in Kooperation mit / in cooperation with:

Pabst Science Publishers*https://www.psychologie-aktuell.com/journale/empirische-sonderpaedagogik.html*

An Integrated Model for School-Based Mental Health Assessment in Inclusive Education

Gino Casale[a] & Andres De Los Reyes[b]

[a] University of Wuppertal, Germany
[b] University of Maryland at College Park, United States of America

Summary

Mental health problems impact students' social, emotional, and academical development, and as such these problems strongly predict learning difficulties and academic achievement generally. Students with disabilities and special needs are at greater risk for mental health problems. The assessment of mental health problems in students is therefore an important task for service providers in inclusive classrooms (especially special education teachers) in order to inform evidence-based school mental health services. In this paper, we propose an integrated conceptual model for assessing mental health in students in inclusive classrooms. The new model incorporates the consideration of teachers' professional competence in assessment, early identification of mental health problems, the contextualization of multi-informant data (e.g., students, parents, teachers), and the use of evidence-based yet usable methods. The model is specified to inclusive school contexts, and incorporated into a Multi-tiered System of Support (MTSS) framework.

Keywords: mental health, assessment, special education, inclusive education

Ein integriertes Modell zur Diagnostik der psychischen Gesundheit von Schülerinnen und Schülern in inklusiven Schulen

Zusammenfassung

Probleme der psychischen Gesundheit beeinflussen die soziale, emotionale und akademische Entwicklung von Schülerinnen und Schülern. Dementsprechend können sie Lernschwierigkeiten und Schulleistungen der betroffenen Kinder und Jugendlichen bedingen. Schülerinnen und Schüler mit Behinderungen bzw. sonderpädagogischem Förderbedarf haben ein erhöhtes Risiko für die Entwicklung von psychischen Problemen. Die Diagnostik der psychischen Gesundheit ist dementsprechend eine wichtige Aufgabe für professionelle Fachkräfte (insbesondere Lehrkräfte für sonderpädagogische Förderung) in inklusiven Klassen, um eine Datengrundlage für evidenzbasierte schulische Förderung der psychischen Gesundheit zu schaffen. In diesem Beitrag schlagen wir ein integriertes konzeptionelles Modell für die Diagnostik der psychischen Gesundheit von Schülerinnen und Schülern in inklusiven Klassen vor. Das neue Modell verbindet die professionelle diagnostische Kompetenz von Lehrkräften, die frühzeitige Erkennung psychischer Probleme, die Kontextuali-

sierung diagnostischer Daten aus Schüler-, Lehrkraft und Elternsicht sowie die Nutzung von evidenzbasierten und gleichzeitig anwendbaren Diagnose- und Fördermethoden. Das Modell wird für inklusive Settings spezifiziert und in den Kontext mehrstufiger Diagnose- und Fördersysteme eingebettet.

Schlüsselwörter: psychische Gesundheit, Diagnostik, Sonderpädagogik, inklusive Bildung

Inclusive education and mental health among children and adolescents represent two pressing, global topics. On the one hand, inclusive education of people with disabilities is a fundamental human right that most countries commit to implementing (United Nations, 2006). On the other hand, mental disorders occur approximately in one-fourth of all children and adolescents, and they are among the leading causes of illness of children and adolescents in Europe and America (Baranne & Falissard, 2018). Both global challenges of inclusive education and young peoples' mental health are strongly interconnected. For instance, inclusive education calls for the right of students with disabilities and special needs to participate in general education (United Nations, 2006). Children and adolescents with disabilities are significantly more likely to have mental health problems and low health-related quality of life (Karg et al., 2021). Furthermore, evidence suggests strong associations between mental health problems, educational achievement, and academic performance (e.g., Deighton et al., 2018; Sörberg et al., 2019). Thus, inclusive education explicitly targets mental health as a core construct in order to ensure the right of students with disabilities to get the most effective education.

School mental health support therefore represents a key task of school personnel, especially teachers, working in inclusive classrooms with students with disabilities and special needs. In practice, however, school mental health support still faces at least three gaps. First, far too few students receive appropriate services (*service delivery gap*). Second, research-based methods are rarely used in educational settings (*research to practice gap*). Third, the mental health services that students receive often yield suboptimal outcomes, because mental health assessments often fail to accurately characterize the contexts where students' needs manifest (*needs-to-goals gap*). As we outline below, based on extensive empirical work across many disciplines involved in mental health service delivery (e.g., special education, psychology, medicine), addressing each of these gaps requires adequately implementing evidence-based approaches to mental health assessment.

In this paper, we propose an integrated conceptual model for assessing mental health in students in inclusive classrooms. The model incorporates the consideration of teachers' professional competence in assessment, the early identification of mental health problems, the contextualization of multi-informant data (e.g., students, parents, teachers), and the use of evidence-based yet usable methods. The model is incorporated into a whole-school multi-tiered system of support (MTSS) framework. While the model is to be applied in an inclusive and preventive sense to *all* students in a school, it places a special emphasis on students with disabilities and special needs, as they are a particularly vulnerable group for developing a mental disorder.

Inclusive Education and School Mental Health

The concept of inclusive education recognizes the right to education for all children, and is enshrined in international human rights law. In 1994, the United Nations laid the foundation for global change in education systems with its Salamanca Statement and Framework for Action on Special Needs Education. In the statement, the state parties committed themselves, among other things, to enshrining in law the right to inclusive education, especially for students with disabilities and special educational needs (United Nations, 1994, ix). The principles of the Salamanca Declaration and the associated Action Plan were then also enshrined in human rights law in the Convention on the Rights of Persons with Disabilities (CRPD; United Nations, 2006), which has been ratified by over 180 nation-states. In its Article 24, the CRPD regulates the legal situation of the school education of persons with disabilities and special needs in such a way that people may not be excluded from the general school on the basis of impairments and should be given access to the general school (United Nations, 2006). Furthermore, the convention emphasizes the right to effective education and the maximization of social and academic competencies for all students (United Nations, 2006). Therefore, inclusive education is a legal and moral imperative that reflects a society's commitment to social justice and equality of opportunity (Dyson, 2011).

Both the Salamanca Declaration and the CRPD highlight students with disabilities and special needs as a target group for ensuring their explicit right to inclusive education. Along these lines, students with disabilities and special needs often report about less well-being and more mental health problems compared to their peers without special needs (Karg et al., 2021; Myklebust and Myklebust, 2017; Skrzypiec et al., 2016). In particular, children with disabilities and special needs may be at greater risk of experiencing social-emotional difficulties, such as anxiety, depression, or low self-esteem (e.g., Honey et al., 2011; Seigel et al., 1990). Thus, the targeted assessment and support of students' mental health in inclusive education with a special focus on students with disabilities and special needs represents an important task in schools. Understanding the prevalence and risk factors associated with mental health problems in children and adolescents is therefore critical to developing effective prevention and intervention strategies that promote positive mental health outcomes, and ultimately promote a culture of inclusive education.

Mental Health in Children and Adolescents

Mental health is not a binary construct, but appears to traverse a continuum of functioning (e.g., Kotov et al., 2017). Dual-factor models describe mental health as a dynamic state constituted by an individual's positions within two continua of psychosocial stress/psychopathology (e.g., externalizing and internalizing behavior problems) and subjective well-being (e.g., the ability to manage feelings and thoughts; Suldo & Shaffer, 2008). This conceptualization runs in conflict with prevailing definitions of mental disorders, which are described in classification systems as discrete, with specific criteria required for a diagnosis. The discrete nature of diagnosis poses a problem for understanding the long-term impacts of mental health concerns on functioning. To promote mental health in inclusive schools, it is crucial to advocate for a dynamic and continuous understanding of mental health related to dual-factor models. This approach places emphasis on the subjective well-being of individual students and paves the way for preventive interventions that can help avoid the development of clinical disorders. As a consequence, the target variable for school mental health assessment and support should be based on the dual-factor concept containing subjec-

tive well-being and psychosocial problems.

