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EVALUATION OF A REMOTE IMPLEMENTATION OF THE WELL-BEING PROMOTION PROGRAM WITH MIDDLE SCHOOL STUDENTS DURING COVID-19

A Dissertation Presented

by

EMILY C. BARRY

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

February 2022

College of Education

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EMILY C. BARRY

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DEDICATION

This dissertation is dedicated in memory of Dr. Maureen Lynch. During my short 100hour undergraduate internship in the Schenectady City Schools, Dr. Lynch taught me the importance of building on student and family strengths, encouraged me to be a lifelong learner, helped me believe in my potential to make a difference in the world, and, ultimately, inspired me to be the school psychologist I am today.

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ABSTRACT

EVALUATION OF A REMOTE IMPLEMENTATION OF THE WELL-BEING PROMOTION PROGRAM WITH MIDDLE SCHOOL STUDENTS DURING COVID-

19

FEBRUARY 2022

EMILY BARRY, B.S., UNION COLLEGE M.Ed., UNIVERSITY OF MASSACHUSETTS AMHERST Ph.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Sarah A. Fefer

The COVID-19 pandemic and pivot to emergency remote teaching changed the way in which many students access school-based mental health interventions. Furthermore, the effects of the pandemic heightened distress and decreased life satisfaction amongst many youth, increasing the need for schools to provide targeted mental health supports (Lazarus et al, 2021; Magson et al., 2021). Empirically supported Tier 2 mental health interventions exist (i.e., the Well-Being Promotion Program; Suldo, 2016), but little is known about how these interventions can be adapted and feasibly implemented in remote school contexts. This retrospective case study evaluated the implementation of a remote version of the Well-Being Promotion Program, a targeted positive psychology intervention, with eighth grade students during the COVID-19 pandemic. The study aimed to (1) to describe the co-design process through which a research-practice partnership modified the WBPP for remote delivery and (2) to explore the implementation strategies that influenced the feasibility of implementing the resulting digital version of the WBPP. The study used qualitative data (e.g., meeting notes,

interviews and written feedback from providers, students, and caregivers) and quantitative data (e.g., pre-/post-measures, intervention integrity, attendance) to evaluate the co-design process and the feasibility of the adapted WBPP. Through co-design, the intervention was modified to be facilitated via videoconference, to use digital versions of WBPP materials, to use email to share with caregivers the handouts and a recorded version of the information session, to add additional sessions for data collection, and to adapt language to align with school vernacular. Using reflexive thematic analysis (Braun & Clarke, 2006; Braun et al., 2019), themes were constructed from the data to provide insight into the implementation strategies used by the research-practice partnership to influence feasibility. Findings suggest that (a) maintaining the structure of the WBPP, (b) using technology for remote implementation, (c) collaborating through the researchpractice partnership, and (d) recognizing the effectiveness of intervention efforts influenced the feasibility of the remote implementation. Lessons learned from this case study suggest that research-practice partnerships can be critical for influencing the feasibility of intervention implementation in local school contexts, especially during novel situations such as the COVID-19 pandemic.

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CHAPTER 1

STATEMENT OF THE PROBLEM

At times, it appears as if researchers and practitioners speak two different languages – translation is often needed. Translation from research to practice can be stunted by missteps, miscommunications, and mismatches. These differences between what researchers know should work in practice and what can work in real world settings lead to a phenomenon commonly called the "research-to-practice gap" (Chorpita & Daleiden, 2014). Researchers develop, implement, and evaluate interventions using rigorous research designs to demonstrate that these interventions can be effective to solve the problems at hand. Millions of dollars are poured into funding large-scale research studies to ensure that the practices and interventions are effective (i.e., evidence-based) and ready to deploy into practical settings. Yet, when these rigorously researched interventions are implemented in real world settings, favorable outcomes are far from guaranteed. How these practices are implemented matter for success perhaps more than the evidence-based practice itself (Durlak & Dupre, 2008).

Evidence-Based Practices and the Implementation Gap

Evidence-based practices (EBPs) "refer to a body of scientific knowledge about service practices... or about the impact of clinical treatments or services on mental health problems of children or adolescents" (Hoagwood et al., 2001, p. 1179). Despite an indepth knowledge of what works and recommendations of EBPs from educational and psychological professional organizations (e.g., American Psychological Association, 2021), school practitioners adopt and use EBPs in practice at alarming low rates (Ennett et al., 2003; Sanetti & Collier-Meek, 2019). Further, when EBPs are adopted in schools, these practices often fail to instill long-lasting changes for students due to implementation barriers such as lack of contextual fit and competing demands (Forman et al., 2013). Schools are complex ecosystems, which present challenges for developing interventions that will be successful across a large range of settings. Thus, Sanetti and Collier-Meek (2019) propose that there exists an *implementation gap* between EBPs that researchers have shown to promote positive outcomes and how schools actually adopt and implement these practices. Implementation refers to "what a program looks like 'on the ground' when it is being conducted as opposed to what a program looks like in theory or on the drawing board" (Durlak, 2015, p. 1124). This implementation gap has a critical influence on the success of intervention implementation which holds potential to positively influence the lives of students in schools.

While this implementation gap is rampant across research-to-practice translation into schools, it is not unique to education (Sanetti & Collier-Meek, 2019). The multidisciplinary field of implementation science was developed to facilitate the translation of what researchers know works into real world settings. According to Eccles and Mittman (2006), implementation science is defined as "the methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of... services" (p. 1). Especially in the past decade, implementation science has greatly informed school psychologists' understanding of how systems-level, classroom-level, and individual-level interventions for academics, behavior, and social-emotional skills can be effectively and efficiently rolled out, implemented, and sustained within the unique contexts of schools. As evidenced by a 2019 special issue of the *Journal of School Psychology* dedicated to implementation science in school psychology, recently more attention has been paid to how interventions are carried out in real life settings and the need for researchers and practitioners to work together to bridge these gaps.

There is a growing consensus in the field of school psychology related to the importance of studying and understanding the process of implementation. Sanetti and Collier-Meek (2019) noted that school psychologists have increasingly recognized treatment integrity as a key ingredient to intervention success. Treatment integrity, also referred to as "treatment fidelity" and" "intervention integrity," is the extent to which interventionists carry out intervention procedures as intended and as designed by intervention developers (Sanetti & Kratochwill, 2014). It is a multidimensional construct that addresses one or more of the ways in which the intervention may have been implemented as intended: (a) what intervention steps were conducted (content), (b) how well the steps were delivered (quality), (c) how much of the intervention was implemented (quantity), and (d) how the intervention was conducted (process; Sanetti & Kratochwill, 2009). School psychology training programs are required to provide coursework and supervised experiences in consultation, which is a "precursor ... to fidelity promotion" (Sanetti & Collier-Meek, 2019, p. 76). The NASP Practice Model outlines that school psychologists should "understand... methods to promote effective implementation of services" (NASP, 2020, para. 3). Backed by their professional organization, school psychologists are more equipped than ever to provide needed support for the implementation of EBPs, yet this implementation gap still exists.

One reason the implementation gap persists, despite school psychologists' training and professional obligation to promote effective implementation, lies with how

evidence-based practices are developed and researched. The Institute for Education Sciences (IES), the largest funder of educational research associated with the U.S. Department of Education, adheres to a developmental model of research that funds projects across five phases: Exploration, Development and Innovation, Efficacy and Replication, Effectiveness, and Measurement. Of these phases, only the Exploration and Development and Innovation phases involve iterative processes that prioritize the knowledge and experiences of the end users of the intervention (IES, 2021). The research studies receiving most of the funding focus solely on efficacy and effectiveness, thus assuming an outcomes-oriented approach. While IES requires efficacy and effectiveness studies to rely on real world implementers to participate in the implementation and document the implementation process, these studies often assume a narrow approach to evaluating implementation (i.e., evaluating only treatment integrity and acceptability). Not as much attention is paid to the numerous processes that influence how these practices will transport to less controlled practice settings, thus putting these interventions at risk of low uptake in schools.

Traditionally, the transportability of EBPs into applied settings was thought to be the sole responsibility of the practitioner (Kratochwill & Shernoff, 2004). School psychologists were expected to determine the appropriateness of an EBP for their setting, implement an intervention within the constraints of their role and context, and independently determine effectiveness and student outcomes. This large responsibility led to an avoidance of EBP implementation in practice and an overreliance on clinical judgment, which has high face validity (Kratochwill & Shernoff, 2004). Nevertheless, these practices often result in sub-optimal outcomes for students (Saavedra et al., 2019).

Proctor et al. (2011) purported that interventions result in sub-optimal outcomes for one of two reasons: (1) the intervention was not effective in the new setting which resulted in *intervention* failure, or (2) the intervention had high value in the new setting but was not implemented well enough to produce optimal effects resulting in *implementation* failure.

To combat ineffective practices and failure to produce positive effects, Kratochwill and Shernoff (2004) asserted that transportability must be prioritized as a shared responsibility between researchers, trainers, and practitioners, rather than laying on the shoulders of those in the field. They suggest that professionals should engage in a collaborative partnership across different specializations to identify the conditions under which the intervention is most likely to be effective and how to establish those conditions. Kratochwill (2002) dubbed this strategy "EBI reciprocal influence process" to highlight the critical role of practitioners in the research process to enhance the likelihood that EBPs will be effective in applied settings (p. 527). Part of this reciprocal influence process involves researchers and practitioners working together to evaluate the feasibility and effectiveness of EBPs within applied practice settings.

Feasibility Research as Means to Close the Research-to-Practice Gap

In response to the well-documented implementation gap, school psychology researchers are increasingly being challenged to address questions related to the feasibility of implementing and evaluating interventions prior to or in conjunction with effectiveness studies (Gadke et al., 2021). Questions about implementation can be addressed through feasibility studies, which seek to determine "whether it is possible to do something," (Gadke et al., 2021, p. 1) and answer the question "can this study be done" (National Institute for Health Research, 2012). While feasibility studies are

commonplace in medical research, where they originated, feasibility research is rarely completed or reported in education and psychology (Gadke et al., 2021). Feasibility research focuses on the intervention process rather than treatment effectiveness with the goal of maximizing real-world implementation of EBPs from the outset (Gadke et al., 2021). This type of research holds great potential to address the research-to-practice gap that is prevalent in psychology and education.

School psychology intervention research often alludes to the feasibility of intervention implementation, yet few feasibility studies are published in the field (Gadke et al., 2021). Feasibility language is often used as a misnomer for pilot studies, which have distinct definitions and purposes. Pilot studies, sometimes published in the school psychology literature under the guise of feasibility, are small-scale versions of larger studies that include all aspects of the larger study, focus on the effectiveness of the intervention, and are outcomes oriented (Gadke et al., 2021). In contrast, feasibility studies explicitly target intervention implementation and are process oriented (Gadke et al., 2021). The goal of feasibility studies is not to determine whether the intervention works, but rather to gather information about whether the intervention is possible and could potentially work within the target setting. Feasibility studies also provide researchers with the chance to adjust research designs to maximize opportunities to capture treatment effectiveness in future pilot and efficacy trials. Without this work, interventions may fall vulnerable to delivery problems such as low integrity, acceptability, and compliance; issues related to recruitment and retention; the possibility of measuring unimportant constructs; and smaller than expected effect sizes (Gadke et al., 2021). Though understudied, under-resourced, and without formal guidelines for

conducting research, feasibility studies can serve as an initial step in the process of producing high-quality research that more seamlessly translates into practice, leading to better outcomes for practitioners, students, and systems alike.

Dimensions of Feasibility

Recently, Gadke and colleagues (2021) make a strong argument for the inclusion of feasibility studies in school psychology intervention research agendas. Researchers from various service-oriented disciplines (e.g., public health, occupational therapy, and school psychology) have been thinking and publishing about feasibility for several decades. While feasibility researchers maintain the same goal of addressing the question "can it work," there are nuances in how prominent researchers define feasibility. Feasibility is commonly conceptualized as consisting of several dimensions, yet how these dimensions are delineated varies. For example, Bowen (2009) identified eight "areas of focus" to be addressed by feasibility studies: (a) acceptability, (b) demand, (c) implementation, (d) practicality, (e) adaptation, (f) integration, (g) expansion, and (h) limited-efficacy testing. Another model of feasibility dimensions by Tickle-Degnen (2013) included four assessment focuses: (a) process, (b) resources, (c) management, and (d) scientific. Focused on behavioral interventions, Orsmond and Cohn (2015) labeled the five major objectives of feasibility research as: (a) assessment of recruitment capability and resulting sample characteristics, (b) data collection procedures and outcome measures, (c) acceptability of the intervention and study procedures, and (d) resources and ability to manage and implement the study and intervention, and (e) preliminary evaluation of participant responses to the intervention. Gadke et al. (2021) synthesized these three frameworks along with others that share conceptual underpinnings (e.g.,

Eldridge et al., 2016; Kazdin, 2018) to outline ten dimensions of feasibility that school psychologists could apply to intervention research within the fields of education and psychology.

The framework outlined by Gadke et al. (2021) includes 10 dimensions of feasibility, which are discussed in-depth in the next sections. Research questions related to these dimensions can be assessed through a variety of measurement procedures, including qualitative measures such as interviews and feedback from key stakeholders and quantitative measures such as rating scales, outcome measures, and checklists (Gadke et al., 2021). Researchers are empowered to prioritize which of the ten dimensions best address their research aims and are not required to include all dimensions. The authors note that four dimensions (recruitment capability, data collection procedures, design procedures, and implementation) are essential to answer questions related to the possibility of future intervention outcomes research that could take place following the feasibility studies. Definitions and key details about the ten dimensions of feasibility will be described in the following sections to illustrate lenses through which intervention processes can be evaluated to answer the question "can it work?"

<u>Recruitment Capability</u>

Recruitment capability captures the extent to which researchers successfully recruited participants for the study. The ability to recruit participants from the target population is paramount for study success as well as for the ability to provide the intervention for the population who may be most likely to benefit.

Data Collection Procedures

Data collection procedures refer to the appropriateness of the procedures for which outcomes are measured and the outcome measures themselves. Issues related to data collection may include which measures are selected, who will serve as informants and data collectors, the clarity of the procedures, and the logistics of the data collection process.

Design Procedures

Design procedures consider the overall research design and the establishment of clear research questions. To enhance feasibility, the design and questions would benefit from being based on a logic model and guided by established guidelines or protocols for research designs (e.g., Polanin et al., 2021).

Social Validity

Social validity refers to the social significance or relevance of intervention goals, the importance of intervention outcomes, and the acceptability of intervention procedures (Carter & Wheeler, 2019). Acceptability refers to how appropriate, fair, reasonable, and potentially effective stakeholders perceive the intervention to be (Kazdin, 1981; Sterling-Turner & Watson, 2002). It is often considered the "gatekeeper" for intervention implementation as the success of an intervention has been shown to be in part contingent upon stakeholders' perceptions of how acceptable the intervention is (e.g., Sterling-Turner & Watson, 2002). Importantly, acceptability is perhaps one of the most frequently documented dimensions of feasibility, yet there is little agreement about how acceptability should be assessed within research designs (Gadke et al., 2021). Carter (2008) proposed a distributive model for examining treatment acceptability that balance perceptive of various stakeholders, including participants, implementers, and community in which the intervention was implemented. Furthermore, for the purpose of feasibility research, interviews and focus groups are preferred over traditional ratings scales to glean a deeper understanding of facilitators and barriers to implementation that would inform future research (Ayala & Elder, 2011).

Practicality

Practicality encompasses consideration of various environmental and contextual constraints. These constraints may include both resources such as materials, time, and space as well as management considerations such as research team member experience, implementer expertise, and practitioner commitment (Tickle-Degnen, 2013). Intervention scale, training resources, and cost can also fall within the practicality dimension (Gadke et al., 2021).

Integration into Existing Systems

Each intervention setting is unique; thus, this dimension seeks to capture how well an intervention can be integrated into the existing service delivery approach of the setting. The integration dimension considers intervention-setting fit, which is key for high levels of implementation and sustained adoption of EBPs (Harn et al., 2013). Schools are complex systems with numerous moving parts, players, and goals. Therefore, researchers must consider the extent to which an intervention fits within existing structures of the setting as well as its culture. Structural integration assesses whether the new program fits into the organization structure, physical environment, and/or existing service delivery within the applied settings (Durlak & Dupre, 2008). Cultural integration considers the fit between the culture of the school, classroom, and teacher with the philosophy underlying the intervention. Incongruence between the theories on which intervention is based and practitioners' or systems' values and beliefs will impede intervention success, which may result low levels of implementation (e.g., Donnell & Gettinger, 2015). Gadke et al. (2021) assert that researchers must evaluate to what extent an intervention's theories, practices, and delivery features align with a school's structure and culture in order to maximize the potential for adoption, implementation, and sustainability.

Adaptability

In contrast to integration and practicality which reference implementation within an existing system, adaptability refers to the extent to which an intervention can be modified to meet the needs of various situations (e.g., different population, alternative delivery format). This dimension captures how easily interventions can be adapted to fit the uniqueness of individual school settings. Example of adaptations include using alternative technologies, making adaptions to enhance developmental appropriateness, and adding elements to the intervention to increase access such as transportation.

Implementation

Attention to treatment integrity, referred to as implementation in this framework, has increased in recent years within school-based research (Sanetti & Collier-Meek, 2019). The implementation dimension is multi-faceted, focused not only on the level of integrity but also on the conditions under which the intervention is most likely to produce optimal outcomes (Gadke et al., 2021). Historically, treatment integrity has been equated with adherence, or the percentage of intervention components implemented as outlined by the developers (Moncher & Prinz, 1991). More recently, researchers have adopted a broader view of implementation to encompass additional structural components such as exposure (i.e., dosage, frequency, session length) as well as process components such as

quality of delivery (e.g., interpersonal strengths, enthusiasm, skill and knowledge of the interventionist) and participant responsiveness (e.g., engagement and enjoyment of intervention recipients; Gadke et al., 2021). Implementation may be best measured through a multi-method, multi-source approach that includes measurement approaches such as interviews, rating scales, and written feedback across stakeholder groups (e.g., teachers, students, caregivers) to allow for data triangulation and provide a deep understanding of implementation (Ruiz-Primo, 2006).

Effectiveness

Although on the surface the effectiveness dimension appears to align with pilot or outcome studies more closely, determining effectiveness is also a key objective within feasibility research. This dimension is defined as the extent to which the intervention "shows promising evidence of the positive outcomes with the population for which it is intended" (Gadke et al., 2021, p. 9). In feasibility studies, researchers can take advantage of evaluating considerations such as if the dependent variable is sensitive to change, data collection methods related to intervention outcomes, and trial variations of intervention agents such as dosage, reactivity, and methods of checking integrity. While conclusive evidence of effectiveness cannot be drawn from feasibility studies, preliminary indications of potential effectiveness provide invaluable information necessary to answer key questions about feasibility.

Generalizability

The final dimension of feasibility outlined by Gadke and colleagues (2021) is generalizability, or the extent to which the intervention can continue to produce positive outcomes when implemented in an educational or real world setting rather than a highly

controlled research environment. Generalizability also considers how treatment effects maintain over time. This dimension is critical for scaling up interventions to be broadened post-evaluation.

The ten feasibility dimensions proposed by Gadke et al. (2021) combine into a valuable framework through which researchers and practitioners can make decisions regarding the potential for the intervention to be successfully implemented in the applied setting. Nevertheless, merely evaluating feasibility without taking intentional steps to enhance the transportability of interventions from research to practice is not enough. Researchers and practitioners must work together to ensure that evidence-based practices are effective in both controlled and applied settings.

Researcher-School Collaboration as a Strategy to Enhance Intervention Feasibility

One widely recommended strategy for enhancing intervention feasibility, particularly the implementation dimension, is collaboration throughout the implementation process between researchers and school partners (Durlak & Dupre, 2008; Ghate, 2016). Like implementation research and feasibility studies, healthcare research paved the way for attention to collaboration as a strategy to enhance intervention-setting fit and more recently, psychology and education are following suit. When researchers and practitioners work together during the initial stages of intervention research (i.e., feasibility studies), professionals can work together to identify gaps between the intervention and the applied settings, make adaptations to the intervention, and evaluate outcomes of shared value. Durlak and Dupre (2008) asserted that shared decision-making between researchers, practitioners, and the community has consistently led to better intervention implementation. This decision-making works best when characterized by

mutual trust, non-hierarchical relationships, and shared responsibility for completing tasks (Durlak & Dupre, 2008).

Recent research related to researcher-provider collaboration in applied social science highlights the emerging value of collaboration from intervention development through independent implementation in real world settings. Previously, implementation frameworks emphasized the importance of intervention-setting fit but stopped short of detailing how intervention developers and end-users can work together to achieve this goal (Bearman et al., 2020). With more recent acknowledgement of the importance of implementation for student outcomes, intervention frameworks increasingly outline researcher-practitioner collaborations. These collaborations can take many forms and numerous terms are used in the literature to describe the various topographies of researcher-practitioner partnerships in school-based intervention research, including codesign (e.g., Bearman et al., 2020), user-centered design (e.g., Lyon & Koerner, 2016), person-centered approach (e.g., Yardley et al., 2015), and using expert opinion (e.g., Lyon et al., 2014). Most of the collaborations described in the research were formed for the purpose of intervention development, although principles and lessons learned can be extrapolated to be applied throughout the implementation process.

One model of collaboration that has been used to enhance the intervention-setting fit of school-based mental health interventions is co-design. Co-design, also referred to as co-creation, is an approach that actively utilizes the expertise of researchers and end users (i.e., implementers and/or recipients) across intervention development and implementation to maximize feasibility (Voorberg et al., 2015). In co-design for schoolbased interventions, researchers make recommendations about the active ingredients of

the intervention, and school-based providers provide contextual information about the school environment and culture to enhance intervention-setting fit. Examples of recommendations school-based providers may make include examples of intervention activities that are relevant to the student population (e.g., local activities that may be scheduled as part of a positive event scheduling intervention), structural elements of the intervention (e.g., length, frequency, duration), and delivery format (e.g., in-person, virtual; Bearman et al., 2020). Co-design often involves activities such as developing shared goals across stakeholders, ensuring "equitable knowledge exchange" (Bearman et al., 2020, p. 1691), and jointly developing versions of the intervention (i.e., prototypes) that conform to the environmental constraints of the target setting. These co-design strategies can increase the appropriateness of the intervention for the target context, improving stakeholder acceptability of the intervention, and, in turn, enhancing the feasibility for the intended setting (Proctor et al., 2011).

Importance of Feasibility for Multi-Tiered Systems of Support (MTSS)

Within school settings, interventions to enhance students' academic, behavioral, and social-emotional success are most effectively and efficiently implemented within a multi-tiered systems of support (MTSS) framework (Lewis et al., 2010). MTSS is entrenched in the belief that all students can and will learn the academic, socialemotional, and behavior skills needed to be a contributing member of society (Darling-Hammond, 2006). Based on public health models, MTSS is a multi-tiered framework through which educators use data to inform decisions about how students are responding to instruction and intervention such that interventions are explicitly matched to present student need to prevent future difficulties. Due to the wide variety of student needs,

contextual factors, professional expertise and experience, leadership characteristics, and other factors across schools and communities, engaging in a continuous improvement process to individualize the MTSS to match present contextual factors is essential for its success.

To enhance the contextual fit and feasibility of the MTSS framework, schools should consider how each essential element of an MTSS will be designed and implemented in their settings. Universal screening proactively identifies students who would benefit from support beyond core instruction, so that interventions can be efficiently delivered based on the identified needs (Dowdy et al., 2015). Core instruction and evidence-based interventions that increase in intensity are arranged into a multi-level prevention system (National Center on RTI, 2010). At the universal level (i.e., Tier 1), all students receive research-based curriculum and instruction. At the targeted level (i.e., Tier 2), some students who have been identified as needing targeted support in one or more areas received standardized, evidence-based interventions, often delivered in a small-group format. At the intensive level (i.e., Tier 3), few students with persistent learning needs receive individualized and intensive support to prevent the learning needs from worsening. Within MTSS, problem solving teams collaboratively use data to make instructional decisions to match interventions to student needs and to ensure that students are making adequate progress toward their learning goals (Brown-Chidsey & Bickford, 2015). MTSS holds the potential to use universal screening, data-based decision making, and evidence-based interventions to promote academic, behavioral, and social-emotional student success, but only when it is feasible to implement MTSS effectively, efficiently, and acceptably.

Enhancing the Intervention-Setting Fit of Tier 2 Mental Health Interventions

Relative to interventions at the universal (Tier 1) and intensive (Tier 3) levels, less attention has been paid to targeted interventions (Tier 2), particularly for interventions that support student mental health (Anderson & Borgmeier, 2010). The purpose of Tier 2 interventions is to provide explicit skill-based instruction to meet the needs of students who display early signs of challenge that could not be addressed through universal instruction at Tier 1. Key features of Tier 2 interventions include (a) explicit teaching of target behaviors, (b) increased opportunities for practice in the natural setting, and (c) frequent opportunities for feedback (Anderson & Borgmeier, 2010). Unlike the attention paid to students who require intensive, individualized support due to persistent challenges, students who would benefit from targeted support traditionally "slipped through the cracks." This is also reflected by the dearth of literature on Tier 2 interventions. Tier 2 interventions are less likely than Tiers 1 or 3 to be implemented with fidelity for several reasons. Firstly, school-based professionals are less likely to have knowledge and awareness of Tier 2 interventions (Williams et al., 2018). Secondly, a lack of fidelity to EBPs can lead to lower implementation of Tier 2 interventions and limit student progress (Eiraldi et al., 2019). Thirdly, schools may be more uncertain about how to staff, fund, and organize Tier 2 programs than Tiers 1 and 3 programming, which can lead to avoidance and/or improper implementation (Behrens et al., 2013). Given the unique challenges associated with implementing Tier 2 programs that are critical for preventing long-term student difficulties, steps to enhance the feasibility of Tier 2 interventions are critical and should be a focus of researcher and practitioner efforts.

Bearman and colleagues (2020) described a recent research-school partnership that utilized co-design to enhance the feasibility of an existing Tier 2 coping skills program, Act & Adapt (Bearman et al., 2009), within an urban middle school. Six schoolbased mental health providers and 22 sixth grade students from two schools participated in the study. The co-design process took place over the course of a series of meetings between members of the research team and providers from the school setting. During these meetings, the collaborators discussed shared goals, examined and evaluated the existing intervention, suggested modifications to enhance fit with the school settings, and reviewed the revised versions of the intervention. Following universal screening to identify students who may benefit from the intervention, the school-based mental health providers implemented the adapted Act & Adapt intervention. Post-intervention, the providers participated in focus groups to give insight into the experience and resulting feasibility of the program. Results indicated that the co-design adaptions made to Act & Adapt included changes to session length and content, reorganization of leader manual, added flexibility and fewer required components, addition of student screening, and changes to the length of training for providers. Themes from the focus groups revealed challenges with co-design process, including competing work demands and scheduling and logistics, as well as facilitators of the co-design process, including opportunities for professional development and increased capacity to provide essential mental health services. Overall, providers, students, and caregivers indicated that they were satisfied with the adapted intervention. Establishing a research-school partnership to adapt an existing Tier 2 intervention through a co-design process appears to enhance interventionsetting fit, thus increasing feasibility of implementation and participant satisfaction and

outcomes. Despite increasing calls in the fields of psychology and education for researcher-school collaborations to enhance the feasibility of school-based intervention, the adaption of Act & Adapt is one of the few published examples of co-design in a school setting.

