fact Sheet: Biden-Harris Administration Announces New Actions to Tackle Nation's Mental Health Crisis*. <https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/18/fact-sheet-biden-harris-administration-announces-new-actions-to-tackle-nations-mental-health-crisis/>
- Twenge, J. M., Cooper, A. B., Joiner, T. E., Duffy, M. E., & Binau, S. G. (2019). Age, period, and cohort trends in mood disorder indicators and suicide-related outcomes in a nationally representative dataset, 2005–2017. *Journal of Abnormal Psychology*, 128(3), 185–199.
<https://doi.org/10.1037/abn0000410>
- Tyson, E. H., Teasley, M., & Ryan, S. (2011). Using the Child Behavior Checklist with African American and Caucasian American adopted youth. *Journal of Emotional and Behavioral Disorders*, 19(1), 17–26. <https://doi.org/10.1177/1063426609357760>
- U.S. Department of Education, Office of Civil Rights. (2016). *2013-2014 Civil rights data collection: Key data highlights on equity and opportunity gaps in our nation's public schools*. U.S. Department of Education. <http://www2.ed.gov/about/offices/list/ocr/docs/crdc-2013-14.html>
- U.S. Department of Health and Human Services. (2022). *HHS releases new national guidelines improving youth mental health crisis care*. Substance Abuse and Mental Health Services Administration (SAMHSA). <https://www.samhsa.gov/newsroom/press->

- announcements/20221110/hhs-releases-new-national-guidelines-improving-youth-mental-health-crisis-care
- Wasil, A. R., Taylor, M. E., Franzen, R. E., Steinberg, J. S., & DeRubeis, R. J. (2021). Promoting Graduate Student Mental Health During COVID-19: Acceptability, Feasibility, and Perceived Utility of an Online Single-Session Intervention. *Frontiers in Psychology, 12*.
<https://www.frontiersin.org/articles/10.3389/fpsyg.2021.569785>
- Weisz, J. R., Chorpita, B. F., Frye, A., Ng, M. Y., Lau, N., Bearman, S. K., Ugueto, A. M., Langer, D. A., & Hoagwood, K. E. (2011). Youth top problems: Using idiographic, consumer-guided assessment to identify treatment needs and to track change during psychotherapy. *Journal of Consulting and Clinical Psychology, 79*(3), 369–380. <https://doi.org/10.1037/a0023307>
- Whitaker, K., Fortier, A., Bruns, E., Nicodimos, S., Ludwig, K., Lyon, A., Pullmann, M., Short, K., & Mccauley, E. (2018). How do school mental health services vary across contexts? Lessons learned from two efforts to implement a research-based strategy. *School Mental Health, 10*.
<https://doi.org/10.1007/s12310-017-9243-2>.
- Yeh, M., Hawley, K., Lau, N., Ng, M.Y. & Weisz, J.R. (2009). *Target Problem/Top Problem Coding Manual*. Boston: Judge Baker Children's Center.