Mental health problems are a serious growing problem among children and adolescents in general, and specifically for those with disabilities and special needs. Mental disorders are considered as the leading cause of disability in young people aged under 25 years and they are likely to become one of the greatest public health challenges of the 21st century (Baranne & Falissard, 2018; Erskine et al. 2015). It is estimated that 25% of all children and adolescents suffer at least some of the time from mental health problems associated with impaired functioning at school (Merikangas et al., 2010). The prevalence of mental disorders is much higher among children and adolescents with disabilities and special needs. In an analysis of data from the representative Child and Adolescent Health Study (KiGGS Wave 2), Karg et al. (2021) found that children and adolescents with disabilities have more than five times the risk of having a mental disorder. Mental health problems in children and adolescents are associated with many short-, mid- and long-term consequences on the educational level. For instance, in their longitudinal birth cohort study with 1700 participants, Agnafors et al. (2021) found that behavioral and emotional problems at age 3 were associated with performing below grade at age 12. In the same vein, mental health problems at age 12 were associated with lack of complete final grades from compulsory school and non-eligibility to higher education (Agnafors et al., 2021). A study of 9157 adolescents from Norway revealed that depressive symptoms were associated with a higher probability to leave school without graduation, even when controlled for externalizing behavior problems and parental education (Askeland et al., 2022). Adolescents showing comorbid externalizing and internalizing symptoms showed the highest risk for school failure (Askeland et al., 2022). Furthermore, mental health problems can negatively impact a child's ability to learn, form relationships, and participate fully in classroom activities (e.g., Krull et al., 2018; McLeod et al., 2012).

Interrelated Problems of Mental Health Services in Inclusive Classrooms

As we have shown, school health promotion is an important mandate of inclusive schools. However, our literature review across multiple disciplines (e.g., special education, psychology, psychiatry) on the implementation of school mental health in schools identified a large body of empirical studies that indicate numerous problems (see figure 1). The results of our research indicate that too few students receive mental health services (*service delivery gap*), that evidence-based assessment and support for school mental health are insufficiently used (*research to practice gap*), and that intervention goals in school mental health are often insufficiently contextualized and thus miss the needs of the students (*needs-to-goals gap*). It should be noted that these three gaps have already been established in the literature, across several areas of study, and with implications for work in multiple disciplines (for intensive overviews, please see De Los Reyes et al., 2019a,b; De Los Reyes et al., 2020; Talbott et al., 2023). As such, we synthesize and draw links among these gaps, with a specific focus on inclusive education. To address this broader aim of our paper, we briefly describe each of these gaps and their links to inclusive education.
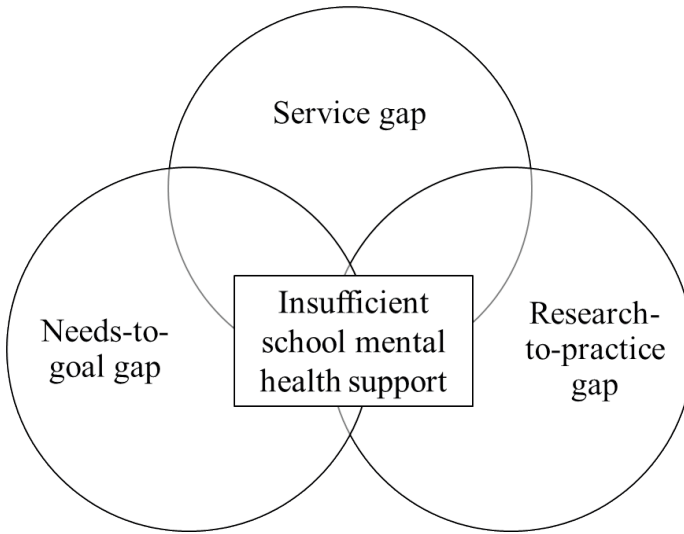
Figure 1
Three interrelated problems in school mental health practices.

Service Delivery Gap

The service delivery gap has two components. First, it describes that many children and adolescents with significant mental health impairments do not receive necessary and effective support in school (Forness et al., 2012). Second, it posits that school mental health services are disproportionately and unequally distributed and that especially students with internalizing problems are underrepresented (Papandrea & Winefield, 2011). Studies indicate that approximately half of school-aged children and adolescents with mental disorders do receive mental health treatment in schools (Adelman & Taylor, 2009). For instance, Barican et al. (2022) found in a meta-analysis that among children with mental disorders, only 44.2% (95% CI 37.6% to 50.9%) received any services in or out of school. In the same manner, results from the National Comorbidity Survey in the United States show that 45.3% of adolescents with a mental disorder received past-year school mental health services (Greif Green et al., 2013). In a

study with 933 youth aged students, Langer et al. (2015) found that almost 53% of the sample reported mental health service use in schools. Youth with higher parental incomes were more likely to receive school-based mental health services (Langer et al., 2015). However, it is often argued that primarily internalizing behavior problems, such as anxiety or depression, in the school often go unnoticed and untreated (Marsh, 2016; Stormont et al., 2015). In a German study of special schools with a focus on emotional and social development, which is the closest concept to school mental health services in Germany, Hanisch et al. (2023) found that of 745 children and adolescents, 6.5% had substantial anxiety problems and 15% had substantial depression problems. In comparison, 60.5% of all students in the same sample showed ADHD problems and 25.9% showed conduct problems (Hanisch et al., 2023).

One reason for this "underservice" is that many students with mental health problems remain unidentified and their problems are not recognized until they already correspond to symptoms of a clinical disorder

(e.g., Breitenstein et al. 2009). Few schools systematically screen for behavioral and emotional risk, and those that do rely on subjective referral systems that have been linked to disproportionality in special education and exclusionary discipline practices (Kamphaus et al., 2014). Thus, early assessment of possible mental health problems in students and analysis of behavior patterns (e.g., externalizing and/or internalizing) is lacking. This problem precludes the application of early support services that have been shown to be effective in preventing the escalation of developmental trajectories (e.g., Durlak et al. 2011). Alternatively, early identification of the aforementioned problems can promote prevention and counteract the development of mental disorders (e.g., Costello 2016).

Research-to-Practice Gap

The research-to-practice gap (often also science-to-practice gap or implementation gap) describes the discrepancy between scientific knowledge about evidence-based methods and their actual implementation in practice. Cook and Odom (2013, p. 136) "suspect that the gap has been present in special education as long as research and practice have co-existed". Research on the actual utilization of evidence-based practice for school mental health indicates that only 1/5 to 1/3 of all practitioners in school mental health rely on evidence-based methods, even though they are aware of relevant programs and approaches (Evans et al., 2013; Vostanis et al., 2012). In a qualitative study with special education teachers on their use of teaching and instruction for students with mental health problems, Casale et al. (2023) found that the teachers' work based mainly on generic pedagogical principles such as student-orientation or societal participation rather than using evidence-based practices. Most studies indicate that the gap particularly pertains to the utilization of assessment methods, such as screenings or self-reports (e.g., Evans et

al., 2013). Connors et al. (2015) found that school practitioners face practical barriers to using assessments, such as difficulty reaching parents and not having access to preferred measures. Lyon et al. (2016) found that practitioners initially used standardized assessment tools somewhat infrequently, but increased use after training and consultation.

A lack of fidelity of evidence-based school mental health support is associated with mental health problems in students. For instance, in a large-scale study with more than 16,000 students from 54 primary-, middle-, and high-schools, Reinke et al. (2021) examined the longitudinal associations between the fidelity of school-based prevention programs and students' behavioral problems over three years. They found that lower levels of implementation of school mental health prevention and intervention significantly predicted increasing social, emotional, and behavioral problems with an Odds Ratio of 1.28 (Reinke et al., 2021, p. 24). On the other hand, the implementation of evidence-based practices can effectively reduce mental health problems in students. It also holds the potential for economic benefits. An economic evaluation of the upscaled implementation of Positive Behavior Support in Maryland using shadow prices calculations indicates the potential for intense cost savings associated with mental health outcomes, such as aggressive/disruptive or prosocial behaviors (Bradshaw et al., 2020).

Needs-to-Goals Gap

The Needs-to-Goals Gap refers to the disparity between the mental health needs of students and the services provided by schools to address these needs (De Los Reyes, Talbott et al., 2022). In inclusive education, this gap can be exacerbated, as students with mental health concerns require specific and often individualized support to succeed in the classroom. This construct is rooted in the idea that a 'one-size-fits-all'

approach to mental health services is ineffective in inclusive education (Splett & Maras, 2011), and the key to personalizing services lies with the use of assessment approaches designed to yield context-sensitive data about students' needs (e.g., parent-reported needs at home; teacher-reported needs at school; see also De Los Reyes, Wang et al., 2023). Teachers and school practitioners, as reported, rarely use standardized approaches to assessing mental health in the school context. Consequently, we can assume that the gap between what multiple informants report about mental health and utilizing these reports in school-based decision-making is much larger in school delivery settings than other settings where use of multi-informant approaches is more common (e.g., community mental health settings and hospital-based clinics; see De Los Reyes, Talbott et al., 2022).

Needs-to-goals gaps can have severe consequences for both teachers and students. Teachers may struggle to identify and address the mental health needs of their students, leading to a negative impact on their academic performance and social-emotional development (Ekornes, 2017). This can also lead to increased stress and burnout for teachers, as they may feel ill-equipped to address their students' mental health concerns. On the student level, needs-to-goals gaps can lead to adverse mental health outcomes, such as anxiety, depression, and behavioral problems (De Los Reyes, Talbott et al., 2022). These students may also experience social isolation and academic difficulties, as their mental health concerns are not being addressed. Additionally, students from marginalized communities may face additional barriers to accessing mental health services, exacerbating the gap further (Splett & Maras, 2011).

Conclusion

The gaps presented are closely interwoven and influence each other. For example, the lack of use of early screening or evidence-based methods is associated with teachers' implementation of evidence-based assessment when making decisions about educational programming (Briesch et al., 2022). At the same time, needs-to-goals gaps also result from insufficient use of assessment tools (De Los Reyes, Talbott et al., 2022). However, this is not surprising, since school mental health services have as core mission using evidence to inform practices in the classroom, and if there is a lack of appropriate use of assessment for practical purposes (such as identifying students at risk, choosing appropriate interventions, or meeting the students' mental health needs) this affects multiple areas (e.g., Weist et al., 2014). Therefore, related sciences such as implementation science or science of teaching, learning, and instruction are closely linked to assessment practices that can build the primary source of evidence for practice (see McLeod et al., 2022).

The service delivery gap is bolstered by not using early universal mental health screenings. As we reported, only very few practitioners use systematic assessments early on to assess the mental health status of their students and identify potential issues in a timely manner. This omission increases the risk of problems going unnoticed, particularly internalizing problems being overlooked. The research-to-practice gap per se refers to school mental health assessment, as many studies demonstrate that systematic mental health assessment is rarely utilized by teachers in schools. Needs-to-goals gaps primarily result from teachers rarely utilizing a multi-informant approach in mental health assessment. As a result, they are unable to contextualize behavioral data and likely lack the competence to make informed service delivery decisions based on multi-informant data. It can therefore be concluded that a changed and integrated understanding of mental health assessment can lead to a reduction of the mentioned gaps.

An Integrated Model for Mental Health Assessment in Inclusive Schools

In the following, we propose an integrated conceptual model (see figure 2) that incorporates potential solutions to address the aforementioned problems. The model and therefore the proposed claims are based on empirical findings of mental health assessment. The model elements were inferred based on the reported findings and existing knowledge of school mental health assessment. Accordingly, we seek to make *heuristic connections* between empirical facts regarding the current implementation of school mental health assessment and the science of school-based mental health assessments. These inferences and claims might provide the basis for research and practice in this field.

The model centers the *professional competency of teachers* in the field of mental health assessment. This part of the model was derived due to the fact that teachers often report insufficient competencies in school mental health (e.g., O'Farrel et al., 2022). Furthermore, problems such as the service delivery gap, the research-to-practice gap, and the needs-to-goals gap frequently arise from teachers' lack of knowledge or unwillingness to use and interpret certain diagnostics (e.g., Briesch et al., 2022). Subsequently, the use of *universal mental health screenings* including *multi-informant data and their contextualization* for interpretation and use of the data will be described. This focus was chosen, because teachers rarely use universal screenings, and when they do, they typically rely on only one source of information. This increases the risk of false negatives and incorrect decisions that are not student-focused. The assessment results guide the planning, implementation and data-based evaluation of *evidence-based mental health treatments* for inclusive schools. We incorporate evidence-based practice into the model primarily because it serves as the central goal of collecting assessment data and provides a systematic link between assessment data and intervention planning. Furthermore, evidence-based practice helps reduce the research-to-practice gap. Finally, empirical evidence indicates that school mental health services (including assessment and intervention) are most effective when implemented as a whole-school approach involving all stakeholders in the school, as well as school mental health professionals (Goldberg et al., 2018; Weare & Markham, 2005). Therefore, the model and the proposed strategies are embedded in a MTSS framework, which might serve as an effective whole school approach for inclusive education in order to promote mental health and creating supportive climates (see Grosche & Casale, 2021).

The basic assumptions of the model are as follows. The target construct - student mental health - is the focus of the model. This is constituted by the students' subject well-being and psychosocial stress/psychopathology. The starting point in the assessment process is the professional competency of the teachers and their mental health literacy. These influence the selection and use of assessment tools, such as universal mental health screening, and the collection of multi-informant data. Universal mental health screening and collection of multi-informant data results in contextualized interpretation and use of assessment data, which is in turn affected by the teachers' competencies. Interpretation and use of diagnostic data are the critical foundation for drawing conclusions about student mental health. From this, evidence-based mental health practices are then selected, planned, implemented, and evaluated. The complete process of mental health assessment is embedded in multi-tiered systems of support, and thereby influenced schoolwide through professionalization strategies and multi-professional collaborations.
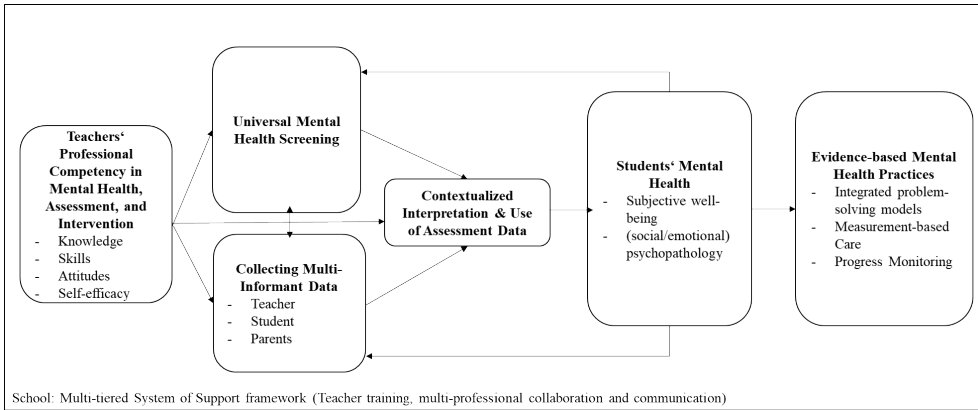
Figure 2
The integrated model for mental health assessment in inclusive classrooms.

Teachers Professional Competency in Mental Health Assessment and Intervention

In the assessment of mental health in inclusive schools, teachers are usually the key decision-makers. As schools serve as the primary access point for mental health services and have the ability to reach every student on a daily basis, the involvement of teachers in initiating mental health assessment becomes crucial (Stormont et al., 2011). They are in the position to identify mental health needs in students as early as possible, to initiate and implement systematic and standardized assessment as well as being involved in inter-professional collaboration in order to start more comprehensive and intense mental health assessments such as functional behavior analysis (Franklin et al., 2012). Accordingly, the professional competency of teachers in mental health assessment is a central prerequisite for diagnostic procedures, and therefore to address the aforementioned gaps in school mental health.

Teachers' professional competencey in mental health literacy, assessment, and intervention refers to their knowledge of mental health disorders and their symptoms, the ability to recognize warning signs of mental health problems, the skills to communicate

effectively with parents and mental health professionals, and the ability to implement evidence-based interventions (Kutcher & Wei, 2020). The importance of these competencies is supported by empirical evidence that has shown that teachers who possess these skills are better equipped to support students' mental health needs (for an overview see Oberle & Schonert-Reichl, 2017). However, studies have consistently shown that many educators lack the necessary training, resources, and support to meet these demands effectively (e.g., Dadaczynski et al., 2022; Yamaguchi et al., 2020). With a focus on teachers' perceptions on school mental health assessment, O'Farrell et al. (2022) conducted a systematic review including 19 studies and found that teachers report a lack of training in assessment of mental health and not being responsible for mental health services as key barriers for implementing mental health assessment in schools.

Teachers' competency in mental health assessment involves the ability to a) select evidence-based and technically adequate assessment tools, b) accurately identify and c) evaluate students' mental health difficulties (Jorm, 2012). Teachers with strong mental health literacy are better equipped to identify and understand mental health difficulties among students as well as to

develop targeted intervention plans based on individual student needs (Rossetto et al., 2016).

Claim 1: High teacher competencies in school mental health assessment (i.e., knowledge, attitudes, beliefs as well as their ability to select and apply evidence-based assessment) improves the quality and effectiveness of school mental health practice.

Universal Mental Health Screening in Schools

Universal mental health screening is a proactive approach aimed at identifying individuals who may be at risk for mental health issues (Weist et al., 2007). Those tools "are conducted with all students in a classroom […] to identify those at risk of behavioral difficulties or emotional and behavioral disorders (EBD) who could potentially benefit from specific instruction or intervention" (Glover & Albers, 2007, 118). Universal mental health screening can play a crucial role in identifying students who may require additional mental health support within inclusive classrooms (Connors et al., 2022).

Numerous studies have explored the potential of universal mental health screening to identify at-risk students in schools, to inform evidence-based mental health interventions, and to prevent the system from more intensive future costs, e.g. for rehabilitation or medication. For instance, Essex et al. (2009) showed that universal mental health screening at school entry can accurately detect children at-risk for behavioral problems, and can therefore provide a basis for developing optimal targeted intervention programs. In two studies by Eklund et al. (2009; 2014) it was shown that the use of universal screening procedures identified more at-risk students as more traditional school identification practices such as teacher referrals. Furthermore, Greif-Green et al. (2013) found that increased school engagement in early identification was significantly associated with mental health service use for adolescents

with mild/moderate mental and behavior disorders. Through these effects, universal mental health screening saves high costs in the health sector and in occupational rehabilitation in the medium to long term (Le et al., 2021). In this context, the school as a prevention setting is particularly effective (Le et al., 2021, p. 19): "In children and adolescents, screening plus psychological interventions [...] at school were the most cost-effective interventions for prevention of mental disorders [...]."

Claim 2: Early use of universal mental health screening can reduce the service gap in school mental health support and help ensure that students' mental health problems do not go undiagnosed.

Multi-Informant Data Collection and Contextualization

Mental health assessments that rely on a single source of information, such as self-report measures or observations from school practitioners, may provide an incomplete picture of an individual's mental health status (see De Los Reyes, Epkins et al., 2023; Kraemer et al., 2003; Makol et al., 2020). To overcome these limitations, the use of multi-informant assessment — in combination with contextualized validity criteria — has emerged as a valuable approach. Multi-informant assessment involves gathering information from data sources who observe students within and across relevant contexts, including the student, their family members (e.g., caregivers), teachers, and peers. Contextualized validity criteria refer to gathering data about environmental and situational factors that may influence a student's mental health, such as their social context, cultural background, and educational setting.

Research on multi-informant assessments highlights the limitations of both single-informant approaches and approaches that rely on a limited number of contexts and/or modalities of measurement. For example, when clinically assessing social anxiety among adolescents, parents' reports about adolescent

social anxiety fail to predict adolescents' perceived reactions to interacting with same-age unfamiliar peers (Deros et al., 2018). Instead, approaches that integrate parents', adolescents' and peers' reports of adolescent social anxiety predict adolescents' reactions to same-age unfamiliar peers, more so than any single informant (e.g., Cannon et al., 2020; Charamut et al., 2022; Makol et al., 2020). Further, these effects are not unique to social anxiety and traverse multiple mental health domains (e.g., autism, depression, disruptive behavior) and periods of development (e.g., preschool, middle childhood, adolescence; for a review, see De Los Reyes & Epkins, 2023). Consequently, the latest recommendations on use of multi-informant assessments and contextualized data processes call for not only use of multiple informants, but also independent, context-sensitive assessments designed to validate data from informants' reports, based in large part on the patterns or points at which informants' reports agree and disagree (for a review, see De Los Reyes, Wang et al., 2023). For example, in a recent study of school-based assessments of students' psychosocial impairments, researchers demonstrated that integrating parent, teacher, and youth reports of such impairments predicted students' behavior on independent assessments of how they function at home and school, and to a far more robust, consistent extent than the report of any one informant (see De Los Reyes, Cook et al., 2022).

Claim 3: Systemic multi-perspective assessment of student mental health by multiple informants and assessment modalities can lead to support methods that are more appropriate, meet students' real needs, and thus reduce needs-to-goals gaps.

Evidence-based Mental Health Assessment and Intervention

Evidence-based practice (EBP) is an approach that integrates the best available research evidence with professional's expertise and student values to guide decision-making in school mental health. Evidence-based mental health assessment in inclusive classrooms involves systematically evaluating students' emotional well-being, behavioral patterns, as well as social functioning and it includes assessment *methods* (e.g., specific tools) and *processes* (e.g., integrating problem-solving models) based on empirical evidence and clinical utility (Arora et al., 2016; McLeod et al., 2022). One potential specification of EBP particularly relevant to mental health assessment is *measurement-based care (MBC)*. MBC involves the use of systematic assessments to monitor student progress, determine the effectiveness of interventions, and make data-driven decisions about treatment (Scott & Lewis, 2015). It therefore explicitly links school-based assessment to implementation science. Theoretical explanations for MBC suggest that it can improve treatment outcomes by increasing treatment fidelity, enhancing treatment engagement, and promoting the use of evidence-based practices (Parikh et al., 2020). Empirical research on the effects of MBC in children and youth is still sparse, but results from a randomized control trial indicate positive benefits of MBC on youth mental health (Bickman et al., 2011). What sets MBC apart from alternative concepts is its emphasis on systematic and regular measurements to inform and monitor treatment. Unlike traditional approaches, MBC relies on objective data and evidence-based assessments to guide practical decisions (Wright et al., 2020). This data-driven approach differentiates MBC from other concepts by promoting a more personalized and tailored treatment approach. By continuously measuring and evaluating symptoms, functioning, and well-being, MBC allows for an individualized understanding of each student's needs, strengths, and challenges. This, in turn, enables practitioners to make informed treatment decisions and adjustments as needed. Additionally, MBC's emphasis on ongoing measurement and monitoring facilitates the evaluation of treatment effectiveness and

progress over time, fostering continuous improvement. The integration of MBC in school mental health has the potential to enrich the field by providing a data-informed, individualized, and evidence-based framework for promoting student well-being and delivering targeted interventions.

When it comes to schools, research on the use of MBC in educational settings is emerging but promising. For instance, Connors and colleagues (2022) empirically derived a list of implementation strategies that might be efficient in order to use MBC in school mental health. By providing objective data on treatment progress and outcomes, MBC can help to bridge the gap between research and practice and increase the use of evidence-based practices in schools (Weist et al., 2014). Furthermore, MBC can facilitate collaboration among stakeholders, including students, parents, teachers, and mental health professionals, to ensure that interventions are tailored to the specific needs of each student (Weist et al., 2014). Finally, McLeod et al. (2022) argued that MBC is a usable and useful approach for applied settings that is easy to use, but strongly informs on practical interventions.

Claim 4: Evidence-based practices that closely link assessment, intervention, progress monitoring, and implementation are usable for school mental health and can help reduce the research-to-practice gap in school mental health.

MTSS as Organizational Framework

As mentioned above, empirical evidence indicates that whole-school mental health services are most effective, and that MTSS might serve as an effective whole-school approach for inclusive education. They aim to involve all stakeholders in the school, as well as school mental health professionals, in order to provide the most effective prevention and intervention strategies. Therefore, we provide an overview of MTSS as organizational framework for school mental health assessment.

MTSS is an evidence-based approach that provides a comprehensive structure for identifying and supporting students' mental health needs within a school setting. MTSS is rooted in a multi-tiered prevention framework that emphasizes early intervention and support across various levels of intensity. MTSS incorporates a three-tiered system that includes universal (Tier 1), targeted (Tier 2), and intensive (Tier 3) supports to meet the diverse mental health needs of students. MTSS offers a structured approach to mental health assessment in inclusive schools, addressing the unique challenges and needs of diverse student populations (Marsh & Mathur, 2020). By incorporating mental health assessments into each tier, schools can identify students who may be at risk for mental health difficulties (through universal screenings on tier 1), provide targeted interventions to address emerging concerns (through data-driven evidence-based practices such as MBC on tier 2), and offer intensive support to students with diagnosed mental health conditions on tier 3.

Empirical evidence supports the effectiveness of MTSS in improving students' mental health outcomes. For example, a study by Cook et al. (2015) demonstrated that the implementation of MTSS (i.e. Positive Behavior Intervention Support) led to significant improvements in students' mental health and reductions in externalizing behaviors among students. Additionally, a in a 3-year longitudinal study with more than 1200 elementary students, Battal et al. (2020) found that the implementation of a mental health-focused MTSS was associated with significant and sustainable improvements of students' overall mental health.

One critical component of school mental health MTSS is multi-professional collaboration and communication between relevant stakeholders, and practitioners (Marsh & Mathur, 2020). Collaboration refers to the cooperative effort among individuals or groups to achieve a common goal, while communication encompasses the exchange of information and ideas between parties

involved (Lawson, 2004). In the context of mental health assessment, collaboration involves the active involvement of teachers, school psychologists, counselors, parents, and relevant professionals to ensure a comprehensive understanding of students' mental health needs (Heatly et al., 2023).

Empirical evidence consistently highlights the significant benefits of multi-professional collaboration and communication in the context of school mental health. Research studies have demonstrated that effective collaboration among professionals leads to improved outcomes for students, including enhanced mental well-being and academic success. For instance, a study by Farmer et al. (2003) found that schools with strong collaboration and communication structures between teachers, counselors, and other mental health professionals showed reduced rates of behavioral problems and improved student functioning. Similarly, a meta-analysis conducted by Durlak et al. (2011) revealed that schools with comprehensive, collaborative mental health programs experienced significant improvements in students' social-emotional skills, attitudes, behavior, and academic performance.

Claim 5: Embedding school mental health in MTSS allows for a school organizational framework for mental health assessment that facilitates evidence-based and multi-professional mental health promotion.

Summary and Conclusions

Here, an integrated and conceptual model for mental health assessment in inclusive schools was presented. The model is based on empirical findings on the interrelationships and influences of various factors from mental health assessment and the psychosocial development of students. The foundation for the proposed model are evidence-based solutions for addressing significant problems in school mental health promotion.

The model is based on a total of five claims, informed by prior work. First, we claim that teachers' competencey influences the selection and use of diagnostic methods. Second, we claim that universal mental health screenings improves the accuracy of early identifications of at-risk students. Third, we claim that diagnostic findings should be obtained from multiple informants and that they should be contextualized holistically. This approach, in turn, influences the interpretation and use of the data and thus the interventions based on them. Fourth, we claim that orienting to the principle of evidence-based approaches to selecting and implementing funding can increase the success of prevention and intervention. In this context, in addition to the scientific merit of the methods, data-based verification of success is also important. Fifth, we claim that the mental health assessment efforts mentioned above should be embedded in a school-wide organizational model such as MTSS. In this way, important basic principles of successful diagnostics in schools - namely professionalization, communication and collaboration, as well as multi-professional problem solving - can be integrated into school-wide processes.

In summary, future evaluations of the newly developed model for mental health assessment in inclusive classrooms should focus on the design and evaluation of usable tools, including multi-informant versions, to capture the diverse aspects of students' mental health. Additionally, evaluations should address multi-informant discrepancies considering the unique contributions of each informant and the contextual factors that may influence their perceptions (De Los Reyes, Wang et al., 2023). By making these considerations, researchers can ensure the validity, reliability, and fairness of the mental health assessment model in inclusive classroom settings.

Furthermore, it is important to examine the postulated relationships in the model through empirical studies. While the mentioned relationships are empirically supported, the model as a whole has not yet been empirically tested. This is the task of

future investigations. It is valid to examine individual partial relationships between the constructs. Thus, the model provides a starting point for empirical studies on mental health assessment in inclusive contexts.

References

Adelman, H. S., & Taylor, L. (Eds.) (2009). *Mental health in schools: Engaging learners, preventing problems, and improving schools*. Corwin Press.

Agnafors, S., Barmark, M., & Sydsjö, G. (2021). Mental health and academic performance: A study on selection and causation effects from childhood to early adulthood. *Social Psychiatry and Psychiatric Epidemiology*, *56*(5), 857–866. https://doi.org/10.1007/s00127-020-01934-5

Arora, P. G., Connors, E. H., George, M. W., Lyon, A. R., Wolk, C. B., & Weist, M. D. (2016). Advancing Evidence-Based Assessment in School Mental Health: Key Priorities for an Applied Research Agenda. *Clinical Child and Family Psychology Review*, *19*(4), 271–284. https://doi.org/10.1007/s10567-016-0217-y

Askeland, K. G., Bøe, T., Sivertsen, B., Linton, S. J., Heradstveit, O., Nilsen, S. A., & Hysing, M. (2022). Association of Depressive Symptoms in Late Adolescence and School Dropout. *School Mental Health*, *14*(4), 1044–1056. https://doi.org/10.1007/s12310-022-09522-5

Baranne, M. L., & Falissard, B. (2018). Global burden of mental disorders among children aged 5-14 years. *Child and Adolescent Psychiatry and Mental Health*, *12*, 19. https://doi.org/10.1186/s13034-018-0225-4

Barican, J. L., Yung, D., Schwartz, C., Zheng, Y., Georgiades, K., & Waddell, C. (2022). Prevalence of childhood mental disorders in high-income countries: A systematic review and meta-analysis to inform policymaking. *Evidence-Based Mental Health*, *25*(1), 36–44. https://doi.org/10.1136/ebmental-2021-300277

Battal, J., Pearrow, M. M., & Kaye, A. J. (2020). Implementing a comprehensive behavioral health model for social, emotional, and behavioral development in an urban district: An applied study. *Psychology in the Schools*, *57*(9), 1475–1491. https://doi.org/10.1002/pits.22420

Bickman, L., Kelley, S. D., Breda, C., Andrade, A. R. de, & Riemer, M. (2011). Effects of routine feedback to clinicians on mental health outcomes of youths: Results of a randomized trial. *Psychiatric Services*, *62*(12), 1423–1429. https://doi.org/10.1176/appi.ps.002052011

Bradshaw, C. P., Lindstrom Johnson, S., Zhu, Y., & Pas, E. T. (2020). Scaling Up Behavioral Health Promotion Efforts in Maryland: The Economic Benefit of Positive Behavioral Interventions and Supports. *School Psychology Review*, *50*(1), 99–109. https://doi.org/10.1080/2372966X.2020.1823797

Breitenstein, S. M., Hill, C., & Gross, D. (2009). Understanding disruptive behavior problems in preschool children. *Journal of Pediatric Nursing*, *24*(1), 3–12. https://doi.org/10.1016/j.pedn.2007.10.007

Briesch, A. M., Chafouleas, S. M., Iovino, E. A., Abdulkerim, N., Sherod, R. L., Oakes, W. P., Lane, K. L., Common, E. A., Royer, D. J, & Buckman, M. (2022). Exploring Directions for Professional Learning to Enhance Behavior Screening Within a Comprehensive, Integrated, Three-Tiered Model of Prevention. *Journal of Positive Behavior Interventions*, *24*(4), 278–288. https://doi.org/10.1177/10983007211050424

Cannon, C. J., Makol, B. A., Keeley, L. M., Qasmieh, N., Okuno, H., Racz, S. J., & De Los Reyes, A. (2020). A paradigm for understanding adolescent social anxiety with unfamiliar peers: Conceptual foundations and directions for future research. *Clinical Child and Family Psychology Review*, *23*(3), 338–364. https://doi.org/10.1007/s10567-020-00314-4

Casale, G., Hamel, N., Durgut-Topcu, T. K., Schrage, M., Herzog, M., Weber, J., & Weber, S. (2023). Adaptiver Unterricht für Schüler/innen im Förderschwerpunkt Emotionale und soziale Entwicklung. Zieldimensionen, Unterrichtsprinzipien sowie Rezeptions- und Nutzungslogiken von Lehrkräften für sonderpädagogische Förderung [Adaptive Teaching for Students with Emotional and Behavioral Disorders. Target Dimensions, Teaching Principles, and Reception and Utilization Logics by Special Education Teachers]. *Vierteljahresschrift für Heilpädagogik und ihre Nachbargebiete* [Quarterly Journal for Special Education and Related Fields]*, 92*. https://doi.org/10.2378/vhn2023.art31d

Charamut, N. R., Racz, S. J., Wang, Mo, & De Los Reyes, A. (2022). Integrating multi-informant reports of youth mental health: A construct validation test of Kraemer and Colleagues' (2003) Satellite Model. *Frontiers in Psychology*, *13*, 911629. https://doi.org/10.3389/fpsyg.2022.911629

Connors, E. H., Lyon, A. R., Garcia, K., Sichel, C. E., Hoover, S., Weist, M. D, & Tebes, J. K. (2022). Implementation strategies to promote measurement-based care in schools: Evidence from mental health experts across the USA. *Implementation Science Communications*, *3*(1), 67. https://doi.org/10.1186/s43058-022-00319-w

Connors, E. H., Arora, P. G., Curtis, L., & Stephan, S. H. (2015). Evidence-Based Assessment in School Mental Health. *Cognitive and Behavioral Practice,* *22*, 60–73.

Cook, C. R., Lyon, A. R., Kubergovic, D., Browning Wright, D., & Zhang, Y. (2015). A Supportive Beliefs Intervention to Facilitate the Implementation of Evidence-Based Practices Within a Multi-Tiered System of Supports. *School Mental Health*, *7*(1), 49–60. https://doi.org/10.1007/s12310-014-9139-3

Cook, B. G., & Odom, S. L. (2013). Evidence-Based Practices and Implementation Science in Special Education. *Exceptional Children*, *79*(2), 135–144. https://doi.org/10.1177/001440291307900201

Costello, E. J. (2016). Early Detection and Prevention of Mental Health Problems: Developmental Epidemiology and Systems of Support. *Journal of Clinical Child and Adolescent Psychology 53*, *45*(6), 710–717. https://doi.org/10.1080/15374416.2016.1236728

Dadaczynski, K., Okan, O., Bock, F. de, & Koch-Gromus, U. (2022). Schulische Gesundheitsförderung und Prävention in Deutschland. Aktuelle Themen, Umsetzung und Herausforderungen. *Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz*, *65*(7-8), 737–740. https://doi.org/10.1007/s00103-022-03558-3

Deighton, J., Humphrey, N., Belsky, J., Boehnke, J., Vostanis, P., & Patalay, P. (2018). Longitudinal pathways between mental health difficulties and academic performance during middle childhood and early adolescence. *The British Journal of Developmental Psychology*, *36*(1), 110–126. https://doi.org/10.1111/bjdp.12218

De Los Reyes, A., Cook, C. R., Gresham, F. M., Makol, B. A., & Wang, M. (2019a). Informant discrepancies in assessments of psychosocial functioning in school-based services and research: Review and directions for future research. *Journal of school psychology*, *74*, 74–89.

De Los Reyes, A., Ohannessian, C.M., & Racz, S.J. (2019b). Discrepancies between adolescent and parent reports about family relationships. *Child Development Perspectives*, *13*(1), 53–58. https://doi.org/10.1111/cdep.12306

De Los Reyes, A., Drabick, D. A., Makol, B. A., & Jakubovic, R. J. (2020). Introduction to the special section: The Research Domain Criteria's units of analysis and cross-unit correspondence in youth mental health research. *Journal of Clinical Child & Adolescent Psychology*, *49*(3), 279–296.

De Los Reyes, A., Cook, C. R., Sullivan, M., Morrell, N., Hamlin, C., Wang, M., Gresham, F. M., Makol, B. M., Keeley, L. M., & Qasmieh, N. (2022). The Work and Social Adjustment Scale for Youth: Psychometric properties of the teacher version and evidence of contextual variability in psychosocial impairments. *Psychological Assessment*, *34*(8), 777–790. https://doi.org/10.1037/pas0001139

De Los Reyes, A., & Epkins, C. C. (2023). Introduction to the special issue. A dozen years of demonstrating that informant discrepancies are more than measurement error: Toward guidelines for integrating data from multi-informant assessments of youth mental health. *Journal of Clinical Child and Adolescent Psychology*, *52*(1), 1–18. https://doi.org/10.1080/15374416.2022.2158843

De Los Reyes, A. Epkins, C. C., Asmundson, G. J. G., Augenstein, T. M., Becker, K. D., Becker, S. P., Bonadio, F. T., Borelli, J. L., Boyd, R. C., Bradshaw, C. P., Burns, G. L., Casale, G., Causadias, J. M., Cha, C. B., Chorpita, B. F., Cohen, J. R., Comer, J. S., Crowell, S. E., Dirks, M. A., . . . Youngstrom, E. A. (2023). Editorial Statement About JCCAP's 2023 Special Issue on Informant Discrepancies in Youth Mental Health Assessments: Observations, Guidelines, and Future Directions Grounded in 60 Years of Research. *Journal of Clinical Child and Adolescent Psychology 53*, *52*(1), 147–158. https://doi.org/10.1080/15374416.2022.2158842

De Los Reyes, A., Talbott, E., Power, T. J., Michel, J. J., Cook, C. R., Racz, S. J., & Fitzpatrick, O. (2022). The Needs-to-Goals Gap: How informant discrepancies in youth mental health assessments impact service delivery. *Clinical Psychology Review*, *92*, 102114. https://doi.org/10.1016/j.cpr.2021.102114

De Los Reyes, A., Wang, M., Lerner, M. D., Makol, B. A., Fitzpatrick, O. M., & Weisz, J. R. (2023). The Operations Triad Model and Youth Mental Health Assessments: Catalyzing a Paradigm Shift in Measurement Validation. *Journal of Clinical Child and Adolescent Psychology 53*, *52*(1), 19–54. https://doi.org/10.1080/15374416.2022.2111684

Deros, D. E., Racz, S. J., Lipton, M. F., Augenstein, T. M., Karp, J. N., Keeley, L. M., Qasmieh, N., Grewe, B., Aldao, A., & De Los Reyes, A. (2018). Multi-informant assessments of adolescent social anxiety: Adding clarity by leveraging reports from unfamiliar peerconfederates. *Behavior Therapy, 49*(1), 84–98. https://doi.org/10.1016/j.beth.2017.05.001

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405–432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Dyson, A. (2011). Full service and extended schools, disadvantage, and social justice. *Cambridge Journal of Education*, *41*(2), 177–193. https://doi.org/10.1080/0305764X.2011.572864

Eklund, K., & Dowdy, E. (2014). Screening for Behavioral and Emotional Risk Versus Traditional School Identification Methods. *School Mental Health*, *6*(1), 40–49. https://doi.org/10.1007/s12310-013-9109-1

Eklund, K., Renshaw, T. L., Dowdy, E., Jimerson, S. R., Hart, S. R., Jones, C. N., & Earhart, J. (2009). Early Identification of Behavioral and Emotional Problems in Youth: Universal Screening versus Teacher-Referral Identification. *The California School Psychologist*, *14*(1), 89–95. https://doi.org/10.1007/BF03340954

Ekornes, S. (2017). Teacher Stress Related to Student Mental Health Promotion: The Match Between Perceived Demands and Competence to Help Students with Mental Health Problems. *Scandinavian Journal of Educational Research*, *61*(3), 333–353. https://doi.org/10.1080/00313831.2016.1147068

Erskine, H. E., Moffitt, T. E., Copeland, W. E., Costello, E. J., Ferrari, A. J., Patton, G., Degenhardt, L., Vos, T., Whiteford, H. A., & Scott, J. G. (2015). A heavy burden on young minds: The global burden of mental and substance use disorders in children and youth. *Psychological Medicine*, *45*(7), 1551–1563. https://doi.org/10.1017/S0033291714002888

Essex, M. J., Kraemer, H. C., Slattery, M. J., Burk, L. R., Boyce, W. T., Woodward, H. R., & Kupfer, D. J. (2009). Screening for childhood mental health problems: Outcomes and early identification. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *50*(5), 562–570. https://doi.org/10.1111/j.1469-7610.2008.02015.x

Evans, S. W., Randy Koch, J., Brady, C., Meszaros, P., & Sadler, J. (2013). Community and school mental health professionals' knowledge and use of evidence based substance use prevention programs. *Administration and Policy in Mental Health*, *40*(4), 319–330. https://doi.org/10.1007/s10488-012-0422-z

Farmer, E. M. Z., Burns, B. J., Phillips, S. D., Angold, A., & Costello, E. J. (2003). Pathways into and through mental health services for children and adolescents. *Psychiatric Services (Washington, D.C.)*, *54*(1), 60–66. https://doi.org/10.1176/appi.ps.54.1.60

Forness, S. R., Freeman, S. F. N., Paparella, T., Kauffman, J. M., & Walker, H. M. (2012). Special Education Implications of Point and Cumulative Prevalence for Children With Emotional or Behavioral Disorders. *Journal of Emotional and Behavioral Disorders*, *20*(1), 4–18. https://doi.org/10.1177/1063426611401624

Franklin, C. G. S., Kim, J. S., Ryan, T. N., Kelly, M. S., & Montgomery, K. L. (2012). Teacher involvement in school mental health interventions: A systematic review. *Children and Youth Services Review, 34*, 973–982. https://doi.org/10.1016/j.childyouth.2012.01.027

Glover, T. A., & Albers, C. A. (2007). Considerations for evaluating universal screening assessments. *Journal of School Psychology*, *45*(2), 117–135. https://doi.org/10.1016/j.jsp.2006.05.005

Goldberg, J. M., Sklad, M., Elfrink, T. R., Schreurs, K. M. G., Bohlmeijer, E. T., & Clarke, A. M. (2018). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: A meta-analysis. *European Journal of Psychology of Education*, *34*(4), 755–782. https://doi.org/10.1007/s10212-018-0406-9

Grosche, M., & Casale, G. (2021). Response-to-Intervention (RTI) und schulische Inklusion - Grundlegender Widerspruch oder zwei Seiten einer Medaille? [Response-to-Intervention (RTI) and school inclusion - Fundamental contradiction or two sides of the same coin?] In C. Mähler & M. Hasselhorn (Eds.), *Inklusion. Chancen und Herausforderungen* [Inclusion. Opportunities and Challenges] (pp. 169–183). Hogrefe.

Hanisch, C., Vögele, U., Leidig, T., Döpfner, M., Niemeier, É., & Hennemann, T. (2023). Psychische Auffälligkeiten von Kindern und Jugendlichen an Förderschulen mit dem Förderschwerpunkt Emotionale und soziale Entwicklung. [Mental health problems of children and adolescents at special schools for emotional and behavioral disorders] *Empirische Sonderpädagogik [Empirical Special Education]*, *15*(1), 21–37. https://doi.org/10.25656/01:27182

Heatly, M. C., Nichols-Hadeed, C., Stiles, A. A., & Alpert-Gillis, L. (2023). Implementation of a school mental health learning collaborative model to support cross-sector collaboration. *School Mental Health: A Multidisciplinary Research and Practice Journal*, *15*, 384–401. https://doi.org/10.1007/s12310-023-09578-x

Honey, A., Emerson, E., & Llewellyn, G. (2011). The mental health of young people with disabilities: Impact of social conditions. *Social Psychiatry and Psychiatric Epidemiology*, *46*(1), 1–10. https://doi.org/10.1007/s00127-009-0161-y

Jorm, A. F. (2012). Mental health literacy: Empowering the community to take action for better mental health. *The American Psychologist*, *67*(3), 231–243. https://doi.org/10.1037/a0025957

Kamphaus, R., Reynolds, C., & Dever, B. (2014). Behavioral and mental health screening. In Kettler, R., Glover, A., Albers, C., Feeny-Kettler, K. (Eds.), *Universal screening in educational settings: Evidence-based decision making for schools* (pp. 249–273). American Psychological Association. https://doi.org/10.1037/14316-010

Karg, S., Rathmann, K., & Dadaczynski, K. (2021). Psychische Gesundheit von Kindern und Jugendlichen mit und ohne Behinderung und krankheitsbedingter Einschränkung. Ergebnisse der repäsentativen Kinder- und Jugendgesundheitsstudie (KiGGS Welle 2) [Mental Health of Children and Adolescents with and without Disabilities and Health-related Impairment: Results of the Representative German Child and Adolescent Health Survey (KiGGS Wave 2)]. *Gesundheitswesen (Bundesverband Der Ärzte Des Öffentlichen Gesundheitsdienstes (Germany))*, *83*(7), 490–497. https://doi.org/10.1055/a-1335-4659

Kotov, R., Krueger, R. F., Watson, D., Achenbach, T. M., Althoff, R. R., Bagby, R. M., Brown, T. A., Carpenter, W. T., Caspi, A., Clark, L. A., Eaton, N. R., Forbes, M. K., Forbush, K. T., Goldberg, D., Hasin, D., Hyman, S. E., Ivanova, M. Y., Lynam, D. R., Markon, K., . . . Zimmerman, M. (2017). The Hierarchical Taxonomy of Psychopathology (HiTOP): A dimensional alternative to traditional nosologies. *Journal of Abnormal Psychology*, *126*(4), 454–477. https://doi.org/10.1037/abn0000258

Kraemer, H. C., Measelle, J. R., Ablow, J. C., Essex, M. J., Boyce, W. T., & Kupfer, D. J. (2003). A new approach to integrating data from multiple informants in psychiatric assessment and research: Mixing and matching contexts and perspectives. *The American Journal of Psychiatry*, *160*(9), 1566–1577. https://doi.org/10.1176/appi.ajp.160.9.1566

Krull, J., Wilbert, J., & Hennemann, T. (2018). Does social exclusion by classmates lead to behaviour problems and learning difficulties or vice versa? A cross-lagged panel analysis. *European Journal of Special Needs Education*, *33*(2), 235–253. https://doi.org/10.1080/08856257.2018.1424780

Kutcher, S., & Wei, Y. (2020). School mental health: A necessary component of youth mental health policy and plans. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA)*, *19*(2), 174–175. https://doi.org/10.1002/wps.20732

Lawson, H. (2004). The logic of collaboration in education and the human services. *Journal of Interprofessional Care*, *18*(3), 225–237. https://doi.org/10.1080/13561820410001731278

Le, L. K. D., Esturas, A. C., Mihalopoulos, C., Chiotelis, O., Bucholc, J., Chatterton, M. L. et al. (2021). Cost-effectiveness evidence of mental health prevention and promotion interventions: A systematic review of economic evaluations. PLoS Medicine, *18*(5), e1003606. https://doi.org/10.1371/journal.pmed.1003606

Lyon, A. R., Ludwig, K., Wasse, J. K., Bergstrom, A., Hendrix, E., & McCauley, E. (2016). Determinants and functions of standardized assessment use among school mental health clinicians: A mixed methods evaluation. *Administration and Policy in Mental Health and Mental Health Services Research*, *43*(1), 122–134. https://doi.org/10.1007/s10488-015-0626-0

Makol, B. A., Youngstrom, E. A., Racz, S. J., Qasmieh, N., Glenn, L. E., & De Los Reyes, A. (2020). Integrating Multiple Informants' Reports: How Conceptual and Measurement Models May Address Long-Standing Problems in Clinical Decision-Making. *Clinical Psychological Science 8*(6), 953–970. https://doi.org/10.1177/2167702620924439

Marsh, R. J., & Mathur, S. R. (2020). Mental Health in Schools: An Overview of Multitiered Systems of Support. *Intervention in School and Clinic*, *56*(2), 67–73. https://doi.org/10.1177/1053451220914896

Marsh, R. J. (2016). Identifying students with mental health issues: A guide for classroom teachers. Intervention in School and Clinic, *51*(5), 318–322. https://doi.org/10.1177/1053451215606706

McLeod, J. D., Uemura, R., & Rohrman, S. (2012). Adolescent mental health, behavior problems, and academic achievement. *Journal of Health and Social Behavior*, *53*(4), 482–497. https://doi.org/10.1177/0022146512462888

McLeod, B. D., Jensen-Doss, A., Lyon, A. R., Douglas, S., & Beidas, R. S. (2022). To utility and beyond! Specifying and advancing the utility of measurement-based care for youth. *Journal of Clinical Child and Adolescent Psychology*, *51*(4), 375–388. https://doi.org/10.1080/15374416.2022.2042698

Merikangas, K. R., He, J.P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Georgiades, K., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. Adolescents: Results from the National Comorbidity Survey Replication--Adolescent Supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*(10), 980–989. https://doi.org/10.1016/j.jaac.2010.05.017

Myklebust, J., & Myklebust, V. (2017). Mental health among former students with special educational needs who are now in their mid-30s. *British Journal of Special Education*, *44*(2), 126–143. https://doi.org/10.1111/1467-8578.12163

Oberle, E., & Schonert-Reichl, K. A. (2017). Social and Emotional Learning: Recent Research and Practical Strategies for Promoting Children's Social and Emotional Competence in Schools. In J. L. Matson (Ed.), *Autism and Child Psychopathology Series. Handbook of Social Behavior and Skills in Children* (pp. 175–197). Springer. https://doi.org/10.1007/978-3-319-64592-6_11

O'Farrell, P., Wilson, C., & Shiel, G. (2022). Teachers' perceptions of the barriers to assessment of mental health in schools with implications for educational policy: A systematic review. *British Journal of Educational Psychology*, *93*(1), 262–282. https://doi.org/10.1111/bjep.12553

Papandrea, K., & Winefield, H. (2011). It's not just the squeaky wheels that need the oil: Examining teachers' views on the disparity between referral rates for students with internalizing versus externalizing problems. *School Mental Health, 3*(4), 222–235. https://doi.org/10.1007/s12310-011-9063-8

Parikh, A., Fristad, M. A., Axelson, D., & Krishna, R. (2020). Evidence Base for Measurement-Based Care in Child and Adolescent Psychiatry. *Child and Adolescent Psychiatric Clinics of North America*, *29*(4), 587–599. https://doi.org/10.1016/j.chc.2020.06.001

Reinke, W. M., Herman, K. C., Thompson, A., Copeland, C., McCall, C. S., Holmes, S., & Owens, S. A. (2021). Investigating the Longitudinal Association Between Fidelity to a Large-Scale Comprehensive School Mental Health Prevention and Intervention Model and Student Outcomes. *School Psychology Review*, *50*(1), 17–29. https://doi.org/10.1080/2372966X.2020.1870869

Rossetto, A., Jorm, A. F., & Reavley, N. J. (2016). Predictors of adults' helping intentions and behaviours towards a person with a mental illness: A six-month follow-up study. *Psychiatry Research*, *240*, 170–176. https://doi.org/10.1016/j.psychres.2016.04.037

Scott, K., & Lewis, C. C. (2015). Using Measurement-Based Care to Enhance Any Treatment. *Cognitive and Behavioral Practice*, *22*(1), 49–59. https://doi.org/10.1016/j.cbpra.2014.01.010

Seigel, W. M., Golden, N. H., Gough, J. W., Lashley, M. S., & Sacker, I. M. (1990). Depression, self-esteem, and life events in adolescents with chronic diseases. *Journal of Adolescent Health Care: Official Publication of the Society for Adolescent Medicine*, *11*(6), 501–504. https://doi.org/10.1016/0197-0070(90)90110-N

Skrzypiec, G., Askell-Williams, H., Slee, P., & Rudzinski, A. (2016). Students with Self-identified Special Educational Needs and Disabilities (si-SEND): Flourishing or Languishing! *International Journal of Disability, Development and Education*, *63*(1), 7–26. https://doi.org/10.1080/1034912X.2015.1111301

Sörberg Wallin, A., Koupil, I., Gustafsson, J.E., Zammit, S., Allebeck, P., & Falkstedt, D. (2019). Academic performance, externalizing disorders and depression: 26,000 adolescents followed into adulthood. *Social Psychiatry and Psychiatric Epidemiology*, *54*(8), 977–986. https://doi.org/10.1007/s00127-019-01668-z

Splett, J. W., & Maras, M. A. (2011). Closing the gap in school mental health: A community-centered model for school psychology. *Psychology in the Schools*, *48*(4), 385–399. https://doi.org/10.1002/pits.20561

Stormont, M., Herman, K. C., & Reinke, W. M. (2015). The overlooked children: How teachers can support children with internalizing behaviors. *Beyond Behavior*, *24*(2), 39–45.

Stormont, M., Reinke, W., & Herman, K. (2011). Teachers' knowledge of evidence-based interventions and available school resources for children with emotional and behavioral problems. *Journal of Behavioral Education, 20*, 138–147. doi:10.1007/s10864-011-9122-0.Return to ref 2011 in article

Suldo, S. M., & Shaffer, E. J. (2008). Looking Beyond Psychopathology: The Dual-Factor Model of Mental Health in Youth. *School Psychology Review*, *37*(1), 52–68. https://doi.org/10.1080/02796015.2008.12087908

Talbott, E., De Los Reyes, A., Kearns, D. M., Mancilla-Martinez, J., & Wang, M. (2023). Evidence-Based Assessment in Special Education Research: Advancing the Use of Evidence in Assessment Tools and Empirical Processes. *Exceptional Children*, 001440292311710. https://doi.org/10.1177/00144029231171092

United Nations. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. https://unesdoc.unesco.org/ark:/48223/pf0000098427

United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. https://www.ohchr.org/en/hrbodies/crpd/pages/conventionrightspersonswithdisabilities.aspx

Vostanis, P., Humphrey, N., Fitzgerald, N., Deighton, J., & Wolpert, M. (2012). How do schools promote emotional well-being among their pupils? Findings from a national scoping survey of mental health provision in English schools. *Child & Adolescent Mental Health*, *18*(3), 151–157. https://doi.org/10.1111/j.1475-3588.2012.00677.x

Weare, K., & Markham, W. (2005). What do we know about promoting mental health through schools? *Promotion & Education*, *12*(3–4), 118–122. https://doi.org/10.1177/10253823050120030104

Weist, M. D., Rubin, M., Moore, E., Adelsheim, S., & Wrobel, G. (2007). Mental health screening in schools. *The Journal of School Health*, *77*(2), 53–58. https://doi.org/10.1111/j.1746-1561.2007.00167.x

Weist, M. D., Youngstrom, E. A., Stephan, S., Lever, N., Fowler, J., Taylor, L., McDaniel, H., Chappelle, L., Paggeot, S., & Hoagwood, K. (2014). Challenges and ideas from a research program on high-quality, evidence-based practice in school mental health. *Journal of Clinical Child and Adolescent Psychology: The Official Journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53*, *43*(2), 244–255. https://doi.org/10.1080/15374416.2013.833097

Wright, C. V., Goodheart, C., Bard, D., Bobbitt, B. L., Butt, Z., Lysell, K., McKay, D., & Stephens, K. (2020). Promoting measurement-based care and quality measure development: The APA mental and behavioral health registry initiative. *Psychological Services, 17*(3), 262–270. https://doi.org/10.1037/ser0000347

Yamaguchi, S., Foo, J. C., Nishida, A., Ogawa, S., Togo, F., & Sasaki, T. (2020). Mental health literacy programs for school teachers: A systematic review and narrative synthesis. *Early Intervention in Psychiatry*, *14*(1), 14–25. https://doi.org/10.1111/eip.12793

Autorinnen- und Autorenhinweis

Gino Casale
https:// orcid.org/0000-0003-2780-241X

Andres De Los Reyes
https://orcid.org/0000-0003-0214-983X

Korrespondenzadresse:
Gino Casale
Gaußstraße 20, D-42119 Wuppertal
gcasale@uni-wuppertal.de

Offene Daten	keine Originaldaten verwendet, daher NA
Offener Code	keine Originaldaten verwendet, daher NA
Offene Materialien	theoretischer Beitrag, daher NA
Präregistrierung	Nein
Votum Ethikkommission	theoretischer Beitrag, daher NA
Finanzielle und weitere sachliche Unterstützung	keine finanzielle oder sachliche Unterstützung
Autorenschaft	GC & ADLR haben das Manuskript geschrieben. GC & ADLR haben das Konzept gemeinsam ausgearbeitet.