Effects of the Shift to Emergency Remote Learning during COVID-19

The onset of the COVID-19 pandemic in March 2020 prompted an emergency shift of the entirety of the school environment to a remote learning setting, requiring educators to make quick adaptations to their instructional practices in a novel context. With the change to remote instruction, environments in which all school structures, systems, interventions, relationships, and communications among other things took place were suddenly uprooted. Teachers were unprepared for the emergency shift to remote instruction, with most teachers never having taught remotely previously (Marshall et al., 2020). In a 2020 survey of teachers who provided emergency remote instruction, teachers cited lack of accountability and difficulty with meaningful communication and feedback as primary difficulties (Marshall et al., 2020). Furthermore, schools drastically differed in their approaches to schooling during the pandemic and many schools switched between different methods over time (e.g., blended learning, full remote, in-person; Coker et al., 2020). Teachers experienced an increase in workload, having to navigate the complexity of teaching online, engaging students in new ways, and preparing lessons in a new way (Kaden, 2020). These novel challenges presented within the school context during COVID-19 required changes to be made to the way evidence-based interventions are implemented in school settings to meet the high needs of students.
Concurrent with the dramatic shifts in educational environments, COVID-19 greatly impacted the mental health of students around the world and created a sense of collective trauma (Duane et al., 2020). Safety measures put in place to protect physical safety (e.g., masks, physical distancing, stay at home orders) greatly decreased individuals' ability to connect socially with others (De France et al., 2021). Learning from home left millions of adolescents without direct contact with their valued social group and increased feelings of loneliness (Loades et al., 2020). Loneliness has been linked to mental health problems in children and adolescents, and research suggests that the length of the period of loneliness appears to be a predictor of future mental health problems, particularly depression, up to nine years later (Loades et al., 2020). De France et al. (2021) found that significant increases in anxiety and depression scores for a community sample of adolescents during Wave 4 of a four-wave study (only Wave 4 was collected during the pandemic). A study of 13-19-year-old students revealed that 30% of surveyed adolescents reported feeling unhappy or depressed more often compared to how they felt prior to the pandemic, and a similar percentage expressed concerns about having their basic needs met (Margoulis et al., 2020). Almost a third of the students reported not feeling connected to adults at their school, their classmates, or their school community, highlighting feelings of isolation experienced by the impacted populations. Others reported experiences included sleep loss due to excessive worry, feeling constantly stressed, and a loss of self-confidence (Margoulis et al., 2020). While research investigating the effects of the pandemic on adolescents' mental health is still emerging, preliminary data suggest that the effects have been detrimental for many. There was an immense need for school-based Tier 2 mental health interventions to be delivered in the

remote learning environment to teach students' skills to cope with difficulties and enhance well-being during the pandemic.

<u>The Well-Being Promotion Program: A Promising Tier 2 Positive Psychology</u> <u>Intervention</u>

The Well-Being Promotion Program (WBPP; Suldo, 2016) is a promising Tier 2, mental health intervention based on the principles of positive psychology. Positive psychology is grounded in the idea that complete mental health is not merely the absence of symptoms of distress, but also the presence of positive indicators of well-being (Keyes, 2005). Thus, "complete mental health" is defined by few symptoms of mental illness and indicators of subjective well-being (SWB), or happiness (Suldo & Schaffer, 2008). SWB is comprised of individuals' satisfaction with life as well as the balance of positive and negative emotions (Diener et al., 2009). One's SWB is influenced by their genetics, life circumstances, and positive activities (Lyubomirksy et al., 2005). Research shows that students with high SWB have better academic, social, physical, and behavioral outcomes than those with lower SWB (Antaramian et al., 2010; Moore et al., 2019; Suldo et al., 2016).

The WBPP is a 10-session, multi-component intervention targeting early adolescents that teaches eight positive activities that have been shown to increase students' SWB. The program and associated activities are divided into three phases focused on cultivating positive emotions about the past (e.g., pride), present (e.g., joy), and future (e.g., hope). WBPP also aims to increase engagement through identifying and using signature strengths. Theory suggests that engaging in positive activities will facilitate students increasing their internal psychological building blocks (e.g., gratitude,

hope, and optimism) and improving engagement through their use of character strengths. In turn, these strengthened psychological resources lead to increased SWB, and accompanying improvements in academic outcomes and reductions in symptoms of psychopathology. A visualization of the theory of change is presented in Figure 1.

Previous studies of the WBPP provide support for the social validity and promise of WBPP to increase early adolescents' SWB immediately after the intervention and across time (Suldo et al., 2014; Roth et al., 2017). Suldo et al. (2014) reported statistically significant increases in life satisfaction for sixth grade students who participated in WBPP compared to a wait-list control group. Roth et al. (2017) found statistically significant gains for seventh grade students who participated in WBPP across all indicators of SWB (i.e., life satisfaction, positive affect and negative affect). While neither study found statistically significant effects on students' symptoms of psychopathology, Roth et al. (2017) detected practically meaningful changes (i.e., small effect size) for internalizing and externalizing behaviors, suggesting that WBPP may have some influence on distress. Students in both studies reported WBPP to have high social validity, indicating that WBPP was interesting and enjoyable, and that they appeared to benefit from the social setting and content of the intervention. These preliminary findings suggest that the WBPP is a promising Tier 2 intervention to enhance middle school students' SWB, strengthen their relationships with others, and in turn, may improve their school outcomes.

Present Study: Collaborating to Adapt WBPP for the Remote Learning

<u>Environment</u>

The unprecedented nature of the COVID-19 pandemic and shift to emergency remote learning heightened the need for the implementation of targeted mental health interventions. Given that many existing mental health interventions (including the WBPP) were designed to be delivered in-person, the pandemic stimulated the need for researchers and school-based practitioners to collaborate to adapt existing interventions for emergency remote delivery. Like Bearman et al., (2020), the current study used a research-practice partnership and co-design principles to adapt an existing mental health intervention to the remote school context with the goal of enhancing feasibility and acceptability. The current study extends what is known about the feasibility of co-design for school-based mental health interventions to the adaption of an existing positive psychology intervention (WBPP) for emergency remote implementation with middle school students during COVID-19.

Mirroring Bearman et al. (2020), the purpose of the current study was twofold: (1) to describe the co-design process, and (2) to assess the feasibility of implementing the digital version of the WBPP in the remote learning environment during COVID-19. The study used a case study research approach, including qualitative data (e.g., interviews and written feedback from providers, students, and caregivers) and quantitative data (e.g., pre-/post-measures, adherence data), to evaluate the co-design process and the feasibility of the adapted WBPP. The present study will address study purposes through the following research questions.

Research Question 1

How did school-based mental health professionals and university-based researchers engage in a co-design process to adapt an existing targeted positive

psychology intervention (i.e., the WBPP) to be implemented in the remote learning environment of the partner schools with eighth grade students during COVID-19?

Hypothesis 1

It was hypothesized that school mental health professionals would provide recommendations for adaptions to the presentation of intervention materials, delivery method, and intervention structure (i.e., length, frequency, duration), and universitybased researchers would provide recommendations related to intervention content and delivery.

Research Question 2

How was the collaboratively adapted version of the WBPP implemented within the remote learning environment of the partner school during the COVID-19 pandemic? **Hypothesis 2**

It was hypothesized that the collaboratively adapted version of the WBPP would be implemented using implementation strategies that enhanced the feasibility of the intervention within the remote learning environment as evidenced by the retention of students and interventionists in the program (i.e., recruitment capacity); stakeholders' reports of acceptability and satisfaction (i.e., social validity); utilization of existing school resources (i.e., practicality); integration into the school's existing service delivery and structures (i.e., integration into existing systems); flexibility in intervention materials, procedures, and delivery (i.e., adaptability); documentation of intervention integrity (i.e., implementation); and reports of student benefit (i.e., effectiveness).

Figures

Figure 1



CHAPTER 2: LITERATURE REVIEW

Middle school is a transitional time in youth development and schooling. Adolescents experience rapid biological, cognitive, and social changes marking adolescence as a stressful period (Choudhury et al., 2008). Students transitioning from elementary school to middle school are met with drastic differences in the school environment as classrooms shift to being more teacher-directed with greater task demands. Students also have more unstructured time, more teacher interactions that may lead to reduced student-teacher closeness, and fewer opportunities for student decision making (Eccles et al., 1993; Ellerbrock & Kiefer, 2013). Academic motivation tends to decline during adolescence, and the accompanying decline in achievement has been linked to an increased likelihood of internalizing symptoms during young adulthood (Eccles et al., 1993; Obradovic et al., 2009). The timing of these increased academic stressors in conjunction with significant biological, cognitive, and social changes have implications for early adolescents' mental health. Rapid development of cognitive abilities can lead to increased difficulties with emotion regulation (Shoshani & Sloan, 2013). Social stressors become prominent in adolescents' lives as they spend most of their time with their peer groups, show a greater interest in peer relationships, and are more susceptible to peer influence (DeLay et al., 2016). When considering major developmental and environmental changes that occur during adolescence, it is not surprising that adolescents experience an increased rate of psychiatric disorders compared to children (Costello et al., 2011).

According to epidemiological studies, 22.2% of adolescents in the United States suffer from clinically significant mental illness, most commonly anxiety (31.9%) and

depression (14.3%; Merikangas et al., 2010). Unfortunately, many adolescents would benefit from mental health support yet do not receive needed treatment. Often, the distress experienced by these youth does not meet diagnostic criteria for a mental illness (i.e., they experience "sub-clinical" symptoms), and therefore these youth do not receive formal mental health support (Lazarus et al., 2021). In fact, it is estimated that 7.5 million youth experience mental health needs for which they are not treated (Kataoka et al., 2002). Specifically, mental health treatment does not reach about half of adolescents who experience symptoms of distress that significantly impact their functioning (Merikangas et al., 2011). Furthermore, racially minoritized youth (i.e., Hispanic/Latino and Black/African American youth) are less likely to receive needed mental health services than their White counterparts (Kataoka et al., 2002). Survey data demonstrate that adolescents reported increasing feelings of distress across the past decade, and with the current COVID-19 pandemic exacerbating these feelings, our nation's mental health crisis among youth will continue until "major changes are made in the delivery of [mental health] services" (Lazarus et al., 2021, p. 16).

This chapter outlines the theoretical and empirical rationale for the current case study that evaluated the emergency adaption and remote implementation of a positive psychology intervention, the Well-Being Promotion Program, in a middle school during the COVID-19 pandemic. Because the current study is situated within a larger study that investigated the efficacy of the WBPP, this chapter includes a review of the positive psychology literature related to the WBPP as well as of the intervention implementation literature that informs implementation strategies and processes. First, this chapter presents an overview of positive psychology, including a brief history of the field and

conceptualizations of complete mental health as consisting of both positive and negative indicators (i.e., subjective well-being and psychopathology). Next, there is a discussion of the connection between positive indicators of mental health for adolescents and correlates with student success (e.g., protective factors, engagement, behavior, and academic outcomes). Then, attention is turned to the mechanisms underlying and empirical support for increasing subjective well-being through positive psychology interventions, and studies of school-based single and multi-component interventions (e.g., the WBPP) are described. Following the review of positive psychology interventions, the COVID-19 pandemic is established as a circumstance that greatly influenced adolescents' well-being as well as instructional practices in schools. Finally, considering the pandemic context and need to quickly adapt the WBPP to the remote environment, there is a discussion of an implementation framework (i.e., Consolidated Framework for Implementation Research) and strategies to enhance the feasibility (e.g., intervention-setting fit) of mental health interventions within school contexts. Case study research regarding adaptations of mental health interventionists to enhance intervention-setting fit and feasibility are discussed. The goal of this literature review is to highlight the reasoning behind the partner school's motivation to implement the WBPP during the pandemic (i.e., to increase well-being during a challenging time thus enhancing student outcomes), which required collaborative partnership and use of implementation strategies to feasibly implement the WBPP in the remote learning environment.

Introducing Positive Psychology

Addressing youth mental health challenges is a priority for school-based mental health providers, yet these challenges are too often addressed via a deficit-orientation

rather than a strength-building one. Traditionally, the field of school psychology has maintained a focus on fixing problems rather than embracing a strengths-based approach (Gilman & Huebner, 2003). School psychologists have been charged with the evaluation and treatment of mental health problems of youth in school settings. While today the NASP Practice model highlights the expectation that school psychologists practice across multiple domains, including consultation and collaboration, interventions to develop academic skills and social-emotional competences, and family-school collaborative services to name a few, many school psychologists remain in a gatekeeper role closely linked to assessing and intervening with students who receive special education services (Merrell et al., 2012; NASP, 2020). Nevertheless, there is a growing movement within school psychology to complement current deficit-oriented practices with strengths-based practices grounded in positive psychology (Froh et al., 2011). Positive and school psychology appear to be closely aligned in their goals. The goal of positive psychology is optimal human functioning (Seligman & Csikszentmihalyi, 2000). According to NASP, the vision of school psychology is for all youth to, "access the learning, behavior, and mental health support needed to thrive in school, at home, and throughout life." Despite this alignment, school psychology continues to lag in consistently using strengths-based approaches in their assessment and intervention practices to support student mental health. Positive psychology may be the long overdue "major change" in mental health assessment and service delivery that would promote optimal student functioning (Lazarus et al., 2021, p. 16).

History and Establishment of Positive Psychology

Positive psychology formally came into public consciousness around the turn of the millennium when Martin Seligman introduced the concept in his 1998 Presidential Address to the American Psychological Association (APA). In his address, Seligman called for a "reoriented science" that shifted focus away from the traditional deficitoriented disease model toward a strengths-focused discipline in order to help all people lead more fulfilling lives. The new reoriented field formalized with the creation of the Positive Psychology Steering Committee, on which sat Mihaly Csikszentmihalyi, Ed Diener, Kathleen Hall Jamieson, Chris Peterson, and George Vaillant, who would all become prolific in the field (Linley, 2006). This committee became the Positive Psychology Network, which later became the Positive Psychology Center at the University of Pennsylvania, led by Martin Seligman. At the turn of the millennium, positive psychology established itself as a psychological discipline when APA published a special issue of the *American Psychologist* dedicated exclusively to positive psychology.

Serving as guest editors for the special issue titled "Happiness, Excellence, and Optimal Human Functioning", Seligman and Csikszentmihalyi (2000) published their seminal introductory article outlining the "new" science of positive psychology and their hopes for the discipline moving forward. The authors recognized that while psychologists have a deep understanding of illness and life's challenges, less is known about what makes life worth living. They suggested that psychologists must focus attention on individuals' valued subjective experiences (e.g., well-being, hope, and happiness) and their positive individual traits (e.g., courage, talent, wisdom) as well as group-level civic virtues (e.g., altruism, responsibility, and work ethic). Seligman and Csikszentmihalyi

also called for a change in case conceptualization and treatment stating, "treatment is not just fixing what is broken; it is nurturing what is best" (Seligman & Csikszentmihalyi, 2000, p. 7). They sought to persuade researchers to investigate human strengths and virtues, practitioners to provide treatment that targets enhancing client strengths rather than addressing deficits, and institutions, such as schools, to develop climates that foster strengths of their members. Seligman and Csikszentmihalyi's article, along with the special issue, formally introduced positive psychology to the research and clinical communities.

While the special issue was the first formal publication on positive psychology, its roots may be traced back prior to the 1990s as Linley and colleagues (2006) suggested the roots of positive psychology can be traced back through the history of psychology. William James referenced "healthy mindedness", humanistic psychology emphasized the fully functioning person, and Maslow studied self-actualization as a path to psychological health. These historical sub-disciplines may not have directly informed positive psychology, but they share values of goals of supporting individuals to live their best lives (Linley, 2006). Earlier research and theory contain useful lessons that inform research within positive psychology today, which has grown exponentially since the publication of the special issues in the *American Psychologist*.

Positive psychology researchers strive to use the same rigorous scientific methods prevalent within traditional psychology and thus have established their presence in the peer-reviewed literature. The field established its own interdisciplinary, peer-reviewed journal in 2006, the *Journal of Positive Psychology*, "devoted to basic research and professional application on states of optimal human functioning and fulfillment, and the

facilitation and promotion of well-being" (Journal of Positive Psychology, 2021). Positive psychology researchers have published empirical studies and non-empirical articles at increasing rates across disciplines, populations, research methods, and topics (Donaldson et al., 2015). In a systematic review of 1336 peer reviewed articles published between 1999 and 2013, Donaldson and colleagues (2015) found that more than 750 empirical studies of positive psychology theories, principles, and interventions were published, and the rate of publication continues to increase over time. Most of the articles targeted the construct of well-being (25%), used quantitative research methods (78%), and studied college or graduate student populations (39%). Furthermore, most of the authors resided in the United States (55.2%), and 77% of the published articles originated from English-speaking Western countries. While 46 countries in total were represented in the sample, the bulk of the positive psychology literature derives from Eurocentric perspectives. Rooted in historical traditions aimed to promote human flourishing, positive psychology has established itself as an empirical presence in the literature and accompaniment to traditional psychology.

Conceptualizations of Mental Health

Unlike in traditional clinical psychology that targets the assessment and intervention for mental illness, positive psychology conceptualizes a person's complete mental health as the presence of mental health and the absence of mental illness. In this dual continuum or dual-factor model, mental health (well-being) and mental illness (psychopathology) are two separate but correlated dimensions (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008).

Flourishing vs. Languishing

Keyes (2005) defined mental health as the presence of emotional, psychological, and social well-being and the absence of mental illness (e.g., major depressive disorder, generalized anxiety disorder). He operationalized this dichotomy as a continuum, reaching from languishing (absence of mental health) to flourishing (presence of emotional, psychological, and social well-being without mental illness). Flourishing adolescents experience fewer depressive symptoms and conduct problems and better psychosocial functioning (e.g., closeness to others and school integration) compared with adolescents who are moderately mentally healthy or languishing (Keyes, 2006).

Subjective Well-Being

In well-being research, the positive indicator of mental health is most conceptualized as subjective well-being. Though the field of positive psychology has gained most of its attention in the last 20 years, Ed Diener first published about SWB in 1984, much before the study of happiness solidified as an independent field (Diener & Emmons, 1984). Today, more than 170,000 articles mentioning SWB have been published since 1999 (Diener et al., 2018). Research and application of SWB has occurred across a myriad of disciplines including economics, sociology, philosophy, health sciences and kinesiology. SWB, particularly the life satisfaction component of the construct, is the dominant indicator of well-being in research on youth happiness (Suldo, 2016).

More specific than the colloquial word "happiness", SWB is the scientific umbrella term for the multiple constructs it encompasses, namely life satisfaction, positive affect and negative affect (Diener, 1984). SWB encompasses people's broad judgments and their specific feelings that reflect reactions to events and life

circumstances. The "subjective" descriptor in the terms specifies that SWB includes judgments and evaluations from the person's own perspective, a descriptor that separate SWB from other well-being constructs in the literature (e.g., psychological well-being; Diener et al., 2018). When individuals have high SWB, they judge themselves to be satisfied with their life overall (global life satisfaction) and/or with specific areas of their lives (e.g., themselves, school, or family; domain-specific life satisfaction; Diener et al., 2009). They also experience positive feelings (e.g., joy excitement; positive affect) more frequently than negative feelings (e.g., anger, sadness; negative affect; Diener et al., 1999; Diener et al., 2009). Therefore, people might assess their SWB based on the frequency and/or intensity of their positive and negative emotional experience (Diener et al., 2010). High SWB is associated with positive life outcomes for individuals around the world (e.g., Datu & King, 2018; Kim et al., 2017; Rose et al., 2017), and more specifically, youth with high SWB demonstrate superior functioning across domains, including enhanced academic, social, identity, and physical health outcomes (Lazarus et al., 2021).

PERMA

Seligman (2011) sought to de-emphasize SWB's focus on life satisfaction through a broadening shift to well-being theory. PERMA is an acronym for the five measurable elements that Seligman proposed as making up well-being: positive emotions, engagement, relationships, meaning, and accomplishment. Positive emotion encompasses feelings of happiness and life satisfaction, in line with SWB. Engagement relates to the concept of flow, a mental state experienced by people who are immersed in activities that use their strengths and talents (Csikszentmihalyi, 2014). Relationships involve feeling

socially integrated, feelings satisfied with one's social relationships, and feeling cared about and supported by others. Meaning encapsulates a feeling of belongingness, that one's life had value, and believing in something bigger than oneself. Accomplishment is the pursuit of achieving goals, feeling capable of doing daily activities, and having a sense of achievement. Seligman (2011) proposed that these five pillars independently and collectively contribute to one's well-being. Kern et al. (2015) found support for PERMA's multidimensional approach to defining well-being with a sample of adolescent male students. Factor analysis revealed factors related to positive emotions, engagement, relationships, and accomplishment. PERMA presents one of the broadest views of wellbeing conceptualization.

Dual Factor Model

While Keyes, Diener, and Seligman present divergent ideas of what constitutes mental health, the three conceptualizations are united in that the absence of psychopathology is correlated with the presence of mental health. To study complete mental health with youth in schools, subjective well-being and psychopathology are most commonly studied as the positive and negative indicators of mental health due to their historical roots and robust empirical literature base, particularly for life satisfaction (Suldo, 2016). Complete mental health and its implications for student success have been studied with elementary school (e.g., Greenspoon & Saklofske, 2001), middle school (e.g., Suldo & Schaffer, 2008), high school (e.g., Suldo et al., 2016), and college (e.g., Eklund et al., 2011) students. These studies overwhelmingly demonstrate that students with high SWB experience fewer symptoms of psychopathology, and conversely, students who experience elevated psychopathology have diminished SWB. Thus,

research suggests that experiences of well-being and mental distress are not mutually exclusive and should be considered together (Suldo & Schaffer, 2008; Suldo et al., 2016).

Suldo and Schaffer's (2008) study evaluated the dual-factor model with middle school students and found differences in outcomes aligned with the degree to which students experienced well-being and psychopathology. In their sample of 329 middle school students, 57% of the sample fell into the "complete mental health" category, characterized by low to average scores on a self-report measure of internalizing symptoms, teacher-report measure of externalizing symptoms and reported satisfactory levels of SWB. SWB was determined by standardizing and summing the scores for LS as measured by the Students' Life Satisfaction Scale (SLSS; Huebner, 1991) and PA as measured by the PANAS for Children (PANAS-C; Laurent et al., 1999), then subtracting the standardized PANAS-C NA scores. Vulnerable youth, which consisted of 13% of the student sample, presented with low SWB, yet low psychopathology scores. Symptomatic yet content youth, also 13% of the sample, indicated high psychopathology symptoms, yet also high SWB. Interestingly, youth in this category did not appear to be as negatively affected by their internalizing and/or externalizing symptoms, perhaps due to a higher frequency of positive emotions and more positive evaluation of their life. Finally, troubled youth presented with high psychopathology and low SWB, and represented 17% of the sample. When examining student outcomes between identified groups, Suldo and Schaffer found that youth with complete mental health were more academically successful than their vulnerable peers, symptomatic yet content youth perceive their relationships with peers and support from adults significantly more positively than troubled youth, and youth with higher SWB present with better physical health outcomes

than youth lower in SWB. Taken together, this evidence suggests that while lower psychopathology leads to better outcomes, the presence of higher SWB for students leads to more favorable academic, social and health outcomes beyond the absence of psychopathology symptoms. By working with students to enhance their SWB (i.e., through positive psychology interventions), schools have the potential to improve student outcomes by promoting well-being.

Importance of Subjective Well-Being to Student Outcomes

Research shows that students with high SWB (i.e., complete mental health, symptomatic yet content) have better academic, social, physical, and behavioral outcomes than those with lower SWB (i.e., troubled, vulnerable; Gyrch et al., 2020; Suldo et al., 2011; Suldo & Huebner, 2004). Nonetheless, adolescents tend to experience a normative decline in SWB during the developmental period when positive mental health is of the utmost importance. The following section will first describe this normative decline in SWB and then will review empirical literature demonstrating the positive influence of SWB on adolescents' (a) protective factors, (b) engagement, (c) behaviors, and (d) academic outcomes, all commonly investigated correlates with SWB, to highlight the impact of SWB above and beyond the effects of psychopathology.

While research clearly indicates that complete mental health is critical for optimal student functioning, adolescents are at heightened risk for psychiatric disorders and diminished SWB. According to epidemiological studies, as children enter their teenage years, they experience increased rates of depression, panic disorder, agoraphobia, and substance use disorders (Costello et al., 2011). Beginning around the time that symptoms of distress rise, students' life satisfaction shows a decreasing trend across adolescence

(Cavallo et al., 2015; Goldbeck et al., 2007). There appears to be a worldwide "developmental phenomenon" in which youth's SWB starts to decline around age 10 (Casas & Gonzalez-Carrasco, 2019). While the structure of middle school may play a role in diminished happiness in the United States, the trend appears to persist internationally. Therefore, this trend cannot be attributed to the start of middle school because countries utilize various schooling structures. The trend of decreasing life satisfaction is persistent across the middle school years into late adolescence (Gonzalez-Carrasco et al., 2017). This trend may be subject to gender differences because life satisfaction in adolescence appears to be lower for females than for males (Cavallo et al., 2015). Furthermore, recent research suggests that the affective components of SWB also present consistent inverse trends across adolescence with positive affect declining and negative affect increasing (Casas & Gonzalez-Carrasco, 2020). Decreasing trends for SWB across adolescence highlight the critical importance of intentional prevention efforts to support students' well-being (i.e., through Multi-Tiered Systems of Support). In fact, Nes and Roysamb (2017) assert that childhood and early adolescence might be the "optimal time" to promote well-being in youth for sustainable long-term wellness into adulthood (p. 1547).

Facilitating acquisition of protective factors is key to protecting adolescents from the negative developmental effects that tend to emerge during adolescents (e.g., psychopathology). Adolescents higher in SWB are more likely to have critical protective factors, regardless of the presence or absence of symptoms of psychopathology. Grych et al. (2020) measured psychological symptomology, well-being, and numerous protective factors (e.g., emotional regulation, optimism, and social support) for 466 adolescents

(ages 12-17) in the Appalachian region of the United States. Consistent with Suldo and Schaffer (2008), results provided support for the dual factor model with adolescents falling into one of four groups: positive mental health (44%), symptomatic yet content (17%), vulnerable (20%), and troubled (19%). Consistent differences were found between the groups high in SWB (i.e., positive mental health and symptomatic yet content) and those low in SWB (i.e., vulnerable and troubled). Adolescents high in SWB reported similarly high levels of numerous protective factors, including emotional awareness, endurance, generativity, and purpose, compared to adolescents who reported low SWB. Furthermore, the two groups (high versus low SWB) differed in their reports of social support except for the vulnerable group who reported experiencing more family support than the troubled group. Group differences were also present between adolescents who differed in psychopathology (complete mental health and vulnerable versus symptomatic yet content and troubled) in that adolescents with fewer symptoms of psychopathology demonstrated higher emotional regulation and optimism. Across all protective factors, adolescents in the positive mental health group possessed the most protective factors, which would lead to the best outcomes. Furthermore, the presence of well-being indicators has positive implications for adolescents with or without mental illness underscoring the importance of cultivating students' well-being independently from symptom reduction.

The strength of life satisfaction alone, without considering the affective component of SWB, appears to be a key strength toward optimal functioning for adolescents (Gilman & Huebner, 2006). Adolescents in grades 6-12 (N = 490) completed the Students' Life Satisfaction Scale (SLSS; Huebner, 1991) and the Behavior

Assessment System for Children (BASC; Reynolds & Kamphaus, 1992). It should be noted that the students in the sample were predominant White (87%) and of economic advantage (4% reported to have a low socio-economic status). Other data collected included students' grade point average and extracurricular involvement. Participants were divided into three groups based on their reported life satisfaction. The top 20% of SLSS scores comprised the "high life satisfaction" group (n = 98), the 20% with the lowest life satisfaction comprised the "low life satisfaction" group (n = 88), and the middle 50% comprised the "average life satisfaction" group (n = 252). Students in the high life satisfaction group overwhelming indicated significant higher scores on all measures of academic, interpersonal, and intrapersonal functioning than students who reported lower life satisfaction. Adolescents with high life satisfaction reported experiencing more positive relationships with others, higher levels of hope, greater sense of personal control, and less interpersonal distress than those with lower life satisfaction. Related to school outcomes, adolescents with higher life satisfaction reported more positive school experiences, higher grade point averages, and more extracurricular involvement. Conversely, adolescents low in life satisfaction reported more interpersonal and intrapersonal distress and less positive academic experiences than the average or high life satisfaction groups. In sum, adolescents with the highest life satisfaction tend to also experience the best academic, interpersonal, and school outcomes compared to adolescents with less life satisfaction.

There is evidence that SWB has some degree of long-term effects on students' school-related outcomes. Lyons et al. (2013) conducted novel analysis with an archival dataset collected at two timepoints five months apart. Seventh and eighth grade students

(n = 1809 at Time 1; n = 727 at Time 2) completed self-report measures for subjective well-being and student engagement. Students with positive mental health at Time 1 reported the highest grade point averages and engagement across all engagement indicators (behavioral, cognitive, and emotional). Participants' SWB scores predicted all forms of student engagement at Time 2 above and beyond their reported symptoms of psychopathology. Interestingly, SWB did predict students' academic achievement as measured by grade point average. Lyons et al., (2013) provides support for using SWB to provide a comprehensive picture of youth functioning beyond the information provided by psychopathology alone.

It may be that life satisfaction alone influences student engagement, deemphasizing the importance of momentary affective states in affecting engagement. Furthermore, life satisfaction and student engagement appear to have a reciprocal relationship. Lewis et al. (2011) measured life satisfaction and engagement (emotional, behavioral, and cognitive) of seventh and eighth grade students at a large middle school in the Fall 2008 (N = 864) and Spring 2009 (N = 779). Results revealed a bidirectional relationship between life satisfaction and multiple dimensions of engagement. Higher life satisfaction at Time 1 predicted changes in cognitive engagement at Time 2. Students who reported feeling satisfied with their lives at the beginning of the school year were more likely to indicate that school is important for their future, even after controlling for grade point average, socio-economic status, family status, race, and gender. Reciprocally, cognitive engagement at Time 1 predicted change in life satisfaction at Time 2 after controlling for demographic variables and grade point average. When students were more hopeful about their future and found value in their education, they were more satisfied

with their lives later in the school year. Student engagement, particularly cognitive engagement, has important implications for promoting life satisfaction with middle school students.

Conversely, adolescents who are dissatisfied with their lives may negatively influence students, for example by increasing the likelihood of externalizing behaviors (Suldo & Huebner, 2004). Adolescents in grades six through eleven (N = 1045 students) across two high schools and three middle schools completed the Students Life Satisfaction Scale (Huebner, 1991) and the Youth Self-Report Form of the Child Behavior Checklist (YSR; Achenbach & Edelbrock, 1991) at two timepoints one year apart. From Time 1 to Time 2, global life satisfaction remained moderately stable (r =.57). Adolescents' life satisfaction appears to be a relatively stable characteristic yet can also be malleable in response to stressful life circumstances. Furthermore, initial life satisfaction predicted externalizing behaviors at the second timepoints, even when controlling for externalizing behaviors at Time 1. Life satisfaction did not predict internalizing behaviors. This study suggests that adolescents who are dissatisfied with their lives may be more likely to experience future behavior problems. Conversely, high life satisfaction may serve as a protective factor against future externalizing problems, especially when adolescents experience stressful life events.

Subjective well-being and psychopathology for early adolescents predict academic achievement and school attendance across time. As part of an ongoing study (see Suldo & Schaffer, 2008), Suldo et al. (2011) measured SWB, symptoms of psychopathology, school attendance, and academic achievement (i.e., grade point average) in 300 middle school students at two timepoints one year apart. Adolescents

with complete mental health (i.e., high SWB and low psychopathology) had the best school functioning at Time 2, including the highest math skills, grade point averages, and best attendance. Adolescents with complete mental health reported better outcomes than those in the vulnerable group (i.e., low SWB and low psychopathology) highlighting that low psychopathology alone is not enough for optimal school functioning. Regarding longitudinal results, participants' mental health group at Time 1 predicted their grade point averages and attendance one year later. Students with high SWB initially were more likely to gain better grades the following year and have better reading and math skills. Symptoms of psychopathology had a significant influence on school attendance as students with high psychopathology accrued lower attendance at Time 2 regardless of initial metal health category. Overall, students with complete mental health yielded the best academic achievement and school attendance initially and across time. Complete mental health appears to have long-term positive effects for middle school students.

High SWB appears to lead to enhanced academic outcomes, yet life satisfaction alone may be responsible for this relationship (Ng et al., 2015). Seven hundred and twenty-two adolescents from a large urban middle school completed measures assessing their life satisfaction and affect balance (i.e., SWB) at two timepoints five months apart. Results indicated that "life satisfaction and academic achievement may be mutually reinforcing" (Ng et al., 2015, p. 487). Academic achievement appeared to have a positive effect on life satisfaction at Time 2 after controlling for baseline levels of SWB and demographics variables. Life satisfaction also appeared to have a positive effect on later academic achievement, after controlling for the same variables. Positive and negative affect does to appear to play a role in this relationship, suggesting that momentary

emotional experiences do not appear to play a significant role in increasing the life satisfaction and grades of students. Interventions to enhance students' life satisfaction may lead to gains in future academic achievement, and academic interventions may serve to also enhance adolescents' satisfaction with life.

Considering the evidence demonstrating the positive relationship between positive mental health (i.e., SWB) and student success, measuring psychopathology alone is not sufficient to glean a complete picture of students' functioning and risk (Lyons et al., 2013). The provision of mental health support during early adolescence is essential and has long lasting positive effects on student wellness. Mental health services provided to both high- and low-achieving students have led to enhanced life outcomes in adulthood, including long-term productivity and employability (Knitzer, 1999). Because students spend most of their waking hours in school buildings across their development (Roeser et al., 2000), schools are an ideal setting in which to meet the mental health needs of youth (Eccles & Roeser, 2010a). The normative and predictable nature of an increase in psychopathology and decrease in life satisfaction during adolescence highlights the importance of preventative mental health support during middle school, and targeted PPIs have great potential to promote complete mental health for these students (Suldo, 2016).

Enhancing SWB Through Positive Psychology Interventions

Positive psychology interventions (PPIs) are intentional activities that teach individuals ways of thinking, behaving, and striving for personal goals in order to enhance SWB. There exists a wide variety of evidence-based PPIs, and the evidence for the effectiveness of these interventions across populations, settings, and modalities continues to grow (Waters, 2011). Most PPIs include activities aimed to increase positive

emotions (e.g., gratitude, optimism, hope; Lyubomirksy & Layous, 2013), while others target increasing engagement through using signature character strengths (Duckworth et al., 2005). For example, PPIs that target gratitude often involve writing down things for which an individual is grateful and the reason for the gratitude (Emmons & McCullough, 2003), and PPIs that target signature character strengths (e.g., kindness, creativity, humor) often involve intentionally using a strength in a new way (Park & Peterson, 2006). Increasing positive emotions and engagement are also in line with Seligman (2011)'s PERMA model. Unlike interventions that aim to reduce symptoms of psychopathology, PPIs seek to build on a person's strengths to increase their personal resources and to enhance positive indicators of mental health.

While most PPIs were originally developed for adults, many PPIs have been adapted for youth, investigated in school contexts, and have shown promise for increasing students' well-being (Waters, 2011). These PPIs rely on the same underlying mechanisms to increase SWB as those studied in PPIs for adults. This section will first outline the mechanisms that underlie PPIs, providing a conceptual basis for how positive psychology interventions increase individuals' subjective well-being. Then, singlecomponent and multi-component PPIs will be reviewed. Both seminal and school-based studies will be described. This section will conclude with an empirical review of the Well-Being Promotion Program, the intervention adapted and implemented in the current study.

Theoretical Framework Underpinning Positive Psychology Interventions <u>Sustainable Happiness Model</u>

Proposed by Lyubomirksy and colleagues (2005), the Sustainable Happiness Model (SHM), also known as the "happiness pie chart," became an influential framework for how the field of positive psychology conceptualizes what determines happiness. SHM identifies three overlapping influences that work together to make up an individual's chronic happiness: genetic predisposition, current life circumstances, and current intentional activities. In the 2005 article, Lyubomirksy and others estimated the relative importance of each determinant and suggested that 50% could be attributed to genetic predisposition, 10% to current life circumstances, and 40% to intentional activities. SHM suggested that almost half of an individual's chronic happiness is within their control via engagement in positive activities. These conclusions provided justification for the development, study, and use of positive psychology (i.e., intentional) activities, and were readily accepted into the narrative of the field.

Despite its widespread reference and use throughout the field, questions and criticisms about the use and validity of the SHM have emerged in the literature (see Brown & Rohrer, 2020). Sheldon and Lyubomirksy (2021) admitted that the SHM was based on "certain starting assumptions and a non-exhaustive review of the literature" (p. 145). For such a widely cited model to be based in part on assumptions rather than empirical evidence brings the validity of the model into question. Regarding the three determinants, the original article implies that all three influences are independent from each other, uniquely contributing to an individual's chronic happiness. Brown and Rohrer (2020) asserted that independence between the three variables, particularly when considering the genetic influences, may be unlikely. Positive genetic influences may be mediated through intentional activities, and individuals' traits can be both heritable and

malleable at the same time; both are not accounted for in the SHM. Other critiques relate the percentages proposed by Lyubomirksy et al. (2005) including the lack of an error term and questions about the validity of adding up variances from different studies to arrive at generalized conclusions (Brown & Rohrer, 2020). Although SHM does acknowledge that the factor identified may be non-exhaustive (Lyubomirsky et al., 2005), the life circumstances influence is very broad, possibly including variables over which individuals have some control (e.g., income) as well as variables outside of one's control (e.g., demographic variables; Brown & Rohrer, 2020). Finally, and perhaps most concerning, the data referenced in the 2005 article was collected in the 1970s from a homogenous population (87-90% White), calling into question whether the result can be generalized to today's society despite its widespread reference and use. Even with valid critiques, the SHM continues to be the primary lens through which positive psychologists understand the factors that contribute to chronic happiness.

Genetic set-point, or one's biologically determined happiness disposition, is estimated to account for between 20-50% of the variance in individual's chronic happiness (Lyubomirsky et al., 2005; Nes & Roysamb, 2015). This genetic set-point is hypothesized to represent one's mean level of SWB and can be thought of as a genetic "happiness baseline" (Nes & Roysamb, 2017, p. 1542). On average, individuals experience feelings of SWB higher than their set point approximately half of the time. This happiness baseline makes sense from an evolutionary perspective as individuals who can be emotionally flexible in response to unpredictable events are more likely accurately match their behavioral responses to situational changes. A response that is too positive or too negative can be maladaptive, and therefore being to more stably experience positive

emotions gives individuals an evolutionary advantage (Nes & Roysamb, 2017). Evidence from behavioral genetics provides support for the strong influence of heritable characteristics in chronic happiness, but the extent of this influence remains debated.

Discussing genetic influence without considering the effects of the environment on heritability would be an oversight. Environmental factors and variation can influence heritability and therefore one's happiness baseline. Factors and experience such as gender, socio-economic status, and parental divorce have been shown to influence genetics, highlighting how genetics both influence and are influenced by life circumstances within and outside of individuals' control (Nes & Roysamb, 2017). Furthermore, it is essential to note that while genetics has a strong influence in one's chronic happiness, heritability plays a markedly small role in one's momentary feelings of happiness, or one's current positive affect (Nes & Roysamb, 2017). An individual's state happiness appears to be almost entirely attributable to one's response to circumstances.

Environmental factors, or life circumstances, include living conditions, family dynamics, household income, and race. These factors are hypothesized to have the least influence on one's SWB compared to genetic factors and positive activities (Lyubomirsky et al., 2005). While life circumstances may have the least influence on SWB, given the current global context, the impact of external influences on happiness cannot be ignored. Set-point theory posits that while current circumstances can temporarily influence individuals' SWB in either the positive or negative direction, people tend to adapt to their circumstances, and thus, individuals' happiness level return to baseline (Weinberg et al., 2016). Nevertheless, Diener et al. (2018) "cast doubt" on set

point theory based on finding from the most recent Gallup World Poll (Gallup Organization, 2016), a happiness survey from 166 countries (p. 169). The poll suggested that people are not happy when they experience adverse conditions in which their social and material quality of life is poor at baseline (Diener et al., 2018). This notion highlights the significant influence of external factors on long-term happiness and perhaps provides counterevidence for the hypothesized return to baseline. These findings also shed light on the strength of societal influence on SWB, and how SWB promotion requires both individual and organizational (e.g., societal) efforts (Diener et al., 2018). Other researchers have suggested that people have many different genetic set points based on their current life circumstances, with more favorable circumstances triggering a higher genetic set point (Nes & Roysamb, 2017). Taken together, genetics and external contexts interact to play a large role in individual's SWB. The recent COVID-19 pandemic and reduced SWB are evidence of this inextricable link (see "COVID Led to Decrease in Adolescents' SWB" section for further discussion). Nonetheless, individuals can increase their own happiness through positive activities, even during extremely challenging circumstances such as the global pandemic.

Positive activities are behaviors, cognitions, and activities that mirror what happy people do (Lyubomirksy & Layous, 2013; Lyubomirsky et al, 2005). The most major and withstanding conclusion drawn by Lyubomirksy and colleagues (2005) from the SHM is that intentional behavior (i.e., positive activities) can make a difference to one's chronic happiness. It is by engaging in positive activities that people have the greatest potential to increase their SWB because research shows that sustainable changes in SWB can and do occur (Sheldon & Lucas, 2015). It is important to note that positive activities may have the potential to alter one's genetic set-point through long-term practice and persistent efforts (Nes & Roysamb, 2017). While there are differences surrounding how much each determinant influences SWB, researchers agree that genetics, life circumstances, and positive activities work together to form one's current level of SWB and that positive activities have great potential to change one's SWB.

Positive Activity Model

While the SHM hypothesizes about the influences that comprise chronic happiness, the Positive Activity Model (Layous & Lyubomirksy, 2014; Lyubomirksy & Layous, 2013) suggests that engagement in positive activities can increase happiness and that this increase is most likely to be successful under certain conditions (Sheldon & Lyubomirksy, 2019). Moderating factors include (a) those related to the activity itself (e.g., practice frequency, dosage), (b) those related to the individual (e.g., culture, effort), and (c) the intersection between the activity and person (i.e., person-activity fit; Layous & Lyubomirksy, 2013). Mediators such as frequency of positive thoughts, emotions, and behaviors are included in the model to provide information about how the positive activities might work to increase happiness.

While connected in their mission to cultivate positive feelings and satisfaction with life through intentional activities, PPIs differ in their form, frequency, target, and implementation setting. Consistent with the Positive Activity Model, Lyubomirksy and Layous (2013) outlined that "person-activity fit," or the interaction of personal features with the positive activity, and how this interaction can enhance or diminish changes in happiness. Individual person features include the individual's motivation to become happier, how much effort is put into the intentional activities, and the extent to which the

person believes they can change their own happiness (Lyubomirsky & Layous, 2013). Cultural backgrounds can also influence the effectiveness of PPIs. Cross-cultural differences in PPIs (e.g., Anglo-Americans reported greater increases in happiness than Asian Americans following a gratitude letter intervention; Boehm et al., 2011) may be traced back to origins of positive psychology, which was created from a predominantly Western values perspective (Seligman, 2019). Features of the positive activities include dosage (e.g., one time vs. weekly), the variety of activities presented (i.e., single component or multi-component), social support during the PPI, and continued practice of activities. Person features and activity features interact to influence the extent to which the person increases their positive emotions, cognitions, and behaviors (Lyubomirksy & Layous, 2013). In short, different activities will work better for different people.

Taken together, SHM and the Positive Activity Model highlight why PPIs have the potential to increase individuals' well-being. The Broaden and Build Theory of Positive Emotions (Frederickson, 2001) and attributional focus (Baumeister et al., 2001) provide insight into how PPIs can increase SWB.

Broaden and Build Theory of Positive Emotions

The mechanisms that underlie PPIs are related to functions of positive emotions and positive attentional focus (Smirnova & Parks, 2017). According to Fredrickson's (2001) broaden-and-build theory, positive emotions help individuals build personal resources that improve their well-being. Positive emotions lead to an increased cognitive capacity and behavioral flexibility, allowing an individual to build their social, psychological, and physical resources (Fredrickson, 2001). With increased capacity and flexibility, positive emotions continue to build over time, broadening attention,

promoting resilience, and predicting future positive emotions. Thus, increasing positive emotions stimulates an upward spiral of reciprocal positive emotions and broadened cognition. This upward spiral leads to enhanced emotional well-being (Fredrickson & Joiner, 2002). According to Fredrickson (2001), negative emotions narrow a person's cognitions and led to specific action tendencies (e.g., fight or flight response), while positive emotions aid individuals to "undo" the narrowing effects of negative emotions (Smirnova & Parks, 2017).

Positive Attributional Focus

The other mechanism at play within PPIs is positive attentional focus, or the redirection of excessive attention away from negative events, which can increase wellbeing (Smirnova & Parks, 2017). People naturally focus on and remember negative events more saliently than positive events, and this negative attentional focus is most common in individuals with depression and/or anxiety (Baumeister et al., 2001). PPIs (e.g., gratitude, optimism) can serve to facilitate a shift of attentional focus from negative events to more positive events, especially benefiting those with internalizing symptoms of psychopathology (Xu et al., 2015).

Through increasing positive emotions and redirecting attentional focus, PPIs can provide individuals, including youth, with the strategies and intentional practice needed to increase their happiness. While originally developed for adults, there is an increasing number of PPIs that have been adapted and tested with youth in schools. School-based positive psychology interventions hold great potential to increase positive emotions and help youth focus on positive events thus enhancing their well-being and school success.

Seminal and School-Based Studies of Positive Psychology Interventions

Youth mental health promotion should be a top priority for school leaders and the implementation of school-based PPIs may serve to promote well-being. The policydriven push for 21st century schooling aims to encourage schools to focus on the social, emotional, moral, and intellectual development of students (Waters, 2011). Schools are being urged to assume a larger role in supporting students' mental health and socialemotional growth, intentionally teaching skills that foster optimal functioning, social skills, well-being, and identity development (Chodkiewicz & Boyle, 2017). This emphasis on educating the whole student aligns well with the positive psychology values of enhancing well-being, flourishing, meaning, and virtue.

Aligned with the MTSS prevention framework, PPIs have been delivered at the small group (e.g., Suldo et al., 2014), classroom- (e.g., Suldo et al., 2015), and school-levels (e.g., Seligman et al., 2009). School-based PPIs shown to be effective with student populations include interventions designed to cultivate hope (Marques et al., 2011), gratitude (Froh et al., 2014), and character strengths (Quinlan et al., 2015). PPIs may emphasize a single target (e.g., optimism, gratitude, *or* character strengths) or multiple targets (e.g., optimism, gratitude, *and* character strengths). Furthermore, PPIs may be primarily student-focused or focus on multiple stakeholders such that the parents, teachers, and peers are involved in the students' work as well. Although school-based applications of PPIs are relatively limited, studies have shown that PPIs are effective means by which to enhance students' SWB within school contexts (Suldo et al., 2014; Tejada-Gallardo et al., 2020). It is essential that schools dedicate resources not just to symptom reduction but also to well-being promotion to enhance students' academic, social, emotional, and behavior success.

Explicitly teaching students to engage in positive activities to cultivate positive emotions. Students may broaden their flexibility in thoughts, thus attending to more positive experiences, and creating new opportunities for additional positive experiences. This increase in positive emotions can be followed by building psychological building blocks (e.g., mental resources, psychological resources, social resources, and physical resources). Students with mental building blocks have "better habits of mind," and are more likely to be mindful in the moment (Suldo, 2016, p. 61). Psychological building blocks help students recognize their strengths and heighten self-acceptance. Social resources help strengths students' relationships with others, make them more attractive to others, and perceive stronger support from others. Students with physical resources experience better health (e.g., better sleep, lower stress). Increasing students' psychological building blocks through positive emotions cultivate during positive activities may lead to complete mental health for more students, thus fostering student success across life domains. This explicit teaching may be especially important for early adolescents who experience a normative decline in SWB around the time they enter middle school, and perhaps even more important for youth who experienced the COVID-19 pandemic.

Single Component PPIs

The following section will review single component PPIs that target key psychological building blocks. Each psychological building block will first be defined, and then seminal studies and school-based investigations of PPIs will be discussed. **Gratitude**

Gratitude is a positive emotion that stems from the recognition that someone or something has given them something of value (Emmons & McCullough, 2003; McCullough et al., 2001). Gratitude as an emotion involves the recognition that one obtained a positive outcome that can be attributed to an external source. Recognizing the receipt of the outcomes enhances feelings of gratitude. Gratitude has been reciprocally linked to prosocial behavior; grateful individuals are more likely to respond prosocially to the benefactor to thank them for their actions and are also more likely to act prosocially toward others (Bartlett & DeSteno, 2006). Not surprisingly, grateful people are more likely to form and maintain relationships with others. Gratitude promotes social affiliation with others and strengthens relationships through also increasing socially inclusive behaviors, particularly toward the benefactor (Bartlett et al., 2012). Furthermore, gratitude has also been linked to enhanced subjective well-being for children (Froh et al., 2014), adolescents (Froh et al., 2009), and adults (Emmons & McCullough, 2003). In a study of 154 middle school students, Froh et al. (2009) found that gratitude was positively related to positive affect, life satisfaction, optimism, social support, and prosocial behaviors. Gratitude was also linked to positive emotions (e.g., pride, hope, inspiration, forgiveness, and excitement) but not negative emotions. Enhancing gratitude in adolescents is essential for supporting complete mental health and relationship building, which may be especially important during adolescence.

Compared to other PPIs, gratitude interventions are relatively easy to implement, straight forward, can be completed independently, and are low cost (Boggiss et al., 2019). As such, gratitude interventions have great clinical utility and can be easily transported for use with various populations and in a multitude of settings. In their seminal 2003
three study investigation, Emmons and McCullough published the first three experimental investigations of gratitude journaling, called "Counting Blessings," on psychological and physical well-being. In the first study, 201 undergraduate students were divided into three groups: gratitude listing, hassles, or neutral life events. Participants across groups were asked to keep a weekly journal for 10 weeks to record their mood, coping behavior, health behaviors, physical symptoms, and overall life appraisal. In addition, each group was prompted to list five things, either things in their lives that they were grateful for (gratitude listing condition), hassles that occurred in their lives (hassles condition), or ordinary events that took place (neutral life events condition). When compared to the hassles and life events groups, participants in the gratitude listing condition reported feeling better about their lives as a whole and more optimistic about the upcoming list. This group also reported fewer physical complaints and spent more time exercising. Changes in positive and negative affect were similar across groups. Study 2 investigated the same intervention with two modifications. The 157 undergraduate participants were instructed to complete the journal once per day for two weeks and a downward social comparison condition replaced the neutral life events condition. Results indicated that participants in the gratitude listing group felt more grateful than those in the hassles and social comparison groups. There was also a positive correlation between gratitude and positive affect. Participants in the gratitude condition were more likely to report offering emotional support to others suggesting that prosocial motivation may increase as a result of daily gratitude journaling. The third study examined the effects of Counting Blessings for 65 individuals with neuromuscular diseases. Individuals who completed the gratitude journal reported feeling more satisfied

with their lives as a whole, more optimistic about the upcoming week, and more connected with others. Most importantly, participants who engaged in gratitude journaling reported consistent improvements in overall well-being, including higher positive affect, higher life satisfaction, and reduced negative affect. These improvements in well-being were reported to be apparent by the participants' significant others.

In a similar study of gratitude journaling, Seligman et al. (2005) found that a daily gratitude journaling intervention, called Three Good Things, increased adults' happiness and decreased depressive symptoms. Five hundred and seventy-seven adult participants were recruited and participated in the intervention online. Participants assigned to the Three Good Things condition were asked to write down three things that went well each day and a casual explanation for each of the three things each night for one week. Participants assigned to the control condition were instructed to record an early childhood memory each night for one week. Adults who named three good things and casual explanations each night for one week began to show beneficial effects one month following the post-test and stayed happier and less depressed than those in the control condition at three month and six month follow ups. One week of documenting things for which one is grateful, with a casual explanation, led to long lasting positive effects.

Following the success of gratitude journaling for increasing SWB with adults, gratitude journaling was transported into the school setting. Froh et al. (2008) partially replicated the Emmons and McCullough (2003) study with an adolescent sample. Two hundred and twenty-one sixth and seventh grade students were randomly assigned to one of three conditions: gratitude listing, hassle, or control condition. Students in the gratitude listing condition (n = 76) were instructed to list up to five things they were grateful for

since the prior day. Students in the hassles condition (n = 80) were provided the same directions but told to document five hassles they experienced. Each day for two weeks, after completing the lists, all students completed well-being ratings that targeted psychological, physical and social indicators of well-being. Students in the control condition (n = 65) only completed the daily ratings. Following the two weeks of daily ratings, all students completed a three-week follow up. Students in the gratitude listing condition reported enhanced gratitude, optimism, life satisfaction, and decreased negative affect, all of which maintained at the three-week follow up. Students in the gratitude listing condition also reported increased satisfaction with their school experience, highlighting the potential for gratitude journaling to "counter negative cognitive appraisal of academic experience" and prevent associated negative school outcomes (Froh et al., 2008, p. 229).

Kindness

Acts of kindness are "intentional acts undertaken to benefit others, regardless of underlying motives, and can include behaviors such as giving a compliment, paying for another's meal, or helping a colleague with a work task" (Shin et al., 2021, p. 80). Performing acts of kindness have been linked to enhanced subjective well-being for children, adolescents, and adults across cultures (Gherghel et al., 2021; Otake et al., 2006; Layous et al., 2012).

Otake et al. (2006) suggested that there exists a reciprocal relationship between engaging in acts of kindness and SWB. One hundred and nineteen female undergraduate students in Japan were assigned to an intervention (n = 71) or control group (n = 48). Participants were asked to rate their SWB one month prior to the intervention (baseline)

and one month following the intervention (follow up). To study the effects of an acts of kindness intervention called "counting kindness," intervention group participants were instructed to record the number of acts of kindness they performed across one week, rate the extent to which they achieve the goal of performing acts of kindness, and rate the extent to which they experience gratitude throughout the week. Participants who engaged in acts of kindness across one week reported feeling increased SWB at follow up. Furthermore, participants who experience large gains in happiness also become more kind (i.e., performed more acts of kindness) and more grateful as a result of the counting kindness intervention. Performing acts of kindness for others may increase personal wellbeing and lead individuals to engage in more acts of kindness in the future.

Completing acts of kindness are often incorporated into multi-component PPIs for youth (e.g., WBPP), yet few studies have examined acts of kindness as a standalone intervention with youth. Layous et al. (2012) examined the effects of an acts of kindness intervention with preadolescents (ages 9-11) in a Canadian classroom setting. Nineteen classrooms (N= 415 students) were randomly assigned to one of two conditions: (a) perform three acts of kindness each week for four weeks or (b) visit three places each week for four weeks. Each week students reported what they did (acts of kindness or visits). Prior to and following the intervention, students completed measures assessing their life satisfaction, happiness, and positive affect; additionally, students were provided with a class roster and asked to indicate which students they liked in a peer nomination process. Following the intervention, both groups reported increases in their levels of life satisfaction, happiness, and positive affect. However, students who completed the weekly acts of kindness nominated more peers than those in the control group, suggesting that

performing acts of kindness may enhance peer acceptance. This study highlights the potential friendship effects that may result from performing acts of kindness during a developmental period in which social connections are of the utmost importance.

A recent clinic-based study adds to the field's understanding of how performing acts of kindness may benefit adolescents differently. Similar to Layous et al. (2012), adolescents (N = 99; mean age = 17 years) were assigned to one of three conditions: (a) perform acts of kindness for others three times per week for four weeks, (b) perform acts of kindness for themselves three times per week for four weeks, or (c) report on their daily activities (Tashjian et al., 2021). The groups were randomly assigned and were counterbalanced to account for age, sex, and ethnicity. Participants also completed preand post-intervention surveys to measure altruism, positive affect, negative affect, and perceived stress. Results revealed that the effects of the acts of kindness for others intervention varied by the adolescents' baseline state of altruism. Those who had higher levels of altruism at baseline were most likely to experience an increase in positive affect, decrease in negative affect, and decrease in stress. Furthermore, the adolescents who showed the greatest increases in positive affect also donated more money to charity when asked to donate following the intervention. This study suggests that performing acts of kindness for others improves well-being and promotes prosocial behavior for adolescents who already have a tendency toward altruism. These findings provide further support for person-activity fit within the Positive Activity Model as not all adolescents appeared to benefit equally from the acts of kindness intervention as personal qualities (i.e., altruism) played a major role in the outcomes.

Though under researched as a single component intervention, acts of kindness have been shown to lead to some gains in well-being for adolescents and young adults, particularly those who are more altruistic, as well as increased prosocial behaviors and enhanced peer acceptance.

Character Strengths

An emphasis within positive psychology is building "the good life" through the identification and cultivation of character strengths. Character is defined as a welldeveloped cluster of positive traits that are morally valued (Park & Peterson, 2009). Having good character helps youth thrive, and as such, character development, often referred to as character education, has a growing presence in school programming (Park & Peterson, 2009). In contrast to the Diagnostic Statistical Manual of Mental Disorders (DSM), Peterson and Seligman (2004) developed a handbook of character strengths and virtues as the positive psychology counterpart. The classification system is now known as the Values in Action Classification of Strengths and was developed in part to establish a common language for personal qualities with moral value (i.e., character strengths). The VIA project identifies 24 "ubiquitously acknowledged character strengths" that are organized into six virtues: wisdom and knowledge, courage, humanity, justice, temperance, and transcendence (Park & Peterson, 2009, p. 67). Character strengths organized into these virtues are defined by five attributes: (a) people possess varying degrees of the strengths, (b) character strengths are shown in thoughts, feelings, and behaviors, (c) they are malleable across the lifespan, (d) character strengths can be measured, and (e) they can be influenced by proximal and distal contextual factors (Park & Peterson, 2009).

Identifying and building certain character strengths is linked to improved life satisfaction in youth. Character strengths in youth are assessed using the VIA Inventory of Strengths for Youth (VIA-Youth; Park & Peterson, 2006). The VIA-Youth is a selfreport survey for youth ages 10-17 that contains 198 items and measures the strengths of the respondent strengths. Research shows that strengths of love, gratitude, hope, and zest are the most robust predictors of life satisfaction in youth (Park et al., 2004).

Furthermore, character strengths have also been linked to psychopathology. The strengths of zest, hope, and leadership are related to fewer internalizing problems and the strengths of persistence, honesty, prudence, and love were related to fewer externalizing problems (Park & Peterson, 2009). Additionally, character strengths of perseverance, fairness, gratitude, honesty, hope, and perspective predicted students' end of year grade point average (Park & Peterson, 2009). Cultivating students' character strengths, potentially through school-based interventions, may promote their well-being, reduce maladaptive behaviors, and enhance academic outcomes.

Strengths Gym is a 24-session classroom-level positive psychology intervention to enhance adolescents' use of character strengths (Proctor et al., 2011). Based on the entire VIA classification of character strengths, Strengths Gym has three versions for grades seven, eight, and nine. Sessions include in-class activities, open discussion, and homework practice to provide students with opportunities to build their strengths, learn new strengths, and strengths spot others. Proctor and colleagues investigated the effects of Strengths Gym on life satisfaction with 319 adolescents (ages 12-14) in two secondary schools in Great Britain. The authors reported that participants were primarily White and from low to middle socioeconomic backgrounds. Participants completed measures to

assess their life satisfaction, positive and negative affect, and self-esteem. Results showed that students who participated in the Strengths Gym intervention had higher life satisfaction than those who did not participate when controlling for baseline life satisfaction and demographic variables. Specifically, adolescents in the intervention group reported higher positive affect and self-esteem and lower negative affect. Empowering adolescents to build on their strengths and recognize strengths in others can lead to enhanced life satisfaction.

Hope

Hope refers to expectations about a specific situation (Gillham & Revich, 2004). The study of hope, particularly the goal-directed thinking aspect of hope, has a longstanding presence in psychology literature. According to hope theory, "a goal can be anything that an individual desires to experience, create, get, do, or become," and the ability to identify desirable goals is called goals thinking (Snyder et al., 2003, p. 123). Hope is a strength that embodies one's ability to engage in three ways of thinking. One must be able to conceptualize goals (goals thinking), develop strategies to reach the goals (pathways thinking), and the perception that one can use those strategies to achieve their goals (agency thinking; Snyder et al., 1997). All three types of thinking are necessary for a person to feel capable of attaining their goals. These feelings must be enduring and present across situations for a person to experience meaningful feelings of hope.

Through their investigation of the development and validation of the Children's Hope Scale, Snyder et al. (1997) tested the six-item version of the scale with populations of children and adolescents ages 8-17, including children with chronic illness, Attention-Deficit/Hyperactivity Disorder, cancer, and general education public school students.

Validation of the scale revealed characteristics associated with high hope in children and adolescents. Youth who were higher in hope experience higher self-esteem and enhanced optimism compared to youth with lower hope. High hope youth were more likely to view themselves as problem solvers, to focus on their success rather than failures when striving for goal attainment, and to attribute their failures to lack of strategy use and effort. Youth high in hope scored higher on academic achievement tests and experienced greater enjoyment in interpersonal interactions. Furthermore, youth high in hope were less likely than their less hopeful peers to experience symptoms of depression. Providing support to increase youth's level of hope has positive implications for their social-emotional and academic development.

Best Possible Self writing is a common PPI to enhance hope for adults and youth. In her seminal study, King (2001) demonstrated that writing about goals in the future (i.e., positive events) have the same health benefits as writing about traumatic events but with positive psychological consequences. Students from an undergraduate psychology course (N = 81; ages 18-42) were assigned to one of four conditions for four days of writing: (a) best possible selves in the future (life goals), (b) traumatic life experience, (c) combined (write about trauma for two days then write about best possible self for two days), and (d) control (write about mundane topics). Participants completed pre- and post-intervention measures to assess affect balance, life satisfaction, and physical health through health center visits. Participants in both the best possible selves and writing about trauma groups experienced physical health benefits unlike participants in the control group (i.e., fewer health center visits).; however, those who wrote about life goals also reported feeling fewer negative emotions and more positive emotions. Those who wrote about trauma led to feeling upset and a lowered mood, though the negative emotions were short-lived. Furthermore, participants in the best possible selves groups experience an increase in SWB over three weeks, while those in the trauma group returned to baseline levels of SWB after a slight decrease immediately following the intervention. Writing about life goals appears to have positive influences on SWB and physical health beyond the benefits of writing about negative and neutral events.

Best possible self writing has also been studied with youth and can be applied to specific life domains such as academics. Oyserman et al. (2006) conducted a 11-session intervention, called School-to-Job, to help middle school students identify their academic possible selves, align their academic possible self with their social identity, and teach strategies to achieve their academic goals. Participants included eighth grade students (N = 264; 71% African American, 17% Latino, and 11% White) with low-income backgrounds from three urban middle schools. Outcome measures included social identity, self-regulatory behaviors, academic outcomes, and depression. Students completed the outcome measures at the beginning and end of 8th grade as well as the start and end of 9th grade. Students who participated in the possible selves intervention made significantly more progress toward their academic goals, improved their grades and test scores, and decreased symptoms of depression, absences, and inappropriate behaviors in school. These effects maintained at the two-year follow up. Teaching adolescents to identify their best possible selves and facilitating strategies to achieve this self in relation to academics increases the likelihood of academic, social-emotional, and behavioral success for these students.

Marques and colleagues (2011) implemented a five-week hope-based intervention with Portuguese middle school students to analyze effects on hope, life satisfaction, selfworth, mental health, and academic achievement. Sixty-two sixth grade students (31 students in each of the control and intervention groups) met after school for one hour once per week for five weeks to participate in the Building Hope for the Future interventions. All students were White and most students (71%) were female. Students in the intervention group met as small groups of eight to twelve students with two group leaders who were doctoral students. The intervention utilized solution-focused, narrative, and cognitive-behavioral techniques through activities such as psychoeducation, skills training, structured activities, role play, and guided discussions. Teachers and caregivers of the students participated in a one-hour session during the first week. The intervention included topics such as learning about hope, structuring hope by creating personal goals, creating positive and specific goals by refining previous goals, practicing hopeful talk, and planning for the future. Students who participated in the hope intervention experienced significant changes in hope, life satisfaction, and self-worth at postintervention and 18 months later. No significant changes were found for mental health and academic achievement, although students' grade point averages appeared to trend in the positive directions. Fostering hope in middle school students can increase psychological benefits that enhance positive youth development.

Multi-Component PPIs

In contrast to the described single-component interventions that target one psychological building block, multi-component PPIs combine single-component interventions, often across sessions, to capitalize on multiple mechanisms of change to

enhance well-being. Including multiple PPIs within a single intervention increases the likelihood of person-activity fit. The Positive Psychology Education Program (PPEP; Halliday, 2014; 2017; 2020) and the Well-Being Promotion Program (WBPP; Suldo, 2016) are discussed as examples of school-based multi-component PPIs.

Positive Psychology Education Program

The PPEP is a multi-component, universal mental health intervention that incorporates practices from positive psychology, social-emotional learning, prevention, and health promotion (Halliday, 2020). The program consists of nine sessions delivered in small groups by teachers. The program includes sessions that teach positive activities to cultivate positive emotions, gratitude, meaning, and optimism. Positive activities include gratitude journaling (Seligman et al., 2005), acts of kindness (Otake et al., 2006), and envisioning best possible selves (Layous et al., 2013). In addition, the PPEP integrates an online depression and anxiety reduction program, which students complete alongside the positive activities. An investigation of the PPEP will be discussed later in more detail (see "Enhancing Intervention-Setting Fit Through Collaborative Adaptation").

The Well-Being Promotion Program

The WBPP is an evidence-informed, multi-component intervention that combines eight positive activities into a ten-session intervention for middle school students. The WBPP was first developed in 2007 by Shannon Suldo at the University of South Florida in response to one middle school's request for guidance in supporting their students' well-being. Prior to the WBPP, there were no published evaluations of interventions to increase happiness in youth, and the WBPP is unique is that it was specifically designed

to be implemented in school environments. Dr. Suldo and her research team created the WBPP as a downward extension from prior applications of positive psychology research and interventions, primarily conducted with adults. The WBPP is a manualized intervention that is divided into three phases, each focusing on different building blocks and associated single-component PPIs: (a) past-focused positive emotions (e.g., gratitude), (b) present-focused positive emotions (e.g., kindness, character strengths), and (c) future-focused positive emotions (e.g., hope). The primary goal of the WBPP is to build students' capacity to use positive activities to increase their happiness.

Core features of the WBPP align with the Positive Activity Model (Layous & Lyubomirksy, 2014) and are consistent with research-based recommendations (Suldo, 2016). The variety of positive activities in the WBPP equips students with a variety of methods to cultivate positive emotions. This variety enhances the likelihood of person-activity fit (Lyubomirsky & Layous, 2013) for some activities and reduces the likelihood that any one activity will become routine. The timing and dosage of the PPIs included in the WBPP are based on previous studies of single-component PPIs to balance feasibility and effectiveness (e.g., gratitude journaling is initially assigned daily for one week then is reduced to once per week for continuous practice). As the program progresses, students are afforded more choice in which activities to practice at home and are encouraged to continue using strategies with the greatest person-activity fit. Each WBPP session emphasized the active rehearsal of the PPIs and homework assignments provide opportunities for students to practice the activities in their natural environment. Finally, students are encouraged to build bonds amongst peers within the small group

environment and the small group may provide lasting social support for students to continue the activities after the program.

In the first investigation of the WBPP, Suldo et al. (2014) piloted the program with sixth grade students (N = 55) who reported feeling less than delighted with their lives. Participants were between 10-12 years old and the majority of students were White (35%) or Hispanic (30%). Data were collected regarding global life satisfaction, affect balance, and psychopathology at baseline, post-intervention, and six-month follow-up. Students were randomly assigned to an intervention condition (n = 28) or a waitlist control (n = 27). School psychologists and school psychology graduate students delivered the 10-week intervention with small groups of students. Participation in the WBPP was associated with increases in global life satisfaction, while students in the control group declined in their life satisfaction. Gains of students in the intervention group maintained at follow-up, but life satisfaction of students in the control group also improved. There were no significant effects for affect balance or psychopathology. Importantly, students reported enjoying the intervention and their feedback indicated that they appear to benefit from the intervention.

Roth et al. (2017) investigated the WBPP with the addition of two follow-up sessions during which the PPIs were reviewed and a minimal parent involvement component. Participants included 42 seventh grade students at one urban middle school who were primarily White (83%) and from middle to high socioeconomic backgrounds (89%). Students were randomly assigned to the WBPP group (n = 21) or a waitlist control (n = 21). The added parent involvement component consisted of a one-hour parent information meeting and weekly handouts that described the positive psychology

target of the week. Results indicated that students in the intervention group experienced significant increases in life satisfaction and positive affect and decreases in negative affect. Gains in positive affect maintained at the two-month follow up. At post-intervention, students who participated in the WBPP exhibited small reductions in psychopathology that maintained at follow-up. The WBPP is a promising multi-target PPI for enhancing SWB of middle school students who exhibit room for growth in happiness.

Both previous studies of the WBPP used research team members to facilitate the intervention as designed with students during typical in-person instruction. Despite the emerging evidence that the WBPP is effective for increasing students' SWB, it is not known how the intervention could be adapted to better fit within specific school contexts. Nevertheless, considering the COVID-19 pandemic and shift to emergency remote learning, the WBPP may be a Tier 2 mental health intervention that is well matched to student needs, especially during the difficult time.

<u>Circumstances Resulting from the COVID-19 Pandemic and Emergency Remote</u> Learning

The COVID-19 pandemic greatly affected millions of youths around the globe and increased urgency for the provision of school-based mental health interventions. Recently, Magson et al. (2021) published one of the first studies to examine the impact of the COVID-19 pandemic on adolescent mental health by comparing functioning at the early stages of the pandemic to pre-pandemic functioning. Data were collected from 248 adolescents (ages 13-16) as part of an ongoing project called the Risks to Adolescent Wellbeing Project in Australia. The majority of the participants were White, spoke English, and had middle to high socioeconomic status backgrounds. Adolescents first completed measures related to their mental health and life satisfaction during 2019, and in May 2020, they completed the same measures with additional assessment about their experiences during the pandemic. Overall, participants reported modest yet significant changes to their mental health, specifically increased symptoms of depression and anxiety and diminished life satisfaction. Participants cited their primary sources of distress to be related to not being able to see their friends, a family member or friend becoming ill and/or dying from COVID-19, and not being able to participate in extracurricular or social activities. Interestingly, adolescents cited little concern for their own health or distress about contracting COVID-19.

Analyses also revealed several potential moderating factors, including gender, problems with online learning, conflict with parents, and social connections. Firstly, while both males and females experienced significant changes in depression, anxiety, and life satisfaction, this decline was more pronounced for females. Secondly, switching to exclusive online learning did not appear to significantly affect mental health and life satisfaction, but those who experienced challenges with online learning did experience a significant decline compared to those who did not. Commonly reported problems with online learning included technological problems, not understanding the online materials, limited access to teachers to clarify content, and problems with motivation. Thirdly, adolescents who experience greater conflict with their parents during the pandemic reported greater declines in life satisfaction compared to participants who reported low conflict. Finally, participants who reported strong social connections during the pandemic reported fewer symptoms of depression and anxiety and more life satisfaction than their

less connected peers. In sum, the COVID-19 pandemic appears to have a significant negative effect on adolescents' mental health and life satisfaction. It is important to note that this effect was modest, suggesting that many adolescents are coping well with the challenges presented by the pandemic. Adolescents who struggle to cope with the hardships of the circumstances would benefit from targeted mental health support interventions to enhance life satisfaction, which could be provided through school-based PPIs like the WBPP.

While the WBPP holds great potential for enhancing students' happiness in typical middle school contexts, it is unknown how the COVID-19 pandemic and resulting emergency remote instruction will influence its effectiveness. Emergency remote teaching (ERT) occurs in response to crisis circumstances, such as the COVID-19 pandemic, and is a temporary shift in instructional delivery to an alternative delivery method (Hodges et al., 2020). ERT requires all teachers, students, and caregivers to use technology in ways they may not have experienced before, which revealed how illprepared many were to use technology-rich teaching and learning (Trust & Whalen, 2020). In a survey of 260 K-12 teachers primarily from the United States, teachers identified their top challenges as learning how to use technology, selecting technologies for teaching, and troubleshooting technology challenges (Trust & Whalen, 2020). Teachers provided technology-rich instruction prior to the pandemic reported experiencing an easier time with the transition to ERT. Many educators used technology tools in ways that replicated traditional classroom practices, such as delivering content through synchronous classes, which appeared to reinforce teacher-centered practices (Trust & Whalen, 2020). While research related to classroom teaching practices is

emerging, it is not yet known how school-based mental health providers adapted their delivery of mental health interventions to emergency remote teaching. Hodges et al. (2020) suggested that face-to-face instruction should not be directly compared with ERT for reasons such as differences in the mediums and the various ways people learn. The researchers recommended that evaluations of ERT should focus on process elements, such as how technology was utilized, more so than on product elements like student outcomes.

The pandemic has heightened the need for targeted mental health interventions yet has also required that educators deliver all instruction and support using technology. The emergency shift to remote learning includes the remote delivery of mental health interventions to permit student access to services during the pandemic. The shift calls into question whether existing mental health interventions can be adapted for remote delivery and feasibly implemented via videoconference. Hepburn et al. (2016) evaluated a researcher-modified telehealth version of a manualized, family-focused, cognitive behavioral group intervention for youth with autism spectrum disorders (ASD) and anxiety called Facing Your Fears: Group Therapy for Managing Anxiety in Children with High-Functioning Autism (FYF; Reaven et al., 2011). The telehealth version of the FYF was created to increase access for families in rural communities and was designed to maintain the critical elements of the program with adaptions for delivery via videoconference. Thirty-three families (telehealth FYF: n = 17; wait-list control: n = 16) participated in the intervention. The feasibility of the telehealth implementation was assessed through evidence of recruitment and enrollment, treatment completion, attendance, satisfaction, usability of technology and fidelity of implementation. Results

suggested that therapists were able to implement key elements of the FYF with high fidelity, but technological challenges greatly impeded some families' ability to participate in sessions. Most of the families (94%) completed the intervention, and all parents and most of the youth expressed high acceptability of the telehealth intervention. Parents reported that the group context of the intervention provided welcome opportunities to share and learn from other parents. Therapists noted that it was difficult to observe and address via videoconference parent-child interactions, a critical component of the intervention. Technology-related suggestions for program improvement included improving sound quality and providing hard copies of written materials in advance. Hepburn and colleagues (2016) concluded that despite some challenges with technology and therapist ability to observe interactions, the telehealth version of FYF was feasible and could provide access to specialized intervention that may not otherwise have been available.

While mental health interventions designed for technology and delivered via telehealth have been shown to be effective (e.g., Hepburn et al., 2016), little is known about how existing mental health interventions can be adapted for ERT. Furthermore, it is unknown if mental health interventions implemented via videoconference are feasible for school's remote learning settings during the pandemic. School-based mental health providers must rely on knowledge about how interventions can be adapted and implemented in new settings (e.g., through co-design within a research-practice partnership) to meet the mental health needs of students during the pandemic.

Supporting Implementation to Maximize Intervention Success in School Contexts

The field of implementation science greatly informs education researchers' and practitioners' understanding of how interventions can be feasibly implemented in practice. The goal of implementation science is to improve the quality and effectiveness of evidence-based interventions by focusing on the strategies used to implement the interventions (Eccles & Mittman, 2006). Feasibility is an outcome variable of implementation science research. By assessing the feasibility of mental health interventions, schools gain important information about the processes that underlie implementation in their context to inform iterative processes to enhance intervention-setting fit (Gadke et al., 2021). A focus on feasibility and intervention implementation may be key for closing the research-to-practice gap.

The subsequent section will discuss a widely used conceptual framework for intervention implementation which includes: (1) the systems and factors that influence implementation, (2) the identification and utilization of implementation strategies, and (3) the use of collaboration to adapt interventions thus enhancing intervention-setting fit. The section will conclude with three examples of school-based implementation research studies that highlight the collaborative adaption of mental health interventions, how case study research designs are well-matched to questions about implementation processes, and factors that influence implementation.

Consolidated Framework for Implementation Research (CFIR)

Damschroder and colleagues (2009) synthesized existing implementation theories into their Consolidated Framework for Implementation Research (CFIR) with the goal of establishing common constructs for reference across the field. CFIR is meta-theoretical as it is built from existing theories and can be applied across contexts. The framework

consists of five major domains: intervention, outer setting, inner setting, individuals involved, and the intervention process. Each of the major domains constructs that provide additional considerations and factors within the domains. The intervention domain encompasses characteristics of the intervention being implemented in an organization. Intervention constructs include whether the intervention was developed internally or externally, stakeholders' perceptions of quality, adaptability to local needs, complexity, design and packaging, and cost. Outer setting includes the external contexts in which an intervention resides such as the political, economic, and social contexts. The extent to which organizations consider patients' needs, their connections to other organizations, the pressure from other organizations to implement the intervention, and external policies and incentives all contribute to outer setting influences on implementation. While the line between outer and inner setting is not always apparent, the inner setting is comprised of the structure, politics, and culture in which the intervention will take place. Constructs within the inner setting include structural characteristics (e.g., age, maturity, and size of the organization), culture (e.g., norms and values), and implementation climate. In contrast to culture, which is more stable, climate embodies considerations such as tension for change, learning climate, goals and feedback, and readiness for implementation. The individuals involved in implementing interventions have significant influence over the process and outcomes. Their knowledge and beliefs about the intervention, self-efficacy for implementation, personal stage of change, and identification with the organization among other factors (e.g., motivation, intellectual ability, and innovation) play a role in implementation. The final domain is the process by which the intervention is accomplished, which the authors present as a series

of phases. The process starts by engaging appropriate individuals to be involved in the intervention. Then, the intervention is implemented according to plan. Quality of implementation can be conceptualized as fidelity, intensity of the intervention, timeliness of delivery, and the degree of engagement of those involved. Finally, those involved should reflect and evaluate the implementation process and outcomes using qualitative and quantitative feedback from stakeholders. Since initially published in 2009, the CFIR has been cited in more than 300 published articles and has become a popular framework for evaluating implementation processes.

Recently, the CFIR framework was described in the context of educational settings (Lyon & Bruns, 2019b). The domains will be presented from least to most malleable. Within schools, the outer setting can be defined as systems at the district level and above. These systems, including government, can be difficult to change. Rather than focusing on implementation strategies in the outer setting, change agents use dissemination strategies to distribute information to key stakeholders. The inner setting can be conceptualized as building level settings, including administration, grade level leaders, and distributed leadership teams. School climate and the adoption and sustainment of new practices are included within the inner setting. Leadership variables are critical for intervention and student success. Unlike the inner setting in which less is known, more is known about how intervention level variables affect implementation. Individuals, including their professional background, experience, education status, beliefs, attitudes, self-efficacy to implement EBPs, and motivation to engage in training and implementation, affect implementation. Intervention variables include intervention design (e.g., complexity, packaging) and intervention-setting fit. Lyons and Bruns

asserted that user-focused redesign is an underutilized implementation strategy that could enhance contextual appropriateness at the intervention level. They recommended that schools be deliberate about adapting research-based interventions to meet their specific contextual needs to increase the success of scaling up the intervention. School personnel and researchers alike should attend to the strategies that enhance the usability and feasibility of interventions in schools.

Implementation Strategies

Implementation strategies are defined as, "methods or techniques used to enhance the adoption, implementation, and sustainability of a clinical program or practice" (Proctor et al., 2013, p. 2). Strategies vary and target different levels of the setting (e.g., outer setting, individuals, intervention, inner setting; Damschroeder et al., 2009). The goal of implementing the strategies is to obtain favorable intervention outcomes (e.g., acceptability, appropriateness, adoption, cost, feasibility, fidelity, penetration, sustainment; Proctor et al., 2011). The Expert Recommendations for Implementing Change (ERIC; Waltz et al., 2015) study aimed to gain consensus around common language for terms, definitions, and categories used to describe implementation strategies that guide mental health research and practice (Powell et al., 2015). Seventy-one implementation science experts, about half of whom also have expertise in clinical practice, provided two rounds of feedback on the ERIC strategies via web survey and polling during one live meeting to gain consensus. This modified Delphi process resulted in a compiled list of 73 discrete implementation strategies. Strategies were organized into nine categories: engage consumers, use evaluative and iterative strategies, change infrastructure, adapt and tailor to context, develop stakeholder interrelationships, utilize

financial strategies, support clinicians, provide interactive assistance, and train and educate stakeholders. Specific strategies included developing academic partnership, obtaining and using feedback from clients and families, and organizing clinical implementation meetings. It is recommended that stakeholders prioritize implementation strategies that are high feasibility and high importance (Lyon et al., 2019).

Education settings differ from healthcare setting along numerous dimensions. Education specific challenges include educational timelines, professional characteristics, policies and organizational constraints (Forman et al., 2013; Owens et al., 2014). The School Implementation Strategies, Translating ERIC Resources (SISTER) project sought to adapt the ERIC strategies for utility in school settings (Cook et al., 2019). Three experts in conducting implementation research in schools along with the two lead researchers from ERIC engaged in an iterative adaption process to change the ERIC strategies to fit the school setting. Changes were made to 57 of 73 ERIC strategies, including label changes (28 strategies), changes to the referent (39 changes), changes to terminology used to describe the strategy (50 changes), and changes to examples (17 changes). In addition, five ERIC strategies were deleted and seven were added specifically to support school-based implementation. New strategies included targeting and improving implementer well-being, improving implementers' buy-in, and testdriving and selecting practices. The SISTER strategy compilation provides school-based implementers with a "useful starting place" to successfully bring evidence-based practices into school settings (Cook et al., 2019, p. 932).

To assess perceived feasibility and importance of the adapted strategies (SISTER strategies; Cook et al., 2019), Lyon et al. (2019) surveyed school-based practitioners to

gain their perspectives on the strategies based on their experience implementing mental health interventions in schools. Two hundred school-based practitioners who deliver EBPs for youth with mental health concerns were included in the sample. The participants were predominantly female (81%), non-Hispanic white (73%), and held master's degrees in psychology or education (90%). The online survey asked participants to rate on a scale from one to five how important and feasible they perceived each strategy to be. The five strategies rated to be more important were to conduct ongoing training, make training dynamic, provide ongoing consultation/coaching, monitor the progress of the implementation effort, and improve implementers' buy-in. The five strategies rated as most feasible were to make training dynamic, distribute educational materials, remind school personnel, facilitation/problem solving, and capture and share local knowledge. Lyon et al. also note the importance of strong relationships that underlie the utility of the feasibility strategies. Future research may include gathering feasibility and importance ratings from other school-related stakeholders such as administrators. The identification of implementation strategies that school personnel perceive to be feasible and important may help schools prioritize actions that will lead to successful implementation, closing the implementation gap.

To glean insight into intervention developers' perceptions of factors that facilitate or hinder implementation, Forman and colleagues (2009) interviewed 24 developers of 25 school-based evidence-based interventions that have been shown to be effective through randomized control or quasi-experimental research designs. Qualitative analysis revealed several areas that should be addressed for successful implementation. The intervention must have the support of school administrators (i.e., principal support) as well as teacher

support (or interventionist support). Fiscal resources must be allocated to support implementation efforts and sustain practice. Implementers should be provided with highquality training and consultation for successful implementation. Intervention-context fit, such as the alignment between the intervention and school philosophy, goals and other programs, is critical; however, at least one intervention developer in the study described a perceived lack of knowledge and skill for addressing implementation issues in practical settings. Forman et al. (2009) suggest that universities bear responsibility for ensuring that developers and practitioners work together to implement evidence-based interventions that fit within school settings. Together, developers and practitioners can work together to enhance intervention-setting fit, facilitate implementation, and problem solve barriers.

Enhancing Intervention-Setting Fit Through Collaborative Adaptation

Intervention-setting fit, or appropriateness, is the "perceived fit, relevance, or compatibility of the innovation or evidence-based practice for a given practice setting, provider, or consumer; and/or perceived fit of the innovation to address a particular issue or problem" (Proctor et al., 2011, p. 69). Appropriateness is a multilevel construct that should be assessed at multiple levels (e.g., organizational, provider, consumer). To explore how school-based practitioners describe the fit between a modular psychotherapeutic approach (i.e., Managing and Adapting Practice; Chorpita et al., 2009) and multiple levels of school systems, 17 school-based mental health providers from middle and high schools participated in semi-structured qualitative interviews to discuss the ways in which their school context influenced implementation and their perspectives on the fit with practice (Lyons et al., 2014). Interviewees acknowledged the variability in

school-based mental health service delivery, particularly emphasis on influences at the client and provider levels. Perceptions of client appropriateness were characterized by a match in values, intervention flexibility to meet specific needs, and cultural value appropriateness to enhance client engagement. Perceptions of clinician appropriateness were defined by variability in how clinicians responded to the needs of their clients and school context and the practical appropriateness of the intervention in being able to meet students' needs. It is essential that researchers and practitioners consider how interventions fit into school systems and make necessary adaptation because perceived appropriateness appears to facilitate implementation.

Adaption is critical for improving the intervention-setting fit. In fact, Lyon and Bruns (2019a) suggested that implementation cannot occur without adaption. According to Lyon and Koerner (2016), well-designed interventions with high useability (i.e., how an intervention or product is utilized by practitioners to achieve specific goals within the intended context), should embody several characteristics: (a) learnability, (b) efficiency, (c) memorability, (d) error reduction, (e) satisfaction, (f) low cognitive load, and (g) exploit natural constraints (e.g., designed to fit their context). Implementation outcomes that are more subjective in nature are more strongly associated with perceptions of intervention useability, whereas more distal variables (e.g., treatment integrity) are less strongly associated (Lyon & Bruns, 2019b). One way to enhance the useability of existing interventions, particularly intervention-setting fit, is by redesigning the intervention to align with the needs of the end users (i.e., school-based mental health providers).

With the increasing recognition of the importance of attending to process variables when researching school-based mental health interventions, there is growing knowledge about what implementation constructs, practices, and processes look like in real-world settings. Wolk and colleagues (2019) partnered with school mental health teams to adapt a team-enhancing approach from healthcare to school settings. To answer the question, "how can we enhance the implementation of evidence-based practice with school mental health teams," the research team met with relevant stakeholders to adapt the Team Strategies and Tools to Enhance Performance and Patient Safety (Team STEPPS; Agency for Healthcare Research and Quality, 2007) and piloted the adaptation in six schools. The intervention consisted of an introductory module and four didactic modules to build teams' skills, strategies for improving skills, and tools for overcoming barriers. Adaptations were primarily made during community advisory board meetings in which all clinicians were invited to participate. The university-based research team was an equal partner to the school team but assumed responsibility for executing the adaptations. The adapted intervention was implemented with 27 individuals across six school-based teams. Using the CFIR guidelines, researchers assessed the feasibility and acceptability of the program through qualitative data with the goal of describing the process of adapting and implementing the intervention. The participants were primarily Black (59%) and held paraprofessional roles (59%). Forty-six percent of the school personnel left their positions during the three-year project. Themes that emerged from the qualitative data about the process of adaption and implementation included loss of agency champions, staff turnover, logistical challenges, and protecting autonomy. Furthermore, Wolk et al. described the adaption process which resulted in adapting language and case

examples to fit the school context but maintained the core components of the intervention. While the adaptation process was time consuming, the participants reported high acceptability. Recommendations based on the project include partnering with multiple organizations, when possible, to reduce the effects of turnover, especially for key stakeholders, and to be flexible and responsive to the community partner's needs, particularly around scheduling. This study provides an example of how research teams and schools can work together to adapt an existing intervention to the school context by capitalizing on the collective expertise of researchers and local practitioners.

Through a more comprehensive case study approach, Hickey et al. (2018) also explored the factors and processes that underlie a collaborative adaption and implementation of an existing evidence-based intervention. The retrospective case study sought to analyze the planning process utilized during the initial stages of implementation and to explore the factors that influenced the uptake of EBPs within the case context. The study centered on the design and early implementation of a prevention and early intervention initiative called Youngballymun. The goal of the intervention was to promote the development, adoption, and implementation of youth mental health services in an urban area of Ireland. Data collected and analyzed included documentation (e.g., meeting minutes, information sheets, websites), one-on-one interviews, and focus groups with key stakeholders. Data were analyzed using reflexive thematic analysis (Braun & Clarke, 2006) and focused on the implementation strategies used for enhancing interventionist buy-in and addressing intervention appropriateness. Results indicated that data gathering, conducting needs assessments, and organizational development were key facilitators of implementation, while resistance to innovation was a barrier. Factors that

aided implementation included encouraging and supporting stakeholder engagement and adopting a flexible approach to implementation planning. Having active involvement of stakeholders in the planning process and early stages of implementation was a key asset for ensuring fit between the intervention and the systems in which the intervention was embedded. This case study provides an exemplar of the utility of case study designs for providing an in-depth analysis of implementation process variables.

Halliday et al. (2020) shed light on processes and factors that influence the implementation of positive psychology interventions in schools. The case study examined the planning, delivery, and success of an evidence-informed positive education pilot program (PEPP) that was implemented in an Australian high school. Students who participated in the group-based intervention engaged in several PPIs (e.g., gratitude journaling, acts of kindness, and best possible selves) to enhance their well-being. During the intervention preparation phase, researchers solicited input from teachers which led to the adaptations such as adding videos to the session presentations. Data collected included student outcomes (e.g., well-being, resilience, anxiety), focus groups and interviews with students and teachers, and written feedback from teachers and parents. Like Hickey et al. (2018), qualitative data were analyzed using reflective thematic analysis. Agreement and disagreement between qualitative data and quantitative within each theme was then established. Results suggested that the program was not effective in increasing student well-being or resilience but may have prevented mental health from declining across the school year. Thematic analysis identified recipient outlook, stakeholder support, organizational support, and provider enthusiasm and understanding as being factors that influenced implementation. Furthering understanding of how

positive psychology interventions are implemented within school settings may help enhance systems that promote student well-being.

While the importance of studying implementation has been widely recognized, given the uniqueness of context, there remains much to learn about how schools implement interventions in the real world. The COVID-19 pandemic and switch to ERT drastically changed implementation settings for all school-based instruction. Adaption is an important method by which to enhance intervention-setting fit and may be even more critical due to school personnel's lack of experience and knowledge about providing services remotely. During a time when adolescents may have a heightened need for mental health services, schools were forced to adapt to a challenging new environment, often using interventions and programs that were not designed to be delivered remotely. There are few studies examining the implementation process of PPIs in schools, and no known studies investigating how school mental health providers adapted and implemented positive psychology interventions to support students' well-being during the COVID-19 pandemic. The current case study seeks to fill this gap in the literature by shedding light on (a) how a university-based research team and middle school mental health providers collaboratively adapted an existing PPI (the WBPP) to be delivered in the remote learning environment (i.e., to enhance intervention-setting fit) and (b) the processes that influenced feasibility of the co-design WBPP implementation.

CHAPTER 3: METHODS

Study Context and Background

As part of the larger RCT (R305A200035 funded by the Institute of Education Sciences), school-based mental health providers at the partner school participated in a professional development series to prepare for in-person WBPP implementation that was planned for the fall of 2020. After the workshop series, the partner district announced that students would not return to in-person instruction during the fall semester and therefore the grant-related implementation planning was put on hold for this school. Equipped with training in the WBPP, the partner school recognized the importance of well-being promotion, especially during the pandemic, and initiated a service-delivery oriented, research-practice partnership to adapt the WBPP to be implemented within their remote learning environment. This chapter first outlines the WBPP professional development series as well as the demographics of the interventionists and students to provide background and context for the study procedures. Next, the measures and data sources are described, and the co-design and intervention procedures are detailed. Finally, the research design and data analysis procedures are outlined.

WBPP Professional Development

To prepare for the planned in-person implementation of the WBPP, all interventionists participated in a six-session professional development series which led to certification in the WBPP. The workshop series was led by Dr. Shannon Suldo, the developer of the WBPP, and was delivered via videoconferencing (i.e., Zoom). The school-based mental health providers as well as two university-based interventionists were trained across two days in August 2020. The remaining two university-based interventionists were trained as part of a graduate student professional development opportunity in Fall 2020. The training consisted of (a) a self-study independently completed prior to and in between workshop sessions and (b) six two-hour virtual workshops to learn about positive psychology and the WBPP as well as to practice facilitating WBPP sessions.

Self-Study

Prior to the start of the workshop series, interventionists received two self-study materials: (a) *Promoting Study Happiness: Positive Psychology Interventions in Schools* (Suldo, 2016) that contained the WBPP intervention manual, and (b) *The Wellness Journal*, a researcher-created workbook to guide interventionists to apply positive psychology principles to their own lives and to practice positive psychology interventions. Prior to each workshop, interventionists were assigned sections of *Promoting Student Happiness* to read and review, activities within *The Wellness Journal* to practice PPIs aligned with workshop topics, and a survey to monitor their own SWB. A member of the research team scored the survey and emailed to interventionists a personalized score report with a visual display of SWB scores graphed over time to communicate their baselines levels of SWB as well as their subsequent SWB across the workshops.

Workshop Series

The purpose of the workshop series was threefold: (1) to learn about positive psychology and specifically, the WBPP, (2) to practice facilitating the WBPP sessions through role play opportunities, and (3) to discuss logistics for how WBPP could be implemented within the context of the partner school. In addition to attending the

workshops, to become certified to deliver the intervention as part of the research study, interventionists were required to demonstrate knowledge of and competency with the WBPP. Knowledge of the WBPP was measured through a knowledge test following the training series on which the minimum criteria was a score of 80%. Competency for delivering the WBPP was measured through observation of acceptable procedural fidelity (i.e., at least 80%) during a within-session role play and demonstration of satisfactory group counseling skills. Both criteria had to be met in order to be become certified in the WBPP. All eight interventionists obtained certification to deliver the WBPP following their respective workshop series.

Setting

The partner school was a suburban public middle school in the northeastern United States with a student population of 623 students across grades six through eight. During the 2020-2021 school year, the school's student population identified as White (69.2%), Hispanic (16.4%), Multi-Race, Non-Hispanic (7.5%), African American (3.9%), Asian (2.9%) and Native American (0.2%). The school enrolled 306 male students (49.1%), 313 female students (50.2%) and 4 non-binary students (0.06%). Twenty-nine percent of students experienced economic disadvantage. Economic disadvantage is defined by the Department of Elementary and Secondary Education (DESE) as a student's participation in one or more of the following state-administered programs: Transitional Assistance for Families with Dependent Children (TAFDC); the Supplementation Nutrition Assistance Program (SNAP); Department of Children and Families' (DCF) foster care program; and MassHealth (Medicaid). The partner school is designated a Title I school by DESE. In March 2020, the partner school closed for in-person learning due to the COVID-19 pandemic and the school provided emergency remote instruction through the end of the 2019-2020 school year. For students in general education, remote instruction continued into the 2020-2021 school year and throughout the duration of this study. Students who received special education services attended in-person academic instruction during the study. For the current study, all interactions between interventionists, students, and caregivers took place remotely via videoconferencing, email, or phone. The codesign process was conducted via videoconferencing, emails, and document sharing. The intervention was delivered via videoconferencing for general education and special education students, and the WBPP materials were shared via Google Classroom and the applications within the Google suite (e.g., Docs, Slides, Forms, Jamboard).

<u>Participants</u>

Interventionists

Interventionists were school-based mental health professionals (N = 4) who were employed by the partnering school district (hereafter referred to as "leaders"), and graduate students in school psychology (N = 4; hereafter referred to as "co-leaders"). Leaders were invited to serve as interventionists by an administrator based on the leaders' interest, professional capacity, availability, and certification in the WBPP. The co-leaders were invited to serve as interventionists by the principal investigator because of their interests, availability, and certification in the WBPP. The leaders were predominantly female (87.5%) with an average age of 35.99 (SD = 11.58). Leaders included two guidance counselors, one school psychologist, and a Board Certified Behavior Analyst (BCBA). Four graduate students in school psychology served as co-

leaders; in addition to being a graduate student, one co-leader (the researcher) was also a certified school psychologist and BCBA. Regarding highest degree earned, five interventionists held master's degrees in education-related fields, and three interventionists held bachelor's degrees in psychology. The interventionists' demographics are further detailed in Table 3.1 presented at the end of this chapter.

Interventionists also reported their previous experience in their professional field, their experience using technology professionally, and their experience with group counseling. In total, the interventionists had an average of 6.32 years of professional or clinical experience in their fields (SD = 10.45). All interventionists endorsed extensive experience using a laptop for job-related purposes, and all interventionists indicated at least some previous experience using videoconferencing (i.e., Zoom) for professional purposes. Half of the interventionists reported having no previous professional experience using Google Classroom (see Table 3.2). For group counseling experience, seven interventionists (87.5%) reported having at least some previous experience with school-based groups. Half of interventionists reported having been an observer to group counseling, two interventionists had some experience as a co-leader, two interventionists had extensive experience as a co-leader, and two interventionists had some experience as a leader. No interventionists endorsed having extensive experience as a leader of group counseling. Interventionists' previous experience with group counseling is presented in Table 3.3.

Students

Student participants were eighth grade students (N = 36) who were identified as having room for growth in happiness via school-wide screening, and who provided
student assent and parent consent (see Screening and Recruitment). The participating student population was predominantly female (72.2%; 22.2% male; 5.6% non-binary) and White (88.9%; African American, 5.6%; Asian, 2.8%, and Pacific Islander, 2.8%). Thirty-one percent of students identified as Hispanic/Latino. Sixty-four percent of participating students experienced economic disadvantage. Three students (8.3%) were identified as English Learners. Student demographics are presented in Table 3.4.

Measures and Data Sources

Qualitative Data

Interventionist Background and Experiences Questionnaire

All interventionists completed a brief questionnaire via Google Forms to collect demographic information as well as previous experience with technology and group counseling. In addition, interventionists reported their reasons for being invested in the WBPP and their perceptions of preparedness and willingness to work with a co-leader. See Appendix A for the questionnaire.

Meeting Notes

The research team recorded notes during meetings with the partnering school to document the co-design process, decisions that were made to adapt and implement the WBPP in the context of the remote learning environment, and why these decisions were made. De-identified meeting notes are presented as part of the document database to increase the reliability of the case study and the trustworthiness of conclusions (Yin, 2014).

<u>Emails</u>

In addition to meeting notes, emails between the research team and school-based interventionists were analyzed to document the chronology of the co-design process, the purpose of the interactions, and the decisions made during the co-design process and to plan logistics for implementation.

Interventionist Checklist

Immediately following WBPP sessions each week, interventionists completed an Interventionist Checklist via Google Form housed on the website. The purpose of the checklist was to document remote adaptions made to the WBPP session protocols, student engagement, and reflections on the content (e.g., discussions, activities) and process (e.g., group dynamics, group counseling skills) of the session. Interventionists answered four open-ended questions prompting reflection on the remote adaptation aspects of the session, content, and process of the session, and were provided with a space to give suggestions for future sessions and remote implementations. See Appendix B for the Interventionist Checklist.

Interventionist Feedback Form

Interventionists completed the Interventionist Feedback Form via Google Form posted on the website following WBPP Session 11, the session for post-intervention student data collection. The purpose of the Interventionist Feedback Form was to glean interventionists' perceptions of the WBPP curriculum, the remote implementation of the WBPP including the digital materials and videoconferencing, positive activities, the codesigning process, and the ongoing support from the research team. Interventionists were also asked if they would be willing to participate in an interview to provide further insight into their experiences. See Appendix C for the Interventionist Feedback Form.

Interventionist Interview

Interventionists who provided assent to be interviewed (N = 7) met one time via videoconference with a member of the research team who was not directly involved in the remote implementation of the WBPP. Interviews were audio-recorded with a mean length of 58 minutes and 14 seconds (SD = 10 minutes, 56 seconds). The purpose of the interview was to glean interventionists' perceptions of the WBPP as a whole and the remote implementation regarding (s) acceptability, (b) feasibility, (c) suggested improvements for future use, and (d) personal growth in group counseling skills and use of positive activities. The interviewer asked semi-structured questions to guide the interview and used probe questions to prompt the interviewee to elaborate on their perceptions about the co-design process and remote implementation. The procedures and interventionist interview protocol are included in Appendix D.

Student Feedback Form

Students who attended five or more WBPP sessions were asked to complete the Student Feedback Form via Google Form. Students who attended the final Session 11 (N = 13) were provided time to complete the Form during the session, and all students present at Session 11 completed the form. Sixteen students who were absent for Session 11 were invited via email by a school-based interventionist to complete the Student Feedback Form through an embedded link to the Google Form. Two additional students completed the Form outside of a WBPP for a total response rate of 51.7%. The purpose of the Student Feedback Form was to record acceptability of the WBPP curriculum and more specifically, the remote implementation of the program. The first five questions of the Student Feedback Form come from the WBPP materials to be delivered during

Session 10. For the current study, additional questions were added to the original inquiries to assess perceptions of the remote implementation. Appendix E details the open-ended questions included on the Student Feedback Form.

Student Interview

Students who endorsed willingness to be interviewed on the Student Feedback Form were invited to participate in a brief interview with an interventionist. Four students participated in the interviews that were held via videoconferencing for approximately thirty minutes. The interviewers recorded student responses to the semi-structured questions in writing. The purpose of the interview was to glean student perspective of acceptability of the WBPP, specifically regarding the remote implementation. The procedures and interventionist interview protocol are included in Appendix F.

Caregiver Feedback Form

The Caregiver Feedback Form inquired about caregivers' perspectives on the program and the perceptions and observations of their child's experience with the WBPP. Thirty-three caregivers were invited by a school-based interventionist via email to complete the Caregiver Feedback Form as a Google Form. Four caregivers completed the form for a response rate of 12.1%. The Caregiver Feedback Form is outlined in Appendix G.

Caregiver Interview

Caregivers who endorsed willingness to participate in an interview on the Caregiver Feedback Form were invited to participate in a brief phone interview with an interventionist. Two caregivers participated in an interview to gather their perceptions of the WBPP. Interviewers recorded caregiver responses to the semi-structured question in

writing. The procedures and interventionist interview protocol are included in Appendix H.

Quantitative Data

Intervention Integrity

Intervention integrity was recorded following each WBPP session. Intervention integrity checklists from the WBPP (Suldo, 2016) were adapted into Google Forms and were posted on the website to be completed by the co-leader. The content of the intervention integrity checklists did not deviate from the in-person WBPP for the remote implementation. An example of an intervention integrity checklist is presented in Appendix I.

<u>Student Attendance, Homework Completion, and Student Engagement with Google</u> Classroom

In line with typical WBPP implementation practices, co-leaders recorded weekly student attendance and evidence of homework completion. In addition, to record students' use of the digital WBPP materials on the Google Classroom, co-leaders recorded the extent of students' engagement with each digital material. Co-leaders determined if students did not engage with a material, had some engagement with a material, or fully completed the material as assigned. In addition, co-leader noted if the material was not assigned to the student, or if the student was absent from the session. Attendance, homework completion, and engagement with Google Classroom were recorded via Google Sheet posted on the website following each session.

Use of WBPP Digital Materials

Leaders recorded which digital materials were used during each week's session via Google Form and rated the usefulness of each digital material as not accomplishing its intended goal or as accomplishing its intended goal.

Student Life Satisfaction Scale

The Student Life Satisfaction Scale (SLSS; Huebner, 1991) is a 7-item self-report measure of global life satisfaction in children and was used for screening and evaluation in the current study. The SLSS is designed for use with children above the age of eight and has been validated for use with adolescents (Reckart et al., 2018). Respondent rate perceived life satisfaction on a six-point Likert scale from 1 (*strongly disagree*) to 6 (*strongly agree*), with the exception of two items that are reverse scored from six to one. One example of an item from the SLSS is "my life is going well." The SLSS has strong psychometric properties, including strong construct validity (Huebner, 1991; 1994), convergent and discriminant validity (Huebner & Alderman, 1993), and internal consistency (Reckart et al., 2018). In a sample of middle school students, alpha coefficients for the SLSS exceeded .80 across all three administration time points. The alphas were .83, .97., and .84 for Time 1, Time 2, and Time 3, respectively exceeding minimum thresholds (Reckart et al., 2018).

Brief Multidimensional Students' Life Satisfaction Scale

Based on the theoretical model of the Multidimensional Students' Life Satisfaction Scale (MSLSS, Huebner, 1994), the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson et al., 2003) is a five-item scale that measures overall life satisfaction as well as domain-specific life satisfaction. Each of the five items asks students to make a judgment about their life satisfaction in one of five specific

domains (family, friends, self, school, and living environment), and rate their life satisfaction on a seven-point Likert scale from 1 (*terrible*) to 7 (*delighted*). Examples of items include, "I would describe my satisfaction with my family life as..." and "I would describe my satisfaction with my whole life as..." In the current study, the BMSLSS was used for screening and evaluation purposes.

The BMSLSS has been studied within schools with numerous samples of adolescents (e.g., Huebner et al., 2011; McDougall et al., 2013; Ng et al., 2018), and demonstrated adequate psychometric properties. In a sample of 796 seventh and eighth grade students, the sum score of the BMSLSS showed adequate test-retest reliability (.60) over a one-year time period (Ng et al., 2018). Strong internal consistency was found in a sample of adolescents across one year demonstrating that adolescents' life satisfaction was relatively stable across the year; the coefficient alphas were similar across years at .76 for Time 1 and .78 for Time 2 (Huebner et al., 2011). Furthermore, Huebner et al. (2011) showed a significant relationship between the BMSLSS and the Student Engagement Instrument (SEI; Appleton et al., 2006) at Times 1 and 2, which suggests that the BMSLSS has adequate concurrent and predictively validity.

<u>10-Item Positive and Negative Affect Schedule for Children</u>

The 10-Item Positive and Negative Affect Schedule for Children (PANAS-C-10; Ebesutani et al., 2012) measures positive affect (PA) and negative affect (NA) to glean information about affect balance, the affective component of SWB. The PANAS-C-10 was used for screening and evaluation purposes in the current study. It was adapted from the PANAS, Child (PANAS-C; Laurent et al., 1999) to be used with school-based youth population more efficiently (Ebesutani et al., 2012). Students are presented with five items measuring PA (*joyful, cheerful, happy, lively, proud*) and five items measuring NA (*miserable, mad, afraid, scared, sad*). Students rate to what extent they experienced each of the emotions within the past few weeks on a five-point Likert scale from 1 (*very slightly or not at all*) to 5 (*extremely*). The PANAS-C-10 yields PA and NA scale scores. The scale has adequate psychometric properties, including appropriate internal consistency and discriminant validity. Alpha coefficients for the PA scale were .86, and .87 for the NA scale; these alpha estimates were comparable to the original PANAS-C, which were .89 and .88 for PA and NA, respectively (Ebesutani et al., 2012). Furthermore, the PANAS-C-10 demonstrated divergent validity between PA and NA (-..14, p<.01). The shorted version of the PANAS-C was able to discriminate youths with internalizing and externalizing disorders from each other, and from youths without internalizing or externalizing concerns (Ebesutani et al., 2012).

Strengths and Difficulties Questionnaire

The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) is a 25-item measure of prosocial behavior and psychopathology for children and adolescents. The SDQ is widely validated and is used in clinical practice due to its brief nature and measurement of a range of problems and strengths (He et al., 2013). The SDQ self-report version for youth ages 11-16 has five subscales, each with five items, to measure emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. Youth rate the extent to which they agree with the presented statement on a scale of 0 (*not at all true*) to 2 (*certainly true*). Multiple studies provide support for the five factors structure of the SDQ with adolescent populations (He et al., 2013; Van Roy et al., 2008). Scores from the emotional symptoms, conduct

problems, hyperactivity/inattention, and peer relationships problems subscales are appropriately reverse coded then summed to create a Total Difficulties score, which had an internal consistency coefficient of .77 that indicates adequate reliability (He et al., 2013). Goodman (2001) suggested that high scores on the SDQ were associated with increased risk for psychiatric disorders, providing evidence for the validity of the SDQ.

In addition, the current study used the extended version of the SDQ self-report to glean information about the perceived impact of reported problems (Goodman, 1999). The impact supplement starts with an inquiry if the responded believes they have a problem. Respondents rate their perceived difficulties on a four-point Likert scale (0=*no*; 1 = minor; 2 = definite; 3 = severe). If the respondent indicates that difficulties are not present, then the measure ends. If the respondent indicates that a problem is present (e.g., endorses 1, 2, or 3), the supplement then inquires about the duration of the problem (1 = less than a month; 2 = 1 to 5 months; 3 = 6 to 12 months; 4 = over a year). Impact scores for level of distress, social impairment, and burden for others are rated on a four-point Likert scale from 0 (*not at all*) to 3 (*a great deal*). Goodman (1999) demonstrated that the impact score held discriminant validity in that it was able to better discriminate between community and clinical samples than the Total Difficulties score. Furthermore, the burden rating correlated well to a standardized interview, which suggests that the SDQ supplement is a valid, brief measure of symptom impact.

Engagement vs. Disaffection with Learning - Student Version

The Engagement versus Disaffection with Learning - Student version (EvD-S; Skinner et al., 2009) is a 20-item measure of engagement, or one's involvement with schooling and the activities, goals and values that comprise the involvement, and

disaffection, or the absence of such engagement (Skinner et al., 2009). The CES consists of four subscales behavioral engagement, emotional engagement, behavioral disaffection, and emotional disaffection. Skinner et al. (2009) reported that the subscales could be used separately or in combination, and only the Behavioral Engagement and Emotional Engagement subscales were used in the current study. Each subscale consists of fiveitems and respondent rate items on a four-point Likert scale from 1 (not at all true) to 4 (very true). The Behavioral Engagement subscale measures students' effort, attention, and persistence when initiating tasks through items such as "in class, I work as hard as I can" and "I pay attention in class." The Emotional Engagement subscale measures students' motivation to be involved in learning activities with items such as "when I am in class, I feel good" and "I enjoy learning new things in class." In two samples of middle school students, Immekus et al. (2019) reported that EvD-S to have adequate internal consistency for the Behavioral Engagement subscale (.79, .83) and the Emotional Engagement (.90, .90). Skinner et al. (2009) concluded that the EvD-S provides adequate information about students' participation in academic activities in the classroom when compared to classroom observations.

Cognitive Engagement Scale

The Cognitive Engagement Scale (CES; Lam et al., 2014) is a 12-item self-report measure of the affective, behavioral, and cognitive dimensions of student engagement. The CES was developed by an international team of researchers and was validated for use with adolescents (Lam et al., 2014). Respondents are presented with a list of statements and asked to rate how often they engage in the activities on a five-point Likert scale from 1 (*never*) to 5 (*always*). An example of an item from the CES is "I try to match what I

already know with things I am trying to learn for school." The full-scale score of the CES demonstrated acceptable internal consistency (Cronbach's alpha = .78; Lam et al., 2014). Correlations between scores of two administrations completed six months apart demonstrated adequate test-retest reliability (.6-.74; Lam et al., 2014). Furthermore, the CES demonstrated moderate correlations between student engagement and positive emotions, academic performance, and school conduct (Lam et al., 2014). Lam et al. (2014) suggested that the CES can be used by researchers to describe and study student engagement at the specific and global levels.

Procedures

Well-Being Promotion Program

The Well-Being Promotion Program (WBPP) is a selective (i.e., Tier 2), small group positive psychology intervention that aims to increase students' subjective wellbeing (SWB). The WBPP has been previously evaluated in middle schools through two RCTs and has shown promise for improving students' happiness and school outcomes (Suldo et al., 2014; Roth et al., 2017). The WBPP consists of a student component and a minimal caregiver component. Consistent with Seligman's (2002) framework for cultivating positive emotions about the past, present, and future, and increasing engagement through identifying character strengths, the ten sessions of the WBPP include eight positive activities divided into phases focused on the past, present and future. Positive activities are taught and practiced within the group and through follow-up homework assignments. These activities are designed to increase students' gratitude, acts of kindness, use of character strengths, savoring positive experiences, optimism, and goal setting. Session topics and targeted positive activities are summarized in Table 5.

The caregiver component, which may be classified as "minimal or educational only" in terms of family engagement in mental health interventions (Reynolds et al., 2012, p. 259), includes 11 planned caregiver contacts. These contacts included one caregiver meeting followed by ten weekly written communications. Prior to the start of the WBPP, caregivers were invited to learn about the WBPP through an information session. During the information session, WBPP interventionists introduced the caregivers to positive psychology and the WBPP, shared the benefits of high SWB, and described the activities within the WBPP. Caregivers were also given the opportunity to practice a positive psychology intervention (PPI; e.g., gratitude journaling) during the information session. In addition to the information session, caregivers received weekly handouts from the interventionists that provide an overview of the week's WBPP session, a description of the assigned homework, and suggestions for the parents to apply intervention strategies in their own lives or as a family. It should be noted that caregiver contacts beyond these 11 planned contacts were invited and encouraged but were outside the scope of the WBPP.

Treatment Co-Design

Through the service-delivery oriented partnership, the partner school and university-based research team engaged in a co-design process to adapt the WBPP into a digital version that could be implemented within the remote learning context. The codesign process was comprised of five stages: formation/initiation, activities related to program revision, pilot planning, process evaluation, and feedback (Bearman et al., 2020). Through these stages, participants identified shared goals, examined the existing program and identified program adaption to enhance contextual fit, planned logistics of

screening, recruitment and implementation, and reviewed and reflected on the adaptions and implementation process. The co-design process primarily occurred via videoconferencing and email exchanges and continued throughout the remote implementation. Interactions between the university-based research team and the schoolbased providers during the co-design process are outlined in Appendix J.

Student Screening and Recruitment

SWB Screening

Two hundred and eleven eighth grade students were invited to participate in the SWB screening. In line with the typical district procedures, the partner school elected to use a waiver of informed consent process for screening (i.e., passive consent). Caregivers were notified of the screening via email and postal mail. The email notification contained a link to a Google Form through which caregiver indicate that their child should not participate in the screening. In addition, caregivers were mailed a form that could be signed and returned to the school. Caregivers were given two weeks to respond prior to the screening. Of the 211 students in eighth grade, three caregivers chose to opt out, so their students (1.4%) did not participate in the grade-level screening. Additionally, 13 students (6.2%) were absent on the day of the screening, thus screening data was not obtained.

One hundred and ninety-eight students (93.8%) completed the screening. Students were assigned code numbers so their screening data was not linked to their identities when screening data were shared with the research team for analysis. Of the students screened, seventy-five students (37.9%) identified as male, 120 students identified as female (60.6%), and three students identified as non-binary (1.5%). The eighth-grade

population who participated in the SWB screening identified as White (86.4%), Multi-Race (5.1%), Asian (4.5%), African American (3.5%), and Pacific Islander (0.05%); 16.7% of student identified as Hispanic. Twenty-five percent of students experienced economic disadvantage.

Students completed the SWB screening via Google Form during one class period. The screening process was facilitated by classroom teachers and supervised by the lead counselor. The screening survey included SLSS, PANAS-C-10, and BMSLSS. The screening yielded four composite scores from the three self-report measures: global life satisfaction (SLSS), average domain-specific life satisfaction (BMSLSS), positive affect (PA scale of the PANAS-C-10), and negative affect (NA scale of the PANAS-C-10). Descriptive statistics for the sample are provided in Table 6.

To identify students with "low subjective well-being," the research team investigated a variety of cutoff scores on a combination of measures. In line with prior studies that used the BMSLSS in screening procedures to identify students for targeted positive psychology interventions (e.g., Suldo et al., 2014), life satisfaction was used as the primary indicator of SWB as it is the most stable dimension of SWB (Diener et al., 2018).

Analyses indicated 39.0% of students had low subjective well-being based on life satisfaction, using clinically meaningful (vs. norm-referenced) cut points. Specifically, 28.7% had low global life satisfaction as indicated by mean SLSS < 4.0 on the 1 (*low*) to 6 (*high*) metric, and 34.9% had low multidimensional life satisfaction as indicated by mean BMSLSS < 5.0 on the 1 (*low*) to 7 (*high*) metric. The majority of students flagged as low subjective well-being (52/77 = 67.5%) scored low on both indicators. The other 25

students identified as low subjective well-being met criteria on only 1 of the 2 indicators, either the BMSLSS (20 students in addition to the 25 who overlap) or the SLSS (5 students in addition to the 25 who overlap).

Recruitment

Following screening, 76 students were invited for participation in the intervention due to being identified as having room for growth in happiness (i.e., low life satisfaction). School-based interventionists met individually with students to provide information about the intervention and obtain student assent. Thirty-six students (47.3%) declined to participate following the student assent meetings. Caregivers of all students who expressed interest in participating in the WBPP were sent consent forms via emailed Google Form. Five caregivers provided consent for their child to participate in the WBPP, but the student did not provide assent and was not included within the intervention group. Forty students had both student assent and caregiver consent to participate in the intervention. The final student sample consisted of 36 students who attended at least one WBPP session.

Remote Implementation of the Digital Version of the WBPP

Eligible students with parental consent and student assent (n = 40) were assigned to one of four intervention groups by the lead counselor. Each group was assigned ten students and was led by a school-based and university-based interventionist dyad. All groups met once per week via videoconferencing during the school's intervention block, a flexible, non-instructional time during which students could receive additional support as needed. The average duration of a group session was approximately one hour. Make up sessions were offered weekly by a university-based interventionist for students absent from their assigned group meeting. Students from any group were invited to attend the make-up sessions, which were also held via videoconferencing during the intervention block on a different day of the week from the WBPP groups.

Students completed baseline and post-intervention questionnaires during a videoconferencing meeting prior to the start of the WBPP implementation. The decision to add group meetings prior to and following the ten WBPP session was made through the co-design process. For baseline data collection, all eligible students met within a videoconference meeting with the eight interventionists. A total of 33 students (82.5%) completed the baseline questionnaire. Twenty-five students (62.5%) attended the baseline data collection session. Eight students (20.0%) completed the baseline questionnaire under the supervision of the lead counselor outside of the whole-group videoconference. For post-intervention data collection, a total of 15 students (37.5%) completed the questionnaire. Thirteen students (32.5%) completed the questionnaire during the post-intervention data collection videoconference, and two students (5%) independently completed the questionnaire outside of a videoconference.

Data regarding intervention integrity, session attendance, student homework completion, and student engagement with Google Classroom were recorded during and immediately following each session by the university-based interventionist

Ongoing Support for Interventionists

To support intervention implementation, interventionists engaged in ongoing support through weekly meetings with the interventionist team. School-based and university-based interventionists met together once weekly for thirty minutes via videoconferencing to (a) reflect on the previous week's WBPP session (e.g., content of

the session), (b) exchange group counseling strategies (e.g., strategies to engage students during the remote meeting), and (c) preview and plan for the upcoming week's session. Additionally, this meeting was used to engage in a continuous co-design process throughout implementation and data collection.

In addition to the weekly meetings, due to the complex nature of the Google system and novelty of remote delivery of WBPP, the research team created a website as means to share information with the interventionists, organize the digital materials, and store interventionist-specific materials such as intervention integrity checklists. This private website contained a webpage for each session of WBPP, and outlined the following: (a) Tips from the Trenches (i.e., implementation strategies crowd-sourced from the professional development workshops), (b) digital versions of the session intervention protocols, (c) digital versions of the intervention integrity checklists, (d) compiled interventionist reflections from the previous session, (e) tips for using the digital materials in the upcoming session an outline of the session with embedded previews, (f) links to all digital materials located within online storage, (g) data collection spreadsheets (e.g. attendance, Google Classroom engagement), and (h) interventionist checklists. The research team updated the website on a weekly basis to provide information most relevant to the school-based interventionists and the upcoming WBPP session.

Ethical Considerations

Data collected from students and caregivers were de-identified and provided to the research team as part of a service-delivery collaboration between the research team and partner school. Per the University of Massachusetts Institutional Review Board

(IRB), the use of the de-identified data does not constitute human subjects research, and therefore is not subject to IRB review. Written informed consent was obtained from all interventionists. The IRB at the University of South Florida provided approval for human subjects research. Interventionist interviews were audio recorded with consent and transcribed verbatim. Transcripts were anonymized and references to names and potentially identifiable information were removed from the documents to ensure anonymity and confidentiality. Identifiers were also removed from all written forms and documents.

Study Design

The proposed study employed a retrospective case study approach to shed light on the processes that underlie the remote implementation of the digital version of the WBPP during COVID-19 (e.g., Hickey et al., 2018). Researchers conceptualize case study research in various ways; for the purpose of this study, a case study will be viewed as an approach to research rather than a rigid design (Yin, 2014). Case studies are ideal for research contexts in which the behaviors of interest cannot be systematically manipulated, when the topic of interest is a contemporary event, and when the researcher has little to no control over the research environment (Yin, 2014). Because of this, case study designs are best used to evaluate situations in which the phenomenon and contexts are intertwined, in this case the remote implementation of the WBPP during COVID-19 (Baxter & Jack, 2008). In case study approaches, qualitative and quantitative data are used in tandem to elucidate decisions made during the phenomenon of interest, why these decisions occurred, and the results of these decisions (Yin, 2014). In the current study, interviews, documents, surveys, and baseline and post-interventions measures were gathered from various stakeholders to describe adaptations made to the WBPP and to explain the feasibility and acceptability of remote implementation of WBPP within the real-world context. The case study approach is well-matched to the study's goals of description and evaluation due to the complexity of, unusual circumstance surrounding, and range of stakeholder involvement in the remote WBPP implementation.

Data Analysis

Question 1: Co-Design Process

Documents (e.g., meeting notes, emails) were organized into a table documenting the chronology of the co-design process (see Appendix J). Using this table, a narrative of the co-design process was reconstructed to outline the co-design process including intended outcomes from interactions between the university-based research team and school-based providers and the actual outcomes of these interactions.

Question 2: Implementation Strategies that Influence the Feasibility of Remote Implementation

All qualitative data were analyzed using reflexive thematic analysis (Braun & Clarke, 2006; 2019). Within this data analysis approach, the active role of the researcher in data analysis is viewed as an asset (Braun & Clarke, 2013). The investigator independently conducted reflexive thematic analysis along with member checking and consensus building (to be described later in this section). This process was supported by the use of NVivo, a qualitative data analysis software package.

Reflexive thematic analysis involves a six-phase process for conducting the analysis: familiarization, coding, generating initial themes, reviewing themes, defining and naming themes, and writing up (Braun & Clarke, 2019). The familiarization stage

involved a close reading of all qualitative data. Summaries of expressed sentiments and researcher reflections were generated. Next, the investigator coded the data using the Gadke et al. (2021)'s feasibility dimensions framework (e.g., implementation, social validity, practicality). The generation of initial themes was initiated by the researcher's attempts to connect the data coded by feasibility dimensions to the larger context; however, the resulting themes did not capture the larger picture of the case. In response, additional coding processes took place. Within each feasibility dimension, an inductive coding process was utilized in which the researcher developed codes based on the content of the data, rather than imposing an existing conceptual framework. This was followed by a return to the theme generation phase. Themes were generated by grouping codes of similar sentiment across data sources (i.e., from various stakeholders, interviews, written feedback) into broader codes that eclipse one idea, assertation, or belief. These broader codes were organized into inclusive themes and sub-themes were established within each theme based on the content of the broader codes. To establish trustworthiness, themes and sub-themes were reviewed from multiple outside perspectives. All interventionists were invited to engage in member checking and received the broader codes, themes, and sub-themes via email for their review. Two interventionists (one school-based and one university-based) provided their insight. Both interventionists expressed agreement with the majority of the codes and themes shared with them. The school-based interventionist questioned the wording of some codes and identified certain codes that were inconsistent with their experience (e.g., "not enough training about how to use the digital materials.") The university-based interventionist provided additional insight about their group's experience related to relationship building and engagement. The researcher reviewed this

feedback and made modifications to the codes based on the suggestions (e.g., lessened absolute language such as changing "critical" to "helpful"). Furthermore, a researcher assistant familiar with the qualitative data independently organized the broader codes into the themes and sub-themes created by the investigator. Of the 76 broad codes included in the member checking process, the researcher assistant independently organized 73 codes (96%) into a six-theme framework that matched the framework proposed by the investigator. Following this step, the researcher team worked together to further collapse the themes into a broader framework. The final four theme framework was established using discussion and consensus building (Elo et al., 2014).

Themes generated from the reflexive thematic analysis were then triangulated with quantitative data sources to glean a full perspective of the remote implementation and to enhance trustworthiness (e.g., Halliday et al., 2020). Conclusions generated from perspectives of interventionists, students, and caregivers were compared to the quantitative data collected regarding treatment integrity, intervention attendance, interventionists' use of the Google Classroom materials, students' engagement with the Google Classroom, and student outcomes. All quantitative data was first analyzed independently from the qualitative using descriptive statistics (Palinkas et al., 2011). In addition, paired samples t-tests were conducted to compare baseline measures of behavioral, emotional, and cognitive engagement, psychopathology, global and domainspecific life satisfaction, and affect balance with post-treatment outcomes. The data were integrated into the themes established via reflexive thematic analysis as a secondary dataset to provide a comprehensive picture of the remote implementation of the WBPP (Palinkas et al., 2011).

Positionality Statement

The researcher acknowledges that her positionality (e.g., values, beliefs, and experiences) influenced how this study was conducted, the data analyzed, and the study results. The researcher is a White, female doctoral candidate in school psychology at a large research university in the northeast United States. She is a nationally certified school psychologist (NCSP) as well as a Board-Certified Behavior Analyst (BCBA). Her involvement in the current study began as part of her position as the project coordinator funded by the grant-funded RCT through which her responsibilities included managing logistical aspects of the study including coordinating the WBPP professional development series, communicating with all WBPP interventionists, managing purchasing and payments, supervising a graduate research assistant, and presenting at research conferences. Prior to becoming project coordinator, the researcher had limited understand of positive psychology, the Well Being Promotion Program, and remote instruction. She had prior knowledge and experience with universal mental health screening, school-based Tier 2 mental health interventions, and consultation. The researcher participated in the WBPP professional development series three times prior to this study.

The researcher participated in this study as both a researcher and a participant. Prior to the start of the current study, the researcher established collegial relationships with the school-based interventionists through her position as the project coordinator. During the co-design process, the researcher facilitated discussions at school team meetings related to the WBPP, served as the primary contact representing the research team, and made adaptions to all WBPP materials. She shared materials from the larger

RCT which was simultaneously conducted at another site in Florida, and she provided expertise related to the WBPP curriculum, positive psychology principles, universal screening, and outcomes evaluation. The researcher created the Google Classroom and all associated materials as well as the interventionist website. Regarding analysis of the screening data, the researcher received the de-identified data from the lead counselor and assisted the research team with data analysis.

In addition to facilitating the co-design process, the researcher also led the implementation of the program and served as an interventionist. She recruited two school psychology graduate students to serve as interventionists alongside herself and the graduate research assistant. The researcher created leader/co-leader pairings using her knowledge of the interventionists' personalities, strengths, and potential dynamic. She co-facilitated all 12 sessions of the WBPP with a small group of students and independently facilitated all make-up sessions. Her experiences as a facilitator in one WBPP group do not reflect the experiences of all interventionists across groups. The researcher completed all interventionist checklists herself, and collected ongoing data from other participants. In addition, each week the researcher reviewed and compiled themes across the interventionist checklists that were shared with the interventionist team. She created the agenda for and facilitated the weekly leaders' meetings with the other interventionists. Additionally, the researcher met with the university-based interventionists weekly to discuss how to support the school-based team. She also met with the graduate research assistant and the principal investigator to reflect on and plan for the study.

The school team collected written data (e.g., measures, written feedback) from the students and caregivers and shared the de-identified results with the researcher. The researcher was present for the four student interviews, serving as an interviewer for two interviews and a note taker for two interviews. Furthermore, she was interviewed and provided written feedback on the remote implementation that was included within the dataset for this study.

It should be noted that following the conclusion of this study, the researcher plans to continue working with this school team as project coordinator for the larger RCT in which the school plans to participate during the upcoming school year. The researcher acknowledges that the dual role of researcher and participant had a substantial influence in this study (e.g., through participant reactivity). The close relationships formed with the school providers and involvement in all aspects of service-delivery may be a strength for this study. Aligned with other types of qualitative research (e.g., ethnography), the researchers' subjectivity is viewed as an asset for qualitative analysis (Braun et al., 2019), so her in-depth participation in the implementation process likely enhanced the utility and potential application of the findings.

Tables

Table 3.1
Interventionist Demographics

Characteristic	М	SD
Age	35.99	11.58
Years of professional/clinical experience	6.43	10.45
	п	%
Female	7	87.5
Professional affiliation		
Public school	4	50
University	4	50
Primary role		
Guidance counselor	2	25
School psychologist	1	12.5
Board Certified Behavior Analyst	1	12.5
(BCBA)		
School psychology graduate student	4	50
Highest degree earned		
Bachelor's	3	37.5
Master's	5	62.5

Table 3.2

Interventionists' Previous Experience with Technology for Professional Use

	No experience		Some experience		Extensive experience	
	п	%	п	%	п	%
Smart phone	0	0	4	50	4	50
Laptop	0	0	0	0	8	100
Tablet	1	12.5	2	25	3	37.5
Zoom	0	0	2	25	6	75
Google Suite						
Classroom	4	50	2	25	2	25
Drive	0	0	1	12.5	7	87.5
Forms	1	12.5	3	37.5	4	50
Docs	0	0	3	37.5	5	62.5
Sheets	0	0	4	50	4	50
Jamboard	6	75	2	25	0	0
Slides	0	0	5	62.5	3	37.5
Sites	3	37.5	3	37.5	2	25

Table 3.3

	п	%
No experience	1	12.5
Observer role	4	50
Some experience as a co-facilitator	2	25
Extensive experience as a co-facilitator	2	25
Some experience as a lead facilitator	2	25
Extensive experience as a lead	0	0
facilitator		

Interventionists' Previous Experience with Group Counseling

Note. Respondents were permitted to select more than one option.

Table 3.4 Student De

Student Demographics		
Characteristic	N	%
Grade 8	36	100
Gender		
Female	26	72.2
Male	8	22.2
Non-binary	2	5.6
Race		
White	32	88.9
African American/Black	2	5.6
Asian	1	2.8
Pacific Islander	1	2.8
Ethnicity		
Hispanic/Latino	11	30.6
Economic Disadvantage	11	32.4*
Homeless/Foster	1	2.8
English Language Learners	2	5.6
Students with Disabilities		
Section 504	5	13.9
Individualized Education Plan (IEP)	7	19.4

Note. The percentage of students with economic disadvantage is reported based on a total of 34 students total due to missing data.

Table 3.5

Session	Target	Strategies/Positive Activities (PA)
Caregivers	Psychoeducation	Introduction to Positive Psychology and the WBPP
1	Positive Introduction	You at Your Best (PA 1)
		Positive Emotions about the Past
2	Gratitude	Gratitude Journals (PA 2)
3	Gratitude	Gratitude Visit (PA 3)
		Positive Emotions about the Present
4	Kindness	Acts of Kindness (PA 4)
5	Character Strengths	Introduction to Strengths (VIA Classification System)
6	Character Strengths	Survey Assessment of Signature Character Strengths
_	~	(PA 5)
7	Strengths; Savoring	Use of Signature Strengths in New Ways; Savoring
		Methods (PA 6)
		Positive Emotions about the Future
8	Optimistic Thinking	Optimistic Explanatory Style (PA 7)
9	Hope	Best Possible Self in the Future (PA 8)
10	All	Termination; Review of Strategies and Plan for Future
		Use (practice)

Sessions in the Well-Being Promotion Program

Table 3.6

Descriptive Statistics for SWB Screening (N = 195)

1	5	0		
	Global LS	Domain-specific	Positive affect	Negative affect
		LS		
Mean (M)	4.39	5.21	3.28	2.00
Standard	1.01	1.07	0.88	0.81
deviation (SD)				
Alpha values (α)	.86	.84	.88	.78

Note. LS = Life satisfaction.

CHAPTER 4: RESULTS

This study sought to describe the co-design process and to evaluate the feasibility of the remote implementation of the WBPP. This chapter starts with a narrative description of the co-design process. Then, themes gleaned from the qualitative data are discussed and are compared to quantitative data.

Question 1: Co-Design Process

The co-design process is presented based on documentation of all communication between the researcher and the partner school (e.g., emails, meeting notes) from the beginning of the service-delivery oriented collaboration through the remote implementation of the WBPP. Due to emergency remote teaching, the partner school was forced to delay their participation in the RCT as planned until the following school year and thus no longer had structured university-based research team support to implement universal mental health screening and the WBPP. To meet the potentially heightened mental health needs of their students during the pivot to remote teaching, the associate principal met with the research team to discuss remote options for conducting universal screening and supporting students' well-being during the pandemic. These discussions resulted in the initiation of a service-delivery collaboration between the partner school and research team to adapt the WBPP to target eighth grade students with room for growth in happiness. Eighth grade students were selected as the target population to reduce contamination effects for the future RCT, as eighth grade students would no longer be attending the school during the following school year when the RCT would be conducted.

To begin the co-design process, the associate principal and the lead counselor invited the investigator to remote school mental health (SMH) team meetings to harness the expertise of the mental health providers (e.g., counselors), teachers, and administrator on the team. The co-design process started with the SMH team-led creation of shared goals: (a) adapt screening and consent/assent procedures to align with the remote learning environment, (b) adapt the WBPP to be delivered via videoconference technology, (c) gather information about program implementation with a focus on stakeholder acceptability and potential for student benefit, and (d) facilitate the WBPP with eighth grade students identified as having room for growth in happiness. The SMH team identified a subgroup of members, including WBPP-trained providers, who were interested in engaging in the co-design process. The subgroup originally consisted of the associate principal, lead counselor, grade-level counselor, school psychologist, classroom teacher, and research team (i.e., researcher and principal investigator). The SMH team, in collaboration with the research team, established a timeline for achieving these goals.

To adapt the screening procedures, the investigator provided the team with documents and timelines from the larger RCT. School providers changed the document language, aligned screening procedures with district policies (e.g., passive consent for screening), and communicated with students and parents. Given the team's preference for surveying students via Google Form, the researcher created and shared a Google Form version of the well-being screening measure (SLSS, BMSLSS, PANAS) used in the larger study. The lead counselor facilitated the consent for screening process and the logistics of collecting screening data. De-identified screening data were shared with the

in happiness. In collaboration with the research team, the school providers determined that students who were not satisfied (i.e., mean SLSS < 4.0 or means BMSLSS < 5.0) would be eligible for the intervention rather than limiting the sample to dissatisfied students (i.e., mean SLSS < 2.0 or means BMSLSS < 3.0) so that a greater number of students could be supported through the intervention. SMH providers met with students individually via videoconference and used a script adapted from the script used in the RCT to discuss the program and then obtain student assent. SMH providers emailed intervention consent forms to caregivers of students who expressed interest in the program.

In conjunction with adapting the screening and assent/consent process, the SMH team, with guidance from the research team, identified constructs of interest to be measured before and after the intervention and selected measures from those presented by the research team. Team members prioritized measured that were brief and freely available. This discussion took place over several weeks until consensus within the school team was reached. The researcher created and shared a Google Form version of the outcome measures, which the school team reviewed and approved.

Concurrently with the screening and outcome measures, the SMH team and research team also discussed and planned the logistics of remote implementation. The school team provided key information related to scheduling for students and interventionists and preferences for technology (e.g., Zoom). Due to knowledge that teachers at the school were using Google Classroom, the research team proposed using Google Classroom to organize digital versions of WBPP materials, which the SMH providers confirmed. The researcher created all digital materials and organized the

materials into a Google Classroom. The school team was invited to review the digital materials and suggest changes. Regarding the incentive system, the research team proposed a points-based system to accommodate remote delivery, and the SMH team brainstormed possible incentives that could be delivered remotely. The SMH team elected to record an asynchronous version of the WBPP parent information session to be emailed to caregivers. The research team adapted the session to be school-specific. During the recorded session, the lead counselor welcomed families and expressed enthusiasm about the intervention, and the researcher (the principal investigator) led most of the session content.

Due to scheduling constraints of several WBPP-trained SMH providers, the research team recruited two additional WBPP-trained graduate students in school psychology to serve as co-leaders, bringing the number of university-affiliated co-leaders to four. The researcher created the leader and co-leader pairings based on observations related to personality, experience with positive psychology and group counseling, and strengths noticed during the 12-hour professional development workshop series and team meetings. The lead counselor created the student groups based on schedules, student needs, and personality. To support implementation of the WBPP and use of the digital materials, the researcher created and shared a Google website that housed all digital materials, tips for facilitating the program, and access to implementation measures (e.g., attendance, integrity checklists). In addition, the school team and research team jointly agreed to add two sessions to the WBPP, which brought the total number of sessions to 12. The purpose of the first session was to build rapport, explain the program, and collect baseline data pre-intervention. The purpose of the final session was program termination

and collection of post-intervention data. See Table 4.1 or a summary of the co-design adaptations to the WBPP and Table 4.2 for a summary of the roles of the research and SMH teams in the co-design process.

Taken together, results suggest that school-based mental health professionals and university-based researchers engaged in a co-design process by capitalizing on the research team's expert knowledge of the WBPP curriculum and procedures combined with the school team's local knowledge of the target setting and population. Using recommendations from the school team, the research team adapted to WBPP materials. The school team took the lead in facilitating the student- and caregiver-facing components of the program, and the research team supported the program via implementation supports (e.g., leaders' meetings). The co-design process exemplified the potential for research and school teams to work together to adapt existing interventions to local contexts.

Question 2: Implementation Strategies that Influence the Feasibility of Remote

Implementation

Implementation strategies and processes that influenced the feasibility of the implementation of the WBPP during emergency remote learning were categorized into themes. Interviews and written feedback from interventionists, students, and caregivers were analyzed using reflexive thematic analysis and the following four themes were constructed: (1) maintaining the structure and content of the WBPP curriculum, (2) using technology for remote implementation, (3) collaborating through a researchpractice partnership, and (4) recognizing the effectiveness of the remote WBPP. Descriptions of these themes are outlined in Table 4.3. Quantitative data (e.g.,

intervention integrity, session attendance, and outcome data) were triangulated with the results of the thematic analysis to confirm or refute the perspectives of key stakeholders, and results are presented alongside the themes in this section.

Maintaining the Structure and Content of the WBPP Curriculum

The structure and content of the WBPP curriculum were maintained from the originally developed WBPP during remote delivery as no adaptations were made to the session structure or content (e.g., positive activities) during the co-design process. The intervention integrity checklists included within the WBPP were also used without adaptation for the remote implementation. Interventionists discussed facilitating the curriculum structure and content (i.e., positive activities) of the WBPP, processes that both enabled and hindered the remote implementation.

Preserving Structural Elements of the WBPP

Several interventionists indicated that the structure and manualized nature of the curriculum facilitated program implementation. One interventionist indicated that the grouping of sessions into phases was acceptable when they stated, "I like the way that everything is sort of clumped together in terms of like past, present and future, so I think that really takes students through that program really, really well." Another interventionist reported that the balance between structure and flexibility of the session protocols enabled remote implementation. They explained how they enjoyed:

the clear delivery of the script and when to present activities. The curriculum is highly structured (which I love) but also allows for a great deal of room to add in additional times to expand on the curriculum in ways that are meaningful to the students in your group.

The structure of the intervention and individual sessions facilitated program implementation.

The amount of content, homework, and providing incentives were structural elements of the WBPP that interventionists and students reported to be a hinderance for the implementation. The depth of content across the program and within specific sessions (e.g., Session 8 for optimistic thinking) challenged interventionists to deliver the program. An interventionist explained:

Because there are so many activities, the program moves through them pretty quickly. I think the pace works for most students, but some students would definitely benefit from reteaching and more practice. I also think that some of the intervention protocols could be edited to be less wordy and more accessible for quick use during the session.

Additionally, statements from interventionists and students as well as homework completion data (also referred to as "at-home practice") showed low rates of homework completion. An interventionist reported, "We assigned [homework], and we would check for it, but it wasn't so much getting done." Because each WBPP starts with a review of homework, an interventionist reported that the lack of homework completion negatively influenced the session and they stated, "I think it was super hard and awkward to have a lesson based on a homework assignment that the kids didn't actually do." Many students expressed dissatisfaction with the assignment of homework completion, labeling the homework as "stressful" and difficult to remember to complete. One student wrote, "some of the at home practice felt like it was more work that you had to do and caused a little bit more stress." Mean scores across all sessions indicated that students reported that they completed or partially completed about half of the homework (M=55.33%, SD=12.03%). In response to low rates of homework completion, many interventionists emphasized the importance of practicing positive activities at home (rather than completing the homework) and adapted to allot time for students to practice a positive

activity at the start of the session rather than in between sessions. One interventionist described their approach of encouraging students to practice positive activities outside of the intervention sessions stating:

Reminding them that it was really important that they physically engaged in it, even though thinking about it was great too. It was the activity itself that was really ... critical and would help them... It seemed more that they were giving an idea about the at home challenge [homework] right then and there versus that they actually completed it.

Linked to the homework assignments, providing incentives for homework completion was another structural element of the WBPP that interfered with implementation. Interventionists indicated that the points-based incentive system adapted through the codesign process was not consistently used. One interventionist reported:

I think the hard part is that the foundation of the at-home practice in an in-person delivery is with the incentives and the small rewards, which we weren't really able to provide in a remote capacity and that ended up really being a roadblock.

Most students reported that they had neutral to negative feelings about the incentive system; when asked to provide feedback about the incentives, of the four students interviewed three students reported neutral feelings (e.g., "I didn't pay much attention to it") and one student indicated that the incentives led to a negative experience. This student explained, "if I didn't finish [the homework], it made me feel bad that I didn't get the points." The session pacing, homework completion, and the points-based systems reportedly presented barriers for implementation. Overall, preserving the overall structure of the intervention and sessions was reported to be a helpful strategy, while the pacing, homework, and points-based incentive system were structural elements that may require future adaptation.

Practicing Positive Activities within the COVID-19 Context

Within the structure of the curriculum, the positive activities in the WBPP were cited as being valued by interventionists, students, and caregivers. One interventionist described:

I really like how it sets up students to start thinking intentionally about the choices they're making in their lives that really can impact their wellbeing... I would say what I like best is the overall overarching themes of helping students create agency in their own lives.

Several students also mentioned appreciating the positive activities in the program, and one student wrote, "I think this program gives you a bunch of tools to use when you are feeling down." Furthermore, one caregiver indicated appreciation for the program goals and indicated, "I like when my child participates in things like this that help to expand his horizons, how other people handle stress." The same caregiver reported that at least one positive activity (optimistic thinking) aligned with behaviors they promote at home. They explained, "we do a lot of positive thinking, so it was familiar to him, and nice because I was already saying a lot of these things." Alignment between positive activities and stakeholder values contributed to participation in the program.

Interventionists and students also identified during exit interviews specific positive activities they indicated to be enjoyable and beneficial. Enjoyment of specific positive activities was reported to be a process that influenced interventionists and students' experiences with the WBPP. Interventionists most frequently identified both gratitude activities (i.e., gratitude journaling and visits) as the most enjoyable and beneficial positive activity (42.9%). All interventionists agreed that facilitating the WBPP led to the uptake of positive activities into their own lives. For example, one interventionist described how practicing gratitude through the WBPP increased her grateful thinking broadly, "I think in my head I'm a lot more able to recognize how
grateful I am for certain people in my life, and I take for granted that I might not always communicate that to them." When asked about which positive activities were most beneficial for students in their groups, interventionists cited a wide variety of activities and/or selected all of the activities. An interventionist exclaimed, "I find them all to be useful and beneficial! Teaching and talking about how to increase subjective well-being is fun and gratifying!" When interventionists perceived positive activities to be effective and enjoyable for them personally, the interventionists were more likely to report that positive activity as more enjoyable to lead and as more effective for students overall. Students most frequently selected the following positive activities as most enjoyable: (1) acts of kindness (66%), (2) new uses of signature strengths (53%), and (3) optimistic thinking (53%). Interventionists' perceptions of the effectiveness of the positive activity were reported to influence their enjoyment of facilitating the session. For example, one interventionist reported, "optimistic thinking might be my top [favorite] just because the students were more engaged than ever with that one. But I really enjoyed them all." Maintaining the structure and teaching of positive activities within the WBPP curriculum facilitated the remote implementation of the program.

In addition, interventionists and a caregiver reported that contextual factors associated with the COVID-19 pandemic influence students' ability to generalize skills as promoted through the homework assignments. From their experiences discussing homework activities with students, several interventionists and a caregiver reported that it was difficult for students to practice positive activities in a variety of settings and with different people. The stay-at-home order and remote learning limited many students' opportunities to practice positive activities in their household and with its members.

When thinking about supporting students to use their signature strength in new ways, one

interventionist outlined:

You're like go out there in the world and try these new and different things and see what happens, but like they can go walk down the street with a mask on. It's just limited opportunities, you know. So part of that I think because the limits due to the pandemic, ... like new and different ways to use your character strength.

Acts of kindness, reported among students to be one of the most enjoyable activities, may

be one of the most feasible positive activities to practice during remote learning. Another

interventionist elaborated:

I think that the acts of kindness was a top one ... it is so much influenced by like feasibility, just of the current time so what can you do while you are remote at home. So, like the acts of kindness, I think that [students] really took it upon themselves to do that, just like in their home lives and their family so, just simple things like doing the dishes or like complimenting your sister. Like really home oriented - that was a way that they were able to make that work.

A caregiver suggested that acts of kindness may be easier than other activities to practice because of opportunities afforded by technology. For example, they reported that their child practiced acts of kindness by sharing helpful codes with peers while playing video games. The COVID-19 context reportedly influenced students' use of positive activities in the home setting.

Furthermore, interventionists implemented the WBPP sessions with relatively high implementation using intervention integrity checklists developed for in-person delivery. According to treatment integrity data, interventionists self-rated moderately high average adherence to the core program elements during the remote implementation (M=89.1, SD=6.3; see Table 4.4 for intervention integrity data).

In sum, interventionists said that the structure of the WBPP curriculum eased their ability to deliver the WBPP even in the remote environment, while the amount of content, homework, and lack of consistent incentives created difficulties for implementation. The COVID-19 pandemic also complicated students' ability to practice positive activities in generalized settings. Implementation of the WBPP as measured by adherence to the WBPP as designed for in-person delivery was moderately high.

Using Technology for Remote Implementation

The use of technology to facilitate the program delivery and materials was the primary adaptation made during the co-design process, and all stakeholders (e.g., interventionists, students, and caregivers) acknowledged that the remote nature of the WBPP influenced its implementation. Specifically, utilizing a videoconference platform for WBPP sessions, completing digital version of WBPP materials, and adding technologies beyond the co-designed WBPP emerged as implementation strategies within this theme.

Implementing via Videoconference Platform

Interventionists reported that the videoconference platform (i.e., Zoom) functionally worked to deliver the WBPP content and facilitate the group session. The videoconference platform offered a variety of communication options through which the students could actively engage in discussion (e.g., chat, microphone use). Students and interventionists reported utilizing the chat feature within the videoconference platform. Most students reported that they primarily engaged with interventionists and peers through the chat feature and provided reasons such as "it's an easier way to share my opinion without background noise," "it'd be weird if I cut out or just had bad audio," and "always a bit scared to unmute." A few students indicated willingness to use their voices through the microphone, although these students also specified that they used both chat and voice. For example, one student explained, "voice is easier for longer stuff and chat is easier for shorter stuff." Interventionists also used the chat feature for facilitation purposes, an option not available during in-person delivery. One interventionist described how direct messaging was helpful for private communication with students and coleaders, "having the chat was also really beneficial to be able to direct message certain students to connect with them in a private way and also to directly message the coleader." Using a videoconference platform to deliver the WBPP permitted an avenue through which WBPP content was discussed with students and multiple communication methods for students and interventionists.

It is important to note that interventionists reported that the partner school's norms and expectations about technology use influenced the ways in which the students utilized the videoconference platform (i.e., cameras off, chat only). An interventionist detailed, "[camera use is] not something that's really part of our culture at school. By and large, the teachers are not forcing students to turn their camera on so that is not something [students are] used to doing." Many stakeholders suggested that participation in the remote WBPP felt like another academic class, which was mirrored in students' technology use. An interventionist reported, "it felt very school-ish, which was not definitely like the angle you wanted to go with." Another interventionist elaborated:

I think it was just overwhelming for some of [the students] technology wise and then just overwhelming because it felt like school for the other kids, because this wasn't school so it just - trying to pull it away from feeling - because we're doing on Zoom - that's all they do all day long, um, to kind of separate it a little bit more from like this academic type of feel so...

One caregiver expressed agreement and reported that their child said it, "felt too much like 'just another class' to be enthusiastic about it." Using the same videoconference

platform for academic classes and the WBPP groups influenced how most students engaged within the technology.

Implementing the WBPP through a videoconference platform reportedly influenced rapport and relationships between interventionists and students as well as between students. Many students reported that they elected to keep their cameras turned off during WBPP sessions for reasons such as, "everyone else had their cameras off," not being in a private space, not being "done up," and being without access to a reliable internet connection. Most interventionists cited students' lack of camera use as a barrier to building rapport with students. One interventionist reported, "completing the program with students without their cameras on made it difficult to engage and connect." Another interventionist wrote, "cameras off, voices off - it was so difficult to connect over Zoom." A different interventionist speculated that even with student camera use, building rapport with students via technology would be less effective than in-person implementation when they said, "even with cameras on, I feel like you can't always see the facial [expressions]. There's a lot of little pieces that we don't pick up." Many interventionists reported that challenges building rapport with students influenced their implementation and the potential effectiveness of the WBPP. For example, an interventionist reported:

with the relationship... while it's possible to do that in an effective way, I do think there is a lacking piece when you're not able to be in the same physical location as a student and go about it that way.

In addition, several interventionists reported that the use of a videoconference platform influenced students' interactions with each other. One interventionist reported, "[the students] were responding to us, and not so much each other... I didn't really see them interact that much." Another interventionist made a similar observation, "it seemed

like we had a couple of good chat conversations, but that was only, I think, maybe the first two sessions. After that there was very little interaction between the students." In contrast, one student reported that they engaged in peer interactions using the chat and then the microphone features of the videoconference platform, explaining, "I feel like they understood and took time for the three of us that attended to chat and communicate and build a relationship with each other, so we felt comfortable and confident sharing out what we wanted to say." Multiple interventionists also alluded to the importance of feeling comfortable and observing others be confident to share via technology and said, "I learned that it's important for [students] to see you as being vulnerable in a way, so that they will feel comfortable sharing and engaging with really sensitive topics that might come up within the Well Being Promotion Program." These feelings of comfort were also reflected in the student feedback surveys on which many students cited the group environment as the most enjoyable aspect of attending the program. Students cited what they liked best about the program to be aspects such as, "good to talk to nice teachers," "nice to see us all get more comfortable with each other," "the community of it," and "being able to talk about life with no judgement." One student who was interviewed described feeling understood by the leaders, experiencing a mutual understanding among the students, and felt that the group was a "safe," "comfortable," and "judgment free" zone. While most of the interventionists cited experiencing limited rapport with students, many students indicated that interacting with their WBPP group resulted in feeling connected to their leaders and peers.

Most interventionists speculated that remote implementation would differ from in-person implementation in terms of building rapport and relationships with and between students. One intervention suggested:

I feel like ... the increases in happiness would have been even greater if we were better able to establish better relationships and have them engage more with the content and stuff like we would be able to do in person.

Building rapport with and between students on a videoconference platform influenced the implementation of the remote WBPP. To enhance rapport within groups, all interventionists added relationship building activities to their remote facilitation.

Adapting by Adding Rapport Building Activities

All WBPP groups adapted the intervention protocol to include rapport building activities throughout the remote implementation. One interventionist described, "trying to make time for rapport building as much as possible, even though some of the sessions could be tight." Several interventionists recommended sessions be added to the beginning of the program for the sole purpose of rapport building. For example, one interventionist stated:

I felt like there needed to be more like team building before we jumped into the content. I really felt like by the end of it, we really were a cohesive group, and it was almost like we got to the point where you wanted it to be, and then it was over.

The consensus among interventionists was that adding additional time for and/or activities for rapport building is necessary for enhancing remote implementation.

Adapting the WBPP curriculum to be implemented via videoconference provided opportunities for students to engage in a variety of ways; however, most students' choice to engage via the chat without their cameras on led to interventionist reports of difficulties connecting with and engaging students.

Completing Digital Versions of the WBPP Materials

As part of the co-design process, all WBPP materials were recreated within applications in the Google suite (e.g., Docs, Slides, PDF, Forms) and organized within a Google Classroom that was assigned to students. The fact that the materials were originally created to be completed with pencil and paper rather than in digital form influenced how they were used by students. For example, one interventionist stated, "the materials were adapted so that they were as close to the official [WBPP] materials as possible, and I think that presented some challenges, because [digital delivery] is a whole different way of doing things." According to interventionists' weekly ratings of which materials were used during sessions, interventionists were most likely to introduce their students to digital materials that were explicitly named on the intervention integrity checklist (e.g., What Determines Happiness? handout, Acts of Kindness Record Form, and Optimistic Thinking Form) rather than digital materials that were created for the purpose of simulating strategies that could only occur in-person (i.e., using the whiteboard). Interventionists perceived digital materials with different Google applications to be either more or less effective depending on their preferences and fluency with the materials. For example, Jamboard was cited as a productive tool by one interventionist (e.g., "I think Jamboard is a great tool. It just really does a good job of engaging the participants"), while another interventionist reported not using the Jamboards during their facilitation (e.g., "we had a really hard time with the Jamboards ... some of them didn't go very well").

Interventionists and students' technology literacy may have affected their ability to implement and engage with the WBPP digital materials as intended via the co-design

process. One interventionist described how students' technology literacy influenced their use of the digital materials when they said, "kids needed to feel confident in their tech abilities I think, and if they didn't, they didn't click into things." A caregiver mentioned that managing technology was challenging for their child who was described as "not so savvy" with switching windows and using email. When students did not or minimally engaged with the digital materials, several interventionists reported that they adjusted their leadership approach to be more discussion-based rather than relying on digital materials to facilitate practicing the positive activities. For example, an interventionist stated, "if one out of three kids isn't engaging in something, it didn't ... seem very beneficial for the group. We just did ... either discussing or screen sharing, so we knew that other students could still access [the content]." Several interventionists also indicated that the screen sharing feature was helpful for sharing materials as an alternative for sending students to complete the digital materials within Google Classroom. One interventionist reported, "we didn't always use all the material. Sometimes it felt like we just shared a screen, for example, instead of having everyone go into the Google classroom and open their own individual [document]." Interventionists recommended improving the digital materials by adding more visuals and media (e.g., videos) into the digital materials to make them more engaging, integrating explicit training for how to use the digital materials and technology tools (e.g., Google Classroom, Zoom), and delivering physical materials to students as an alternative to digital materials.

Adapting by Adding Technologies Beyond the Co-Designed WBPP

All interventionist dyads independently elected to add technologies to their facilitation of the WBPP that were beyond the digital version created through the co-

design process. For example, one interventionist dyad reported that incorporating NearPod, an online student engagement platform, into their group facilitation enhanced student engagement. One interventionist described, "I especially enjoyed the NearPods because I think the students might have been more engaged on the days that we used those because they were able to interact with the slides." However, an interventionist from another dyad reported that their attempt to use NearPod was not enjoyed by the students, stating, "we tried NearPod but our group did not like it at all." Students across groups were reported to have different responses to the use of additional technologies.

Despite the use of a videoconference platform and digitization of WBPP materials, several interventionists agreed that because the WBPP was originally developed to be implemented in-person and not remotely, the digital version of the WBPP did not translate seamlessly into the remote learning environment. One interventionist noted:

I just think that this wasn't written to be a remote delivery and if it were to become a remote delivery it would probably look really different at the end of reworking than it looks now. I would only imagine, especially from all the things we've learned about what works and what doesn't work with teaching kids over Zoom.

Engaging Students for Sustained Participation in the Remote WBPP

Specifically related to the remote delivery of the WBPP, stakeholders reported mixed perceptions of student engagement. Various stakeholders suggested that the anonymity and reduced pressure to participate afforded by remote delivery may have encouraged some students who may not have otherwise participated to discuss the difficult topics included in the curriculum (e.g., emotions). One student suggested that not as many students would have been comfortable participating in person because it can be "awkward," whereas during the remote WBPP there was "no pressure" to turn on the camera resulting in "more expression and less awkwardness." Adults also noticed the potential for some students to benefit more from the remote aspect of delivery compared to traditional in-person. A caregiver reported that their child would have been "more resistant" if the program was conducted in person, and an interventionist asserted that students were "able to speak more openly and honestly" because they were "more removed from their peers."

Interventionists also noted that the timing and participation demands of the WBPP sessions may have negatively influenced student engagement and attendance. The time at which the remote WBPP was scheduled within the school day influenced students' attendance in the WBPP. Scheduling the WBPP session during students' flexible ("flex") blocks for asynchronously completing work or seeing teachers created competing demands for students. Interventionists hypothesized that the scheduled time may have contributed to diminished attendance. One interventionist wrote, "if we have this scheduled in better, I think we will have more success in keeping students engaged throughout the program," and a caregiver suggested, "maybe not have it on Wednesdays [during flex block.]" One student described "losing time" when they could have been obtaining additional academic support from classroom teachers in order to participate in the program. Because the WBPP sessions were scheduled during a time when students were not expected to be videoconferencing otherwise, several interventionists indicated that the sessions felt "voluntary" and "extracurricular." Additionally, school-based interventionists reported that preparing for the WBPP session was time-consuming amidst their other job responsibilities. Furthermore, interventionists indicated that the

participation demands required to smoothly facilitate the WBPP sessions via videoconference (e.g., student microphone use) may have been too great. As a result, one interventionist wrote that it "felt like we were talking at them," and another agreed, "it was a little bit like talking to a wall." Many interventionists speculated that engagement, observed via camera use and verbal participation, influenced attendance. One interventionist reported that "it seemed to me that the students who had their cameras on and who were speaking up or just participating got a whole lot more out of it and tended to stay longer within the program." Another expressed frustration with declining attendance, "attendance... was [the] biggest hurdle. We adjusted but it was disappointing when we realized we would only have about three students consistently attend." On average, 48% of participating students attended WBPP sessions each week, including students who attended the make-up sessions (see Table 4.5 for attendance data). Overall, implementation of the WBPP using technology may have contributed to diminished student attendance over the course of the program.

In sum, implementing the remote WBPP using a videoconference platform and digital materials significantly influenced student engagement, rapport with interventionists and peers, and student attendance.

Collaborating through the Research-Practice Partnership

School-based interventionists unanimously indicated that the collaboration between their school team and the research team enhanced the feasibility of remote implementation of the WBPP in their school context, and university-based interventionists unanimously expressed enjoyment in working with the school team. Interventionists discussed (a) participating in a collaborative service-delivery project and

(b) implementing with a co-leader as implementation strategies that enhanced the feasibility of the WBPP.

Building Partnerships to Support Implementation

Alignment between the WBPP and the partner school's pre-existing goals to provide targeted mental health services to students led to the initiation of the researchpractice partnership. The lead counselor explained:

It was really hard to find [a mental health intervention] that both captured the skills that we were trying to go well, fit a timeframe that we could use, and felt it was developmentally appropriate for our age group. So, like we've kept ... trying to find a curriculum that we felt like we could use to be able to, and we'd just get stuck. We just wanted some guidance, you know... And we were going through that right before we started this.

From a school-based interventionist's perspective, embedding the WBPP into the school with the support of an outside research team facilitated its uptake. One interventionist reported, "it's helpful to have someone outside to help ... where it just feels like this is what we're doing together. Because I do feel like we are so busy and scattered, it's important to keep us sort of on track."

School-based and university-based interventionists described partnering with their other team as one of the most enjoyable aspects of their involvement as interventionists. School-based interventionists indicated that the research team brought an outside perspective to their school-based work that was "refreshing" and "enjoyable." A schoolbased interventionists elaborated, "I couldn't have been more impressed with the professionality and the dedication to the work and [the researcher] clearly has an amazing organizational skillset and positivity that she brought but all of them together as a group very inspiring." University-based interventionists described the school-based interventionists as "resourceful" and "enthusiastic." A university-based interventionist explained, "I thought [the school-based interventionists] were all so positive and just seemed like really committed to the idea of like helping their students." Interventionists' positive perceptions of the other group enhanced their enjoyment and commitment for facilitating the intervention. Collaborating with a university-based research team was a process that enabled the school team to integrate the WBPP into its service delivery.

Training and Educating Interventionists

To mirror the procedures of the RCT, the university-based research team provided ongoing implementation support with the goal of enhancing treatment integrity. All interventionists reported that the implementation support provided by the universitybased research team (i.e., WBPP website and weekly leaders' meetings) was beneficial for delivering the intervention within the remote environment. Most interventionists indicated that the website provided quick and easy access to the intervention materials, that it was helpful to use when preparing for sessions, and as one place to document student data (e.g., attendance, engagement). One interventionist wrote about the website, "It was so helpful to have the website where I knew all of the documents and information I'd need for a given session would be readily available." Furthermore, all interventionists reported the weekly leaders' meetings to be "helpful" and most indicated that they enjoyed the meetings. When asked what they liked best about the weekly meetings, interventionists made comments such as "camaraderie of shared experience," "I loved to hear what the other groups did," "sharing reflections with other groups and getting ideas for different ways to implement some of the curriculum in the remote setting," and "previewing for the following week was also incredibly helpful and pushed me to prepare for it." The researcher reported that she also used the leaders' meetings as an opportunity

to model positive psychology techniques such as strength spotting, optimistic thinking, and providing positive feedback. School-based interventionists reported that implementation supports were especially beneficial during COVID because of competing job demands related to remote learning and changes in school structures (e.g., returning to in-person learning). For example, one interventionist reported:

It was nice to be around that energy in such a challenging year with so many people feeling a little beat down. You know they really elevated the vibe. You know, like there's a lot of meetings that we go to where we know it's going to be hard and we're going to be working through some difficult things, and that was always a meeting I could go to every week, knowing I would feel a little more uplifted coming out of it, so I appreciated that.

Multiple interventionists reported that the meetings, which were 30 minutes in length, could be longer (e.g., "I'd say maybe like 45 minutes would have been a better time frame."). When asked about implementation supports that would be helpful to continue, most interventionists identified the website and leaders' meetings as support they would like to maintain in the future.

Furthermore, the researcher role and approach of the research team may have influenced interventionists' implementation of the WBPP and students' motivation to participate in the program. The school-based providers sought guidance from the research team to align the WBPP curriculum with their students' needs. Some school-based interventionists were initially hesitant to adapt the intervention protocols but became more flexible in their facilitation with guidance from the research team. For example, one interventionist described:

Feeling like we had permission to sort of take those moments and like really like go with what felt like we were going to get the students to the point that we needed them to get to, rather than like sticking to each like talking point in the sessions. I think, I think that was a point where there's a little bit of a shift and I don't mean just for me, I mean for like some of the other group leaders, I feel like that was a hard thing for them to get to the point where they felt okay about that. And so to hear that [from the research team] and for it to be reinforced, I think, was really helpful.

In addition, one caregiver indicated that their child continued to participate in the program in part because "he wanted to help" the study because he is a "scientist at heart" and "wants to help other people see patterns." The association between the university-based interventionists and their role as researchers influenced the WBPP implementation.

Implementing Remote WBPP with a Co-Leader

All interventionists expressed enjoyment and benefit regarding working with a coleader from the other organization to facilitate WBPP sessions. Interventionists reported that facilitating with another interventionist was helpful for preparing to deliver the WBPP, managing technology during sessions, and debriefing after the session. For example, one interventionist wrote, "Juggling all of the digital materials and Zoom while facilitating is a lot to do on your own... so having one leader to manage technology while the other is the group leader was really helpful for smoothly using technology." Another interventionist reported:

I really appreciated and enjoyed [working with a co-leader]. I felt that was probably one of the most helpful things for me was to have the co-leader. I felt like bouncing off each other, it was great. In those awkward moments, I felt like the two of us could just sort of banter and talk through and give our own examples. So, I really appreciated having a co-leader, and I think it was super, super helpful for me to have that.

Working with a co-leader to implement the remote WBPP is an implementation support that influenced implementation in what was reported to be a positive way. Interventionists reported the collaboration between researchers and school-based practitioners to be to be enjoyable, beneficial, and helpful successful intervention implementation.

Recognizing the Effectiveness of the Remote WBPP

In post-intervention interviews and written feedback, interventionists, students, and caregivers recognized some degree of effectiveness of the remote WBPP. Several interventionists reported believing that students enhanced their well-being to some extent as a result of the WBPP; however, these reports were qualified with statements about: (a) how improvements would have been larger if the intervention had been conducted in person (e.g., "I think that there were gains though, so like, just not as much as I would have wanted or as possible [if implemented in person]"), (b) that the improvements were difficult to observe in the remote environment (e.g., "because they're like these little dots on screens, so I can't say [about effectiveness] from my own personal experience") and/or (c) improvements were satisfactory considering the pandemic context (e.g., "despite the fact that [students] didn't have cameras on, I still felt that we were able to support their change of thinking during this difficult year.") When asked the important things learned, most students identified a concept or positive activity discussed during the program. For example, one student wrote, "it just helped my mood a lot overall. The optimism unit was the best on for me, I think. That and journaling. I use them a lot now, or at least try to. It's cool to think about the progress I've made." Both caregivers interviewed also reported observing positive behavior change in their children during the remote WBPP. One caregiver reported that they observed an increase in goal setting and grateful thinking in their child as well as a decrease in "meltdowns," and the other caregiver indicated that

their child was "proud" for performing acts of kindness more regularly. All stakeholder groups reported that students increased their happiness to some extent as a result of the intervention.

Effectiveness was also assessed through pre-/post-treatment self-report measures that were identified by the research-practice partnership during the co-design process. A one-tailed *t*-test was conducted to compare the effects of participating in the WBPP (N =13) on self-report measures of cognitive, emotional, and behavior engagement, psychopathology (including internalizing and externalizing symptoms), global and domain-specific life satisfaction, and positive and negative affect. For the 13 students who completed the baseline (M = 1.49, SD = .51) and post-intervention (M = 1.68, SD =.40) measures, results indicated a significant effect of participating in the WBPP on emotional engagement ($t_{12} = -2.01$, p < 0.05). In contrast, cognitive engagement and global life satisfaction did not show significant effects (p < .100) but demonstrated positive trends in the expected direction. No significant effects were found for behavioral engagement, psychopathology, externalizing behaviors, internalizing behaviors, domainspecific life satisfaction, and positive and negative affect. See Table 4.6 for descriptive statistics and Table 4.7 for statistical results.

In addition to student benefit, many school-based interventionists also discussed how the experience of implementing the remote WBPP during the pandemic enhanced their professional skills and confidence to deliver the WBPP in the future. For example, an interventionist stated, "the biggest thing I learned was having a greater understanding of the ins and outs of the sessions and my own ability to deliver them with fidelity and with quality." Another interventionist indicated that they would incorporate positive

psychology principles and activities into their professional practice, writing, "I would 100% take a lot of these into practices as a [school-based mental health provider] in the future." Furthermore, one interventionist suggested that they believed the remote version of the WBPP to be a potentially valuable intervention in the future, stating, "I think there might be like a place for this like the online version somehow like might be a good tool to have like out there as a resource."

Taken all together, results suggest that implementation strategies related to maintaining the core elements of the curriculum, using technology to provide students' access to the intervention, research-practice collaboration, and recognizing intervention effectiveness influence the remote implementation of the WBPP.

Tables

Adaptation	Example
Changed language	Adapted language of student- and caregiver-facing materials to match school-specific language, policies, goals, and logistics. For instance, "parent" was changed to "caregiver" across all intervention materials.
Sent home handouts via email	School-based interventionists emailed caregiver handouts directly to caregivers as PDFs.
Added WBPP sessions	Added sessions prior to and following the ten sessions of WBPP to collect outcome data.
Asynchronous caregiver information session	Researchers and one school-based interventionists recorded the caregiver information session, which was subsequently shared with caregivers via email.
Use of videoconference	Majority of interactions associated with screening, assent, intervention, and outcomes assessment occurred on videoconference.
Co-leader responsibilities	Co-leaders assumed primary responsibility for managing technology during the WBPP sessions.
Digital materials	All WBPP materials were digitized into Google applications (e.g., Google Slides, Google Docs, Google Jamboard, Google Forms) and shared with students within Google Classroom.
Point-based incentive system	Students earned points for homework completion instead of tangible reinforcers.

 Table 4.1

 Summary of Co-Design Adaptations to the WBPP

Table 4.2

Summary of Oniversity and School Roles in Co-Design 1 roce	Summary	of University	and School	Roles in	Co-Design	Process
------------------------------------------------------------	---------	---------------	------------	----------	-----------	---------

University Research Team	School Mental Health Team
Supported goals for collaboration and	Determined goals for collaboration and
intervention implementation.	intervention implementation.
Attended meeting with key school	Invited the university research team to
stakeholders.	meetings with key school stakeholders.
Shared student- and caregiver-facing	Adapted language of student- and caregiver-
materials from larger WBPP RCT (e.g.,	facing materials.
scripts, forms, slides).	
Created all screening, baseline and post-	Provided information about school policies
intervention measures, and WBPP materials	and procedures to inform consent processes
using tools within Google (i.e., Google	for screening and intervention.
Forms, Google Classroom).	
Matched identified student outcomes of	Identified outcomes of interest to be assessed
interests to specific validated measures (e.g.,	at baseline and post-intervention.
SDQ).	
Adapted all materials in accordance with	Maintained Google Classroom and shared
recommendations provided by the school	digital materials with students.
team.	
Maintained school-identified timeline for	Created timeline for project (e.g., for
intervention implementation by suggesting	intervention adaptation, screening, consent,
action steps aligned with timeline.	group formation, sessions) in accordance with
	school calendar, interventionist capacity, and
	scheduling logistics.
Provided scripts and examples of written	Led all student- and caregiver-facing
communications for adaption by school	interactions and communication (e.g.,
providers.	screening, assent/consent, outcomes
	assessment, sessions, handouts) via email and
	videoconference.
Analyzed screening data to establish which	Shared de-identified screening and baseline
students had room for growth in happiness.	and post-intervention data with research team.
Served as co-leaders for intervention	Served as leaders for intervention
implementation and supported the leaders'	implementation and led facilitation.
tacilitation.	
Maintained intervention implementation data	Maintained intervention implementation data
(e.g., session attendance, Google Classroom	(e.g., digital materials use).
engagement, intervention integrity).	
Uppp materials and 1 f	independently prepared for WBPP sessions.
WBPP materials needed for implementation	A 44
Facilitated leaders' meetings.	Attended weekly leaders' meeting.
N 771 1 1 1 1 1 1 1	Mailed participants a gratitude journal.

Note. The university research team refers to the researcher, principal investigator, graduate research assistant, and two graduate students. The school mental health team refers to the associate principal, lead counselor, counselor, school psychologist, and behavior analyst.

Table 4.3Themes Constructed from Qualitative Data

Theme	Description
Maintaining the structure and content of the WBPP curriculum	Sentiments related to the WBPP curriculum, including structure of the intervention, session protocols, positive activities, and intervention elements (e.g., incentive system, homework).
Using technology for remote implementation	Any mention of the use of technology to facilitate the WBPP, including videoconference, digital materials, additional technologies added to the implementation, and student engagement with technology.
Collaborating through the	Sentiments related to how researchers and school-based
partnership	implement the remote WBPP.
Recognizing the effectiveness of the remote WBPP	Any mention of perceived benefit from participating in the remote WBPP for students and interventionists.

Table 4	.4
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Intervention Integrity by Group and Session

	1	<u> </u>	2	1	5	6	7	0	0	10	M	CD
	1	L	3	4	5	0	1	0	9	10	IVI	SD
А	83	100	90	100	100	91	85	83	100	85	91.5	7.6
В	58	100	90	73	100	91	85	92	92	92	86.0	12.8
С	92	100	90	82	100	82	77	62	92	77	84.6	11.8
D	100	100	80	100	n/a	100	n/a	92	100	n/a	96.0	7.7
Make	83	MD	100	91	75	82	77	n/a	n/a	82	87.3ª	7.71ª
Up 1												
Make	83	n/a	90	n/a								
Up 2												
М	83.2	100	90	89.2	93.8	89.2	81.0	82.3	96.0	84.0	89.1	6.3
SD	14.1	0.00	6.3	11.7	12.5	7.5	4.62	14.2	4.6	6.3		

Note: Missing data for Make Up 1 during Session 2. Session 6 for Group D was discontinued after 3 items on the intervention integrity checklists (3/3).

^a Mean and standard deviation for all make up sessions combined.

WBPP	Group	Group	Group	Group	Make	Core Gr	oup Size ^a	Tof	tal
Session	A	B	C	D	Upf		1	Attend	lance ^b
						М	SD	п	%°
Baseline	9	7	4	5	0	6.25	2.22	25	62.5
1	7 ^d	10	5 ^d	7	5	7.25	2.06	34	85
2	7 ^d	7^{d}	5 ^d	4 ^d	9	5.75	1.50	32	80
3	7 ^d	5 ^d	3 ^d	4 ^d	4	4.75	1.71	23	57.5
4	7	4	3 ^d	4 ^d	2	4.5	1.73	20	50
5	6	4	3 ^d	0^{d}	2	3.25	2.50	15	37.5
6	5	3	3	1 ^d	1	3	1.63	13	32.5
7	5 ^{d, e}	2 ^d	2 ^d	0^{d}	7	2.25	2.06	16	40
8	5	4	3	2	0	3.50	1.29	14	35
9	5 ^e	3	4	1	0	3.25	1.71	13	32.5
10	6 ^e	3	3 ^d	0^{d}	2	3	2.45	12	30
Post-	7 ^e	3	2 ^d	0	1	3	2.94	13	32.5
Intervention									
M	6.33	4.58	3.33	2.33	2.75	4.15	1.56	19.17	48
SD	1.23	2.31	0.98	2.39	2.93			7.71	19.2
									7

Table 4.5WBPP Attendance Data by Group and Week

^a Core group size excludes make up session attendance.

^b Total attendance includes make up session attendance.

^c Percentage of eligible students with parental consent and student assent assigned to intervention groups [n=40].

^d At least one student attended the week's make up session.

^e At least one student from Group D attended Group A.

^fCombined across multiple make up sessions, if applicable.

Table 4.6

Descriptive Statistics of Baseline and Post-Intervention Measures

Outcome (Measure)	Baseline ($n =$	Post-Intervention
	33)	(n = 15)
	M (SD)	M (SD)
Behavioral Engagement (EvD-BE)	2.12 (.57)	2.04 (.42)
Emotional Engagement (EvD-EE)	1.53 (.61)	1.68 (.38)
Cognitive Engagement (CES)	3.09 (.75)	3.28 (.79)
Psychopathology (SDQ-Total Problems)	17.39 (6.49)	17.40 (7.13)
Externalizing Behavior (SDQ-Externalizing	8.55 (3.69)	7.80 (3.80)
Problems)		
Internalizing Behavior (SDQ-Internalizing	8.85 (3.47)	9.69 (4.26)
Problems)		
Global Life Satisfaction (SLSS)	3.81 (.59)	3.82 (.98)
Domain-Specific Life satisfaction (BMSLSS)	4.33 (1.08)	4.41 (.65)
Positive Affect (PANAS-PA)	13.48 (3.67)	14.20 (4.40)
Negative Affect (PANAS-NA)	12.55 (4.32)	13.40 (5.26)

Table 4.7

Outcome (Measure)	Baseline	Post-	One-Tailed Paired Sampl		
		Intervention		t-Test	
	M(SD)	M (SD)	<i>t</i> ₁₂	95% CI	р
Behavioral	2.12 (.57)	2.05 (.44)	.570	217361	.290
Engagement (EvD-BE)					
Emotional Engagement	1.49 (.51)	1.68 (.40)	-2.009	385016	.034
(EvD-EE)					
Cognitive Engagement	3.04 (.64)	3.37 (.81)	-1.456	803160	.086
(CES)					
Psychopathology	16.54 (6.67)	17.00 (7.57)	562	-2.251-	.292
(SDQ-Total Problems)				1.328	
Externalizing Behavior	7.69 (3.45)	7.46 (3.87)	.339	-1.253-	.370
(SDQ-Externalizing				1.714	
Problems)					
Internalizing Behavior	8.85 (3.72)	9.54 (4.58)	-1.426	-1.750385	.090
(SDQ-Internalizing					
Problems)					
Global Life	3.69 (.75)	4.05 (.76)	-1.621	849125	.066
Satisfaction (SLSS)					
Domain-Specific Life	4.29 (.92)	4.47 (.66)	-1.107	534174	.145
satisfaction (BMSLSS)					
Positive Affect	13.54 (4.27)	14.31 (4.37)	-1.146	.671693	.137
(PANAS-PA)					
Negative Affect	12.85 (4.72)	12.77 (5.36)	.111	.693-1.587	457
(PANAS-NA)					

One-Tailed Paired Samples t-Test (n = 13)

Note: Thirteen likewise pairs were included in the one-tailed paired samples *t*-test due to missing data at baseline and post-intervention.

CHAPTER 5: DISCUSSION

This case study documented a co-design process to adapt a Tier 2 positive psychology intervention to the remote learning environment and explored the processes that influenced the feasibility of its implementation with middle school students during the COVID-19 pandemic. Data were collected from multiple perspectives (e.g., interventionists, students, and caregivers) and across multiple methods (e.g., one-on-one interviews, written feedback, checklists) to understand the intervention adaptation and processes that influenced the feasibility of implementation. Qualitative data provided insight into stakeholders' experiences with the WBPP, and quantitative data were embedded within these insights to provide a comprehensive picture of the program implementation. Taken together, these data demonstrate that the co-design process was successful for adapting the WBPP for the remote school environment and that key implementation strategies such as maintaining the structure of the WBPP, aligning delivery modality with the school context, and continuous collaboration influenced the feasibility of this implementation of the WBPP.

Summary of Findings

Co-Design Process

This study documented a co-design process that resulted in a contextually specific, remote version of the WBPP. The WBPP was collaboratively adapted for the remote instruction by combining the research team's expert knowledge of the intervention with school-based providers' knowledge of the target population and school environment. This was consistent with the hypothesis that the school team would make recommendations related to intervention delivery, presentation, and logistics, and the

research team would suggest modifications related to intervention content and facilitation.

In response to the delayed involvement in the larger RCT study due to the pandemic, the partner school initiated a research-practice partnership with the universitybased research team to adapt WBPP materials and procedures to the remote school context. The university and school teams developed practical shared goals, aligned with the practical goals documented in a previous study of a co-design model for a schoolbased mental health intervention (Bearman et al., 2020). Bearman and colleagues also documented aspirational (e.g., skill development) goals along with these practical goals (e.g., identify free screening tool). The focus on practicality in the current study may be due to the perceived time-limited nature of the pandemic, with a focus on the current implementation rather than building capacity for future implementation to which aspirational goals would generalize. Consistent with the hypothesis and previous research (e.g., Wolk et al., 2019; Bearman et al., 2020), all adaptations recommended by the school team were structural to enhance the appropriateness of the WBPP for the remote setting, and the co-designed version maintained the core curricular elements of the original WBPP (e.g., sessions protocols, homework). The school team recommended aligning technology platforms for all WBPP elements with those used by the school during the pandemic (e.g., email, Zoom, Google Classroom). For this reason, sessions were conducted via videoconference, materials were digitized, organized, and shared within Google Classroom, and weekly handouts and asynchronous caregiver information sessions were emailed to caregivers. Other suggestions made by the school team aimed to ease the complexity of intervention procedures within remote learning, including the

addition of two sessions to complete the baseline and post-intervention outcome measures, conversion of the incentive systems from tangible-based to points-based, and co-leader management of technology. School providers also suggested matching the language on WBPP materials to their school vernacular. Previous research suggests that intervention adaptations that increase efficiency (e.g., points-based incentive system) and lower cognitive load (e.g., co-leader manages technology), among other goals, enhance intervention useability and thus, intervention-setting fit (Lyon & Koerner, 2016).

Implementation Strategies

In addition to the co-design process, the current study investigated implementation strategies utilized by the university-practice partnership to enhance the feasibility of the co-designed WBPP for the remote learning environment. Several themes emerged from qualitative and quantitative data collected from multiple perspectives (e.g., university- and school-based interventionists, students, and caregivers) using multiple methods (e.g., interviews, checklists, outcome measures, and written feedback). The current study hypothesized that the strategies used to implement the co-designed WBPP in the remote learning environment would enhance feasibility. Results suggested that implementers (a) maintained the structure and content of the curriculum, (b) used technology to embed the WBPP into the school's service delivery model, (c) collaborated through a research-practice partnership, and (d) recognized the effectiveness of the intervention for increasing students' well-being. The hypothesis was partially supported as many of these strategies resulted in enhanced feasibility of the co-designed program, yet other strategies had suboptimal results for making the intervention feasible within the partner school.

Maintaining the Structure and Content of the Curriculum

The structure and content of the WBPP were maintained within the remote learning environment. The structure of the program and sessions allow for flexible delivery (i.e., adaptability). Similar to Suldo et al. (2014), all students identified positive activities that they reported to be enjoyable and beneficial. The current study extends these findings by including interventionists' perceptions of enjoyment and benefit of positive activities, which were similarly positive. The COVID-19 pandemic context influenced students' ability to practice positive activities at home, and some activities (e.g., acts of kindness) were more feasible to implement than others (e.g., gratitude visit). Limited in-person social contact during the pandemic likely decreased the feasibility of practicing certain activities such as the gratitude visit (Loades et al., 2020). Interventionists adapted their approach to implementing core elements of the WBPP (e.g., incentives and homework) in response to student engagement, thus enhancing client appropriateness (Lyons et al., 2014). Even considering the adaptations made during implementation, interventionists delivered the program with moderately high adherence to core program elements. Compared to previous studies of the WBPP delivered in schools (i.e., Suldo et al., 2014, Roth et al., 2017), the remote implementation resulted in lower adherence to the curriculum, suggesting that the core elements of the WBPP maybe implemented more feasibly with additional adaptation for remote delivery.

Embedding Technology into the Program

To tailor the WBPP to the remote learning environment, interventionists utilized a videoconference platform, digitized intervention materials, and added technologies beyond those included during co-design to engage students in the program. These

technologies facilitated the structural and cultural integration of the WBPP into service delivery and instructional practices of the partner school (i.e., emergency remote teaching; Durlak & Dupre, 2008). Interventionists reported that students engaged with technology in ways consistent with school norms (e.g., use of the chat, no camera use). Digitizing the WBPP materials within Google Classroom was reported to be impractical due in part to students' lower-than-expected technology literacy, which resulted in many groups adapting to reduce reliance on digital materials (i.e., promoting adaptability; Cook et al., 2019). While technology used mostly aligned with the school's practices, interventionists reported challenges establishing rapport with and between students and retaining students in the intervention. The high attrition rate observed in the current study stands in contrast to previous WBPP studies in which most students participated in the entirety of the intervention (Suldo et al., 2014; Roth et al., 2017). In line with the critical importance of engagement and relationships to well-being promotion (Seligman, 2011), interventionists incorporated additional engagement and relationship building technologies and activities while maintaining intervention integrity. Students reported enjoying the group environment of the sessions, which suggests high social validity resulting from adapted intervention procedures (Gadke et al., 2021). Using technology to deliver the co-designed WBPP permitted students to access the program during the pandemic despite mixed success with technological adaptations.

<u>Collaboration through a Research-Practice Partnership</u>

While the aspects of technological adaptations enabled and/or hindered the feasibility of the intervention, school- and university-based interventionists agreed that the research-practice partnership greatly enhanced the feasibility of the service-delivery

collaboration. All interventionists expressed alignment between the goals of the WBPP and their values as well as high satisfaction with working as an implementation team, with facilitating the WBPP with a co-leader, and of the implementation supports involved in the research-practice partnership. Research suggests that satisfaction with intervention procedures is essential for implementation success (Gadke et al., 2021). Specifically, the researcher developed and distributed intervention materials via a WBPP website and organized implementation team meetings (referred to as leaders' meetings), both which are strategies included in the School Implementation Strategies, Translating ERIC Resources (SISTER) framework (Cook et al., 2019). Previous research suggests implementation strategies within the SISTER framework enhance intervention feasibility in part through helping implementers prioritize actions that will lead to implementation success (Lyon et al., 2019). This notion was supported by interventionists in the current study who reported that the ability to access all materials needed for preparation in one place, along with the weekly meetings with other WBPP interventionists, were helpful amidst competing job demands that were heightened in the wake of the COVID-19 pandemic. In conjunction with the co-design process, developing stakeholder interrelationships and training and educating stakeholders were perceived as acceptable by interventionists and enhanced the feasibility of the remote implementation during the pandemic.

Recognition of Program Effectiveness

Finally, the current study provides limited support for the effectiveness of remotely implementing a co-designed version of the WBPP during the COVID-19 pandemic. Prior to this study, the effectiveness of an emergency adapted mental health

intervention delivered in a remote setting was unknown. All stakeholder groups reported observing some degree of behavior change (e.g., use of positive activities, improved mood) in conjunction with the WBPP. On student self-report measures of engagement, psychopathology, and subjective well-being, only significant gains in emotional engagement were observed between baseline and post-intervention. Previous studies of the WBPP did not measure engagement through student self-report measures, so this finding is a novel contribution to understanding WBPP's potential to enhance students' emotional engagement. Students also increased their cognitive engagement and global life satisfaction, although these gains did not reach significance. Increases in adolescents' life satisfaction are consistent with previous studies of the WBPP with middle school students (Suldo et al., 2014; Roth et al., 2017), and may be the most relevant indicator of mental health because global life satisfaction may be the most stable component of SWB (Diener et al., 2009). Simultaneous increases in both life satisfaction and engagement may be expected due to the established positive relationship between these two variables (Lewis et al., 2011; Lyons et al., 2013). There were no changes in overall psychopathology, behavioral engagement, and positive and negative affect. Regarding SWB, the increase in life satisfaction and non-effect of positive and negative affect are in line with some studies of SWB (e.g., Suldo et al., 2014; Ng et al., 2015) and in contrast with another which showed significant increases across all components of SWB (Roth et al., 2017). The stability of overall psychopathology, and specifically externalizing behaviors, is consistent with previous WBPP studies (e.g., Suldo et al., 2014; Roth et al., 2017). Furthermore, there was an increase in student-reported internalizing behaviors, albeit non-significant, in the current study. Suldo et al. (2014) observed a significant

increase in internalizing symptoms for both the intervention and control groups. Because the WBPP targets increasing positive indicators of mental health rather than decreasing symptoms of psychopathology, intervention effects may not be strong enough to resist the normative increase in psychopathology experienced by many adolescents (Costello et al., 2011). The current study provided limited support for the potential for the remote WBPP to enhance students' engagement and life satisfaction. Finally, interventionists indicated that delivering the remote WBPP enhanced their skills and confidence to implement the WBPP in the future. In sum, stakeholders reported observations of effectiveness, which were only somewhat supported by quantitative measures of SWB and psychopathology.

Taken together, qualitative and quantitative data analyzed in this retrospective case study suggested that the co-design process and remote delivery of the WBPP can be feasibly implemented in the remote environment of the partner school to an extent, yet further refinement is needed to continue to enhance intervention feasibility in the partner school (Gadke et al., 2021). This is aligned with previous implementation research that highlights the iterative nature of intervention implementation in schools (Cook et al., 2019). Aligned with the field of implementation science, it is well documented that multiple iterations of the intervention and cycles of implementation, including adaptations made from lessons learned, should be expected for feasibility to be maximized (Damschroder et al., 2009; Gadke et al., 2021; Powell et al., 2015).

<u>Limitations</u>

This case study was retroactive and investigated implementation in the real-world setting, which brings about numerous limitations that should be considered when interpreting the results of this study.

First, a small convenience sample of interventionists from only one school was used for the current study. While the inclusion of interventionists perspectives is a strength of this study, the small sample size limits the extent to which the conclusions can be generalized. It should be noted that the number of interventionists included in the study is like that of other co-design and implementation studies (e.g., Bearman et al., 2020) and this type of sampling is commonplace in studies using a case study approach as the goal is not generalizability (e.g., Halliday et al., 2020).

Second, given the researcher's involvement in this study as both a participant and a researcher, interventionists' knowledge that the researcher would be reviewing and analyzing all written feedback and interviews may have influenced the interventionists' responses. However, the variability in interventionists' responses (including those of the researcher) suggest that interventionists felt comfortable candidly sharing their thoughts and experiences to some degree. In addition, the retrospective nature of this case study provides support for the likelihood that insights provided throughout the data collection process were less influenced by social desirability. Furthermore, to minimize bias and reactivity during the interviews, research team members who were not familiar with the interventionists conducted interventionist interviews and told participants that all responses would be de-identified; however, it is possible that interventionists' felt pressure to provide positive statements about their experience. University-based interventionists conducted interviews with students and caregivers which may have

influenced their responses. To reduce reactivity, students and caregivers were also told that their responses would be de-identified, and to reduce bias, two interventionists were present during student interviews to document responses.

Third, due to the timing of the exit interviews, interventionists were asked to retrospectively reflect on the co-design and implementation processes. Interviewees may not have recalled all relevant details and/or reported inaccuracies due to the amount of time that elapsed. Furthermore, only a subset of the interventionist, student, and caregiver populations participated in interviews. It is possible that there was a self-selection bias for interviewees and that those who agreed to be interviewed had more positive perceptions of the program. To address these limitations, data analysis involved triangulating between data sources, which can increase confidence in findings drawn across qualitative and quantitative data (Yin, 2013). A greater number of interventionists, students, and caregivers provided written feedback thus, interview data were triangulated with written feedback and integrity ratings to holistically capture participants' experiences and reduce selection bias.

Fourth, there was a high attrition rate for student participation during the study compared to previous studies of the WBPP. Stressors related to the COVID-19 pandemic, scheduling challenges, and lack of engagement may have led students to stop attending the program. Make up sessions were offered on a weekly basis to provide additional opportunities for students to access the curriculum beyond the weekly group meeting.

Fifth, the study utilized a one-group pretest-posttest design to evaluate student outcomes. Without a control group, it is impossible to rule out alternative hypotheses to explain the changes in students' engagement, psychopathology, and subjective well-

being. The service-delivery orