Moving Toward Implementation of Universal Mental Health Screening by Examining Attitudes Toward School-Based Practices

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Abstract

Universal mental health screening is a proactive approach to identify students who may benefit from prevention or early intervention services. Despite known benefits, few schools are engaging in screening efforts, and it is critical to examine factors that may impede or enhance implementation. Following implementation of a universal screening program across five preschools and elementary schools, this study investigated the attitudes of teachers ($n = 40$) and parents ($n = 330$) and found strong agreement among stakeholders about the acceptability and appropriateness of universal mental health screening. Teachers and parents expressed less willingness to regularly complete screening forms, yet teachers reported that the Behavior Assessment System for Children–Third Edition: Behavioral Emotional Screening System was a usable screening tool. Implications and future directions to enhance implementation efforts are discussed.

Emotional and behavioral disorders represent a significant source of disability for children and adolescents (Ringeisen et al., 2017) and are associated with increased risk for numerous deleterious life outcomes (e.g., school failure, juvenile and criminal justice systems involvement, unemployment, substance abuse; Althoff et al., 2010; Wagner & Newman, 2012). However, a majority of children's mental health needs go unmet, with approximately 70% of children not receiving the treatment they need (Centers for Disease Control and Prevention, 2013). Schools represent a primary service delivery setting for children who do receive treatment, with estimates indicating that up to 80% who receive mental health services do so at school (Duong et al., 2020; Rones & Hoagwood, 2000).

Population-based public health approaches are widely accepted and promoted for addressing children's unmet mental health needs in schools (Dowdy et al., 2010). These approaches emphasize prevention in addition to treatment through services provided within a tiered framework that includes interventions at increasing levels of intensity. Critical to the success of tiered intervention frameworks is the use of data to identify students with mental health risk, such that they may be referred to an appropriate level of intervention (Kilgus & Eklund, 2016). School-based universal mental health screening (UMHS) is an evidence-based, proactive approach to identification of mental health risk that is aligned with federal education policies and population-based approaches to prevent mental illness (Kilgus & Eklund, 2016).

UMHS involves the systematic assessment of a wide range of emotional and behavioral risk factors among all students within a classroom, school, or district and is supported as a first step for identifying children in need of services (Dowdy et al., 2010). Via teacher-, caregiver-, or child self-report on psychometrically validated instruments, the goal of UMHS is to identify children with current symptoms as well as those at risk for development of significant symptoms. In contrast, traditional referral methods (e.g., teacher referral, office discipline referrals) are frequently

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criticized for their reactionary nature and susceptibility to bias, such that youth are often referred after demonstrating disruptive behaviors or significant need for intervention (Naser et al., 2018). As a result, traditional approaches tend to overidentify males and underidentify youth with internalizing symptoms (e.g., Dowdy et al., 2013b) and contribute to disproportionality of ethnic minority youth, most notably African American youth, in restrictive service settings (Raines et al., 2009; Skiba et al., 2011). When compared with identification via teacher referral or discipline records, UMHS identifies more students with mental health needs and is more effective in identifying students with internalizing symptoms who may otherwise go unidentified (Dowdy et al., 2013b; Naser et al., 2018). In addition, as UMHS is a proactive and preventive approach, whereby all students are screened at regular intervals, it does not require waiting until teachers, parents, or other caregivers notice significant symptoms of distress and then refer them for individualized assessment services which can be resource-intensive (Dowdy et al., 2010). Mental health screening has also been associated with a lower false-positive rate and higher positive predictive value for significant mental health problems (Scott et al., 2009) and a lower false-negative rate than other referral methods (Cunningham & Suldo, 2014), and preliminary research demonstrates its cost-effectiveness (Kuo et al., 2009).

Thus, systematic identification of need for mental health services via UMHS enables early identification and referral to intervention. Early identification for mental health risk is particularly important during the preschool and early elementary school years when emotional and behavioral problems may be first noticeable (Dowdy et al., 2013a). Theoretically, and empirically, research has demonstrated that the sooner problems are identified and treated, the more positive the later outcomes (Webster-Stratton & Reid, 2013), and without treatment, problems tend to remain stable (Dowdy et al., 2013a).

Implementation of School-Based Mental Health Screening

The gap in development and installation of evidence-based practices into applied settings has been well-documented (e.g., Damschroder et al., 2009; Langley et al., 2010; Sanetti & Collier-Meek, 2019). Despite the evidence in support of UMHS to inform early identification and early intervention, few schools currently use systematic screening practices to identify children appropriate for mental health services. Whereas schools have successfully developed an infrastructure to implement other systematic screening efforts (e.g., academic weaknesses, hearing), estimates indicate that only 12% of schools engage in UMHS (Bruhn et al., 2014). A range of factors that may hinder the adoption and implementation of UMHS has been presented in existing literature, including limited time and competing priorities, insufficient financial or personnel resources, lack of administrative support at the school or district level, protecting the privacy of mental health information collected, insufficient capacity to appropriately serve the children identified, limited awareness, or attitudes about the alignment of UMHS with educational priorities (Bruhn et al., 2014; Dever et al., 2012).

Whereas school change efforts are often directed at administrative and policy levels that can dictate routine practice, individual school stakeholders (e.g., teachers, parents) are often responsible for implementing new initiatives. Decisions made by individual stakeholders have consequences for implementation (Damschroder et al., 2009), such that when individuals are ambivalent or resistant implementation can suffer (Cook et al., 2015). Although only one of many known multilevel implementation determinants, stakeholders' beliefs and attitudes about a given practice are influential in their decisions about whether to adopt and use that new practice (e.g., Harrison et al., 2013). Research has supported a link between the beliefs and attitudes of school stakeholders and their subsequent implementation of evidence-based practices (e.g., Cook et al., 2015). In addition, lack of acceptance from school personnel can impede practice utilization such that school-wide practices and interventions are more likely to be successful when change agents believe in their relative value and purpose (Briesch et al., 2013). Thus, understanding the perspective of teachers and parents can be useful for researchers, school mental health providers, and administrators advocating for increased implementation of UMHS.

Of particular importance in decisions to use a given practice, such as UMHS, are stakeholders' attitudes about the acceptability, appropriateness, and usability of the practice (Greer et al., 2012). Although related, and sometimes included within the broader category of social validity (Greer et al., 2012), these three domains reflect nuanced outcomes. *Acceptability* is "the perception among implementation stakeholders that a given treatment, service, or practice is agreeable, palatable, or satisfactory" (Proctor et al., 2011, p. 67) and includes stakeholders' intentions to carry out a given practice, beliefs about the associated burden of implementation, perceptions about the practice's efficacy, and self-efficacy beliefs (Sekhon et al., 2017). *Appropriateness* is "the perceived fit, relevance, or compatibility of the [practice] for a given practice setting, provider, or consumer" or the fit of the practice for a given problem (Proctor et al., 2011, p. 69). *Usability* tends to be a more broadly conceived term and reflects multiple constructs impacting perceptions of utility and relevance of a given practice (Greer et al., 2012; Miller et al., 2014). For example, a practice's usability is impacted by its acceptability, stakeholders' understanding and knowledge of procedures, its feasibility (i.e., actual fit or utility of a given practice

within a given setting), and system factors, including system climate (i.e., appropriateness) and support structures in place (Briesch et al., 2013). Taken together, these attitudes are considered integral not only in decisions to adopt evidence-based practices, but also in the fidelity and success of later implementation efforts.

Attitudes of school stakeholders, including teachers and parents, attitudes about the acceptability, appropriateness, and usability of UMHS procedures and instruments, therefore, may have implications for the uptake and use of mental health screening. Although previous research has investigated parent, teacher, and other school stakeholders' knowledge about supporting students' social, emotional, and behavioral needs in schools (e.g., Briesch et al., 2020), research to date has neither compared teacher and parent attitudes toward UMHS nor studied whether these attitudes impact implementation of UMHS. The scientific knowledge base pertaining to attitudes toward UMHS is currently limited to few studies focused on acceptability and utility of particular measures (e.g., Miller et al., 2014; Smith et al., 2018). Further, these studies have primarily investigated the attitudes of single stakeholder groups, most often teachers. Thus, it is important to examine attitudes toward UMHS across stakeholder groups, including both teachers and parents, and as related to young children, given the importance of early intervention. With a goal of gathering comprehensive information about a child's functioning across various contexts, it is often advised to gather assessment information from multiple informants, including within the UMHS context (De Los Reyes et al., 2019; Moore et al., in press). This further highlights the need to gather information on attitudes toward UMHS practices from multiple informants, who may have disparate opportunities to observe and rate child behavior (i.e., teachers may have more of such opportunities as part of regular educational practices and have familiarity with behavior from a larger number of children in the same developmental stage). Moreover, given that a lack of familiarity with mental health can impact stakeholder views (Briesch et al., 2013), research including parents and teachers who have participated in UMHS can offer experiential insight into the acceptability of such practices across groups.

Given the importance of stakeholders' attitudes as one determining factor for successfully implementing evidence-based school mental health practices, additional research is needed to understand key school stakeholders' (i.e., parents and teachers) attitudes toward UMHS. This study represents a preliminary examination of teachers' and parents' beliefs related to their participation in UMHS and addressed the following research questions:

Research Question 1: Do teachers and parents perceive UMHS to be an acceptable and appropriate practice? Do perceptions differ across informant?

Research Question 2: How do preschool and early elementary school teachers perceive the usability of a widely used mental health screening measure (i.e., the Behavior Assessment System for Children–Third Edition: Behavioral Emotional Screening System [BASC-3 BESS; Kamphaus & Reynolds, 2015])?

Method

Participants and Procedure

Data used in this study were collected as part of a federally funded longitudinal research grant examining UMHS measures for use in schools. In particular, the grant was examining the psychometric properties of the BASC-3 BESS and as a result this study is examining attitudes focused on this specific measure. To provide additional validity evidence in support of the scores of the BASC-3 BESS measure, an additional screening measure, the Pediatric Symptom Checklist–17 (PSC-17; Murphy et al., 2016) was also administered providing for a more robust examination of attitudes across two screening measures. For the grant-funded project, in the Fall of three consecutive academic years (2016–2017, 2017–2018, 2018–2019), all parents and teachers from five participating preschools, housed within public elementary schools in central California, were invited to participate. Prior to recruiting parents and teachers, the preschool sites were recruited due to school-level and district interest and they each agreed to participate in the study across all years. All preschools were state-funded and intended to serve families experiencing low socioeconomic circumstances. In addition, none of the preschools had been engaged in UMHS screening prior to the 2016–2017 school year. Children of parents who provided active informed consent were then followed into kindergarten (2016–2017 and 2018–2019 cohorts) and first grade (2016–2017 cohort), and their elementary school teachers were also consented to participate. As a part of the larger project, in the fall and spring of each academic year, teachers and parents were provided with a packet of information to be completed, including a demographic questionnaire and two mental health screening measures (i.e., BASC-3 BESS and PSC-17).

In the spring of the final year of the grant (2019), teachers and parents of preschool, kindergarten, or first grade children who were enrolled in the larger project also completed relevant measure(s) for this study. Measures to assess attitudes toward the UMHS practices employed and usability of one screening tool were included in the teacher and parent packets and ordered so as to be completed after responding to the UMHS measures. Specifically, both parents and teachers of participating children completed a researcher-developed measure examining their beliefs about the acceptability and appropriateness of UMHS in

schools. In addition, to reduce time burden on children's parents, only teachers completed the Usage Rating Profile–Assessment (URP-A) with reference to the BASC-3 BESS Teacher Form (given the emphasis on this measure in the larger project). Parents participating in this study and the longitudinal project were able to complete all measures in their preferred language (i.e., English or Spanish).

Teachers ($n = 40$) were primarily female (95.0%) and identified as non-Hispanic White (60.0%), followed by Latinx (27.5%), African American (2.5%), and Asian American (2.5%). Half taught kindergarten with the remaining teaching preschool (25.0%) or first grade (25.0%). Most teachers had at least a bachelor's degree (60.0%) with fewer having master's (32.5%) or associate's (5.0%) degrees. Sixty-five percent had taught for more than 10 years, with 15.0% having taught between 5 and 10 years and 15.0% having taught 5 years or less.

Demographic data for participating parents ($n = 330$) were collected via self-report with varying response rates on items. Most of the reporting parents were female (73.3%, 6.7% male, 19.9% not reported) and identified as Latinx (61.2%), followed by non-Hispanic White (12.1%), Asian/Pacific Islander (1.3%), or another ethnicity (2.5%; 23.1% decline to state or not reported). Most parents were married (60.1%). Degree of parental education varied across the sample, with 17.3% reporting education less than a high school diploma, 24.8% having completed high school, 16.7% having completed some college, 10.2% completing college, and 4.3% with a graduate education. Forty-two percent of parents reported being most comfortable with Spanish, 27.8% indicated being most comfortable with English, 7.0% indicated equal comfort with both languages, and 0.8% expressed another preference. Parents completed this study's measures in Spanish (50.6%) or English (49.4%).

Measures

Stakeholder perceptions of acceptability and appropriateness. To assess teacher and parent attitudes of acceptability and appropriateness of UMHS, a researcher-developed form consisting of four questions was provided to parents and teachers following completion of the UMHS measures. Each item was rated on a 5-point response scale describing the degree to which the raters agree with the statements (i.e., *Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree*). For this study's analyses, higher scores indicate greater agreement.

The questionnaire's development began with a review of relevant literature and construct operationalization. Wolf's (1978) ideas gave basis to the definition of social validity; this work was used in conjunction with varying definitions offered by subsequent researchers (Glover & Albers, 2007; Lane et al., 2009) to develop a succinct scale. The resulting

conceptualization of social validity was composed of two elements: *acceptability*, operationalized as "agreeable, palatable, or satisfactory," and *appropriateness*, operationalized as "perceived fit, relevance, or compatibility" based upon definitions from Proctor et al. (2011). Three items measured acceptability: "It is important to ask questions about children's emotions and behavior"; "I would be willing to complete surveys about my child/student's emotions and behaviors on a regular basis"; and "Surveys about children's emotions and behaviors are useful in identifying which children need more help." One item measured appropriateness: "Emotional and behavioral development should be addressed in a school setting." To ensure that the survey was capturing the intended dimensions, content validity associated with the items was supported through a review and match of the newly constructed survey with previous definitions of social validity, and the specific constructs of acceptability and appropriateness, as noted by other researchers (e.g., Glover & Albers, 2007; Proctor et al., 2011; Sekhon et al., 2017; Wolf, 1978).

Teacher perceptions of usability of a UMHS measure. The URP-A is a self-report measure created to understand the usability of school-based assessments (Miller et al., 2013). For this study, the URP-A was administered to assess the factors that influence teachers' use of a widely used UMHS tool, the BASC-3 BESS (Kamphaus & Reynolds, 2015). Adapted from the revised Usage Rating Profile–Intervention (URP-IR; Briesch et al., 2013), confirmatory factor analysis of the URP-A has supported a six-factor model consisting of Acceptability (e.g., "This assessment is a fair way to evaluate the child's behavior problem"), Understanding (e.g., "I understand how to use this assessment"), Feasibility (e.g., "The total time required to implement the assessment procedures would be manageable"), Home–School Collaboration (e.g., "A positive home–school relationship is needed to use this assessment"), System Climate (e.g., "Use of this assessment would be consistent with the mission of my school"), and System Support (e.g., "I would require additional professional development to implement this assessment"; Miller et al., 2013). Teachers responded to 28 items using a 6-point response scale (1 = *Strongly Disagree* to 6 = *Strongly Agree*). Previous research has demonstrated the URP-A to have adequate internal consistency reliability ($\alpha = .63$ for System Support to $\alpha = .90$ for Acceptability; Miller et al., 2013). In this study, internal consistency reliability was as follows: $\alpha = .47$ for System Support, $\alpha = .82$ for Understanding, $\alpha = .84$ for System Climate, $\alpha = .87$ for Home–School Collaboration, $\alpha = .85$ for Feasibility, and $\alpha = .92$ for Acceptability. Similar to previous studies, total usability and subdomain scores were calculated using mean item responses, with System Support reverse coded to reflect endorsement of a greater ability to independently implement UMHS (Miller et al., 2014).

Table 1. Descriptive Statics for Acceptability, Appropriateness, and Usability Ratings.

Construct/Item or Domain	Teacher (n = 40)	Parent (n = 330)
	M (SD)	M (SD)
Acceptability		
Important for schools to ask questions about children's emotions and behavior*	4.85 (0.36)	4.60 (0.60)
Willing to complete surveys about my child's/students' emotions and behavior regularly	4.00 (1.07)	4.30 (0.76)
Surveys about children's emotions and behavior are useful in identifying which children need more help	4.40 (0.78)	4.49 (0.60)
Appropriateness		
Emotional and behavioral development should be addressed in school*	4.85 (0.36)	4.39 (0.71)
Usability (URP-A) of BASC-3 BESS		
Acceptability	4.11 (0.97)	—
Understanding	4.51 (1.04)	—
Home–School Collaboration	4.12 (1.15)	—
Feasibility	4.11 (1.00)	—
System Climate	4.27 (0.86)	—
System Support[a]	4.23 (0.93)	—
Total Usability	4.19 (0.71)	—

Note. Response scale for Acceptability and Appropriateness items ranged from 1 = *strongly disagree* to 5 = *strongly agree*. Response scale for URP-A items ranged from 1 = *strongly disagree* to 6 = *strongly agree*. URP-A = Usage Rating Profile–Assessment; BASC-3 BESS = Behavior Assessment System for Children–Third Edition: Behavioral Emotional Screening System.
[a]Interpret with caution given poor internal consistency reliability.
*$p < .01$.

Universal mental health screening measures. Teachers and parents completed two UMHS measures of children's behavioral and emotional risk: the BASC-3 BESS (Kamphaus & Reynolds, 2015) and the PSC-17 (Murphy et al., 2016). The BASC-3 BESS consists of brief measures (20 items for teacher; 29 for parents) to identify behavioral and emotional risk, including adaptive skills, internalizing problems, and externalizing problems. The PSC-17 is a brief 17-item measure of internalizing, externalizing, and attention problems in children ages 4 to 17 years to be completed by multiple informants.

Data Analysis

Descriptive statistics were used to examine teachers' and parents' attitudes about the acceptability and appropriateness of UMHS, and teachers' perceptions of the usability of the BASC-3 BESS. Indicators of central tendency and variance were examined for each of the four researcher-created items measuring acceptability and appropriateness, disaggregated by teacher versus parent informant, as well as for the teacher report for each of the six URP-A usability subscales (i.e., Acceptability, Understanding, Feasibility, Home–School Collaboration, System Climate, and System Support) and Total Usability score. To further investigate similarity in attitudes for teacher and parent informants, Mann–Whitney U tests were performed to compare mean parent and teacher ratings on each of the four Likert-type

items on the researcher-created measure. This nonparametric test was selected (i.e., as opposed to a t test) given the discrete response options and restricted range of Likert-type items (de Winter & Dodou, 2012), as well as the observed skewed nature of the items in this study (see Table 1). Results of a simulation study (de Winter & Dodou, 2012) indicated equivalent power and Type I error rate of Mann–Whitney–Wilcoxon (MWW) and t test methods across most comparisons for both equal and unequal sample sizes, with MWW demonstrating relative advantage for data from skewed distributions. To account for increased familywise error due to conducting multiple tests, a conservative p value of .01 was applied for all comparisons. Analyses were completed in SPSS V26.0.

Results

Means and standard deviations for each of the acceptability and appropriateness items and the URP-A usability domains are presented in Table 1.

Do Teachers and Parents Perceive UMHS to Be An Acceptable and Appropriate Practice? Do Perceptions Differ Across Informant?

On average, teachers and parents *agreed* or *strongly agreed* that it is important for schools to ask questions about children's emotions and behavior, surveys about children's

emotions and behaviors are useful in identifying which children need more help, and emotional and behavioral development should be addressed in school. Comparing their responses to the four items, teachers reported slightly less agreement, on average, about their willingness to complete surveys about children's emotions and behaviors regularly, with more variability observed among teachers (SD = 1.07) than parents (SD = 0.76) on this item. Similarly, parents demonstrated lower levels of agreement about their willingness to regularly complete UMHS surveys and about the importance of addressing emotional and behavioral development in schools, with more variability observed for parents (SD = 0.71) than for teachers (SD = 0.36) on the latter item. Across all items, between 0.3%–1.8% of parents and 0%–10.0% of teachers *disagreed* or *strongly disagreed*, and 3.9%–10.6% of parents and 0%–17.5% of teachers responded *neutral*, providing further evidence of their general acceptance of UMHS.

Teachers' and parents' responses regarding the importance for schools to ask questions about children's emotions and behavior (U = 5,208, p = .009) and whether emotional and behavioral development should be addressed in school (U = 4,256, p < .001) significantly differed. Although both stakeholder groups indicated high levels of agreement on these items, teachers' responses were indicative of higher levels of agreement, on average. However, teacher and parent responses regarding willingness to complete surveys about children's emotions and behaviors (U = 5,618, p = .095) and the usefulness of these surveys in identifying which children need more help (U = 6,431, p = .765) did not significantly differ.

How Do Preschool and Early Elementary School Teachers Perceive the Usability of a Widely Used Mental Health Screening Measure (i.e., BASC-3 BESS)?

Teachers scores on the URP-A scales indicate that they generally view emotional and behavioral screening using the BASC-3 BESS favorably. Average preschool and early elementary school teacher ratings across usability domains for the BASC-3 BESS were all within the *slightly agree* to *agree* range (M = 4.11–4.51). Similarly, teachers in this study expressed the most agreement regarding their understanding of how to use the BASC-3 BESS and the lowest levels of agreement regarding acceptability and feasibility of the BASC-3 BESS, and the necessity of home–school collaboration to complete UMHS using the BASC-3 BESS. Teachers agreed that using the BASC-3 BESS to identify children with emotional and behavioral problems would be consistent with their school's culture (i.e., is appropriate) and indicated that they may only require minimal system supports to be able to implement the BASC-3 BESS.

However, given poor internal consistency reliability for the System Support scale observed in this study, these results should be interpreted with caution.

Discussion

This study examined attitudes of parents and teachers of children in preschool and early elementary school about the acceptability and appropriateness of UMHS practices, and teachers' perceptions of the usability of a widely used UMHS measure, the BASC-3 BESS, with a goal of informing UMHS implementation efforts. Our efforts focused on gathering data from preschool and early elementary teachers and parents due to the importance of UMHS when emotional and behavioral problems may begin to emerge and are more malleable to intervention efforts.

Acceptability and Appropriateness of UMHS

Teachers expressed significantly more agreement about the importance of assessing children's emotions and behaviors and in addressing emotional and behavioral development in schools than did parents, which has important implications for UMHS and school mental health practice. In previous research examining school stakeholders' knowledge and attitudes toward social-emotional and behavioral health in schools, Briesch and colleagues (2020) found that parents reported significantly lower levels of knowledge than teachers, administrators, and other school staff. It may be that more limited knowledge about young children's mental health and benefits of early and school-based intervention contribute to observed differences in parent and teacher attitudes in this study. Parent education and outreach to improve their knowledge in these domains may be fruitful in further supporting their participation in UMHS.

Comparing their responses to the four items assessing acceptability and appropriateness of UMHS, teachers and parents each expressed the least amount of agreement regarding their willingness to regularly complete surveys about children's emotions and behaviors. These results are consistent with previous mixed-methods research examining teacher perceptions of mental health screening processes and measures. For example, Greer et al. (2012) found that preschool teachers were similarly positive about the importance and utility of emotional and behavioral screening practices but had mixed opinions regarding the practicality of integrating this screening into regular school routines. Teachers and their principals elaborated that emotional and behavioral screening would be more feasible if incorporated into existing programs and if results were communicated to families and used in follow-up efforts with students (Greer et al., 2012). In another survey of multiple school stakeholders, parents were supportive of UMHS practices and perceived there to be pressure from both

school and community sources to change current mental health screening practices (Briesch et al., 2020); however, their willingness to participate in UMHS was not examined. Given the greater variability among teacher respondents regarding their willingness to regularly participate in UMHS, future research should investigate factors that differentiate teachers who are more willing to engage in UMHS.

Usability of the BASC-3 BESS

Findings that average preschool and early elementary school teacher ratings across usability domains for the BASC-3 BESS were all within the *slightly agree* to *agree* range are consistent with previous research examining an earlier version of the BASC-3 BESS with elementary and middle school teachers (Miller et al., 2014). Average usability scores in this study are also consistent with what would be expected based on previous research examining other mental health screening tools (e.g., Direct Behavior Rating Single Item Scales [DBR-SIS; Smith et al., 2018]; Social Skills Improvement System [SSiS; Hartman et al., 2017; Miller et al., 2014], and Student Internalizing and Externalizing Behavior Screeners [SIBS, SEBS; Hartman et al., 2017]). In these studies, agreement on URP-A scales for all tools ranged from 3.85 to 4.81 (Miller et al., 2014), 4.36 to 5.47 (Smith et al., 2018), and 4.49 to 4.77 (Hartman et al., 2017).

Implications

Taken together, these results indicate that parents and teachers of children in preschool and early elementary school view UMHS to be appropriate and acceptable, and teachers believe that the BASC-3 BESS is a usable tool. When considered alongside previous research examining the acceptability and usability of various mental health screening tools, the present study's results provide further evidence that UMHS is considered an acceptable practice by teachers. Furthermore, this study extends the available multistakeholder research (Briesch et al., 2020) by providing additional evidence of parents' similarly positive beliefs about the acceptability and appropriateness of UMHS during the early school years. Knowledge about parent-reported perceptions of UMHS may be used to guide school personnel, such as teachers and school psychologists, who are involved in implementing mental health screening practices. Accumulating evidence from this study and previous research (e.g., Briesch et al., 2020; Greer et al., 2012) indicates that parents are likely to endorse UMHS. As such, schools are encouraged to improve home–school and community partnerships as they engage in early psychosocial intervention and prevention efforts.

The emerging evidence that school stakeholders perceive UMHS practices to be acceptable and appropriate and

the BASC-3 BESS to be usable can be interpreted in light of previous work indicating that stakeholder acceptance contributes to limited uptake of UMHS (e.g., Dever et al., 2012). This suggests that stakeholder attitudes may be leveraged to support adoption, implementation, and scale-up of UMHS. As administrative support is critical not only in decisions to adopt UMHS, but also in its successful implementation (e.g., Greer et al., 2012), parent, teacher, and other school-based leaders can serve as champions of UMHS by advocating both within their schools and to district-level administrators about the importance and utility of UMHS for supporting children's mental health. School mental health and UMHS advocates can further leverage stakeholder demand to create pressure for change (Aarons et al., 2011) within a multifaceted and dynamic approach to facilitating system-level change in support of UMHS. Furthermore, given likely concerns among stakeholders about their ability to regularly complete UMHS measures, and relatively lower agreement from teachers about the acceptability and feasibility of the BASC-3 BESS, implementation teams can prioritize strategies to reduce burden and demands on informants. For example, this may be accomplished by selecting more efficient measures, streamlining administration and scoring procedures (e.g., via online administration, building UMHS into existing professional development time, or offering parents opportunities to participate during conferences), or providing personnel support (e.g., roaming substitutes, childcare) when teachers and parents are asked to complete rating scales.

Despite the positive attitudes evidenced by teacher and parent stakeholders in this and other recent research, implementation of UMHS in schools continues to lag, suggesting that attending only to supporting stakeholder attitudes may be insufficient in advancing UMHS implementation. Indeed, structural- and organizational-level factors, including financial resources and system capacity to intervene for those identified, are commonly cited as barriers to UMHS implementation (e.g., Bruhn et al., 2014). Thus, strategies aimed at establishing policies and supporting funding for UMHS at local, district, and state levels in addition to those that support the application of UMHS data to student- and school-level intervention decisions (e.g., resource mapping, integrating data within multitiered intervention frameworks) are important for further understanding how best to support implementation of UMHS. Improving implementation of UMHS will likely require a multifaceted approach, including attention to individual-level, screening process–level, and systems-level factors affecting decisions to adopt and implement.

Limitations and Future Directions

This study's findings must be interpreted with important limitations in mind. The relatively small sample size, particularly for teachers, restricted demographic characteristics of

the sample, and focus on the preschool and early elementary school settings limits this study's generalizability. It will be important for future studies to more comprehensively sample schools across the United States, including parents and teachers of children in late elementary, middle, and high schools, to further an understanding of factors impacting implementation of UMHS across school contexts and age levels. Limitations in the size of the teacher sample further precluded our examination of variability in this study's results based upon participant characteristics (e.g., years of experience, ethnicity, preschool vs. elementary teaching certification). Future research with larger, more representative samples is needed to more fully understand how attitudes toward UMHS may vary between preschool and elementary school teachers and parents. In addition, future research should investigate attitudes toward UMHS among a wider range of school stakeholders, such as principals and school district administrators, who may be able to more immediately influence decisions to adopt and implement UMHS.

In addition, all data included in this study were from a larger longitudinal study collecting UMHS data from preschool, kindergarten, and first grade parents and teachers across 3 years, and data regarding participants' attitudes were collected following their completion of UMHS measures. Therefore, parents and teachers each had been exposed to UMHS procedures during one, two, or three academic years. Given that parents and teachers in this study had agreed to participate in the larger UMHS project, it is possible that their attitudes about UMHS may be more positive than those of individuals who did not participate in this study, or they may be due to social desirability effects. Although trends in parents and teachers' attitudes observed in this study are consistent with findings in previous research with teachers (Greer et al., 2012) and parents (Briesch et al., 2020), replication of this study's findings with samples that do not have prior exposure and experience with UMHS is important for further understanding what contributes to decisions to adopt and implement screening practices. In addition, parent and teacher attitudes were measured in this study following their participation in screening using the BASC-3 BESS and PSC-17 and thus may not be generalizable to other mental health screening measures or procedures. Replication of this study's results with additional attitude measures (e.g., Aarons, 2004) and in reference to other UMHS instruments and in alternative contexts is needed.

In addition, the URP-A measure was only administered to teachers and was completed in reference to the BASC-3 BESS. Thus, results are not generalizable to all mental health screening measures and require replication with additional UMHS instruments and with parent informants. Furthermore, internal consistency reliability for the System Support scale of the URP-A was poor for this study's sample, indicating that the results for this domain must be interpreted with caution; thus providing further indication of the need for replication with additional samples. Given limitations in internal consistency reliability of this scale also evidenced in previous studies (e.g., Miller et al., 2013), additional research may be needed to refine the measurement properties of this scale.

Conclusion

Overall, parents and teachers of children in preschool and early elementary school who have participated in UMHS reported strong agreement about the acceptability and appropriateness of UMHS, and teachers indicated the BASC-3 BESS to be a usable measure. However, recent surveys of school stakeholders indicate that few schools currently engage in mental health screening practices (Bruhn et al., 2014). Although preliminary in nature, this study contributes to a further understanding of what factors may be associated with the implementation of UMHS practices in preschools and early elementary schools. Understanding perceptions of acceptability of UMHS measures is important in informing UMHS implementation protocols, including for continued collaboration with school-based partners (e.g., strategies to reduce survey fatigue). Once engaged in screening, parent and teacher stakeholders have largely positive beliefs about the acceptability and appropriateness of screening for their early school contexts, which may be leveraged to support sustainment of UMHS. Additional research is needed to understand what additional implementation supports are required during initial adoption decisions and how other stakeholders (e.g., administrators) and system context factors shape decision-making regarding UMHS. This knowledge can further inform the design and selection of individual-level implementation strategies to increase adoption, implementation, and sustainability of UMHS.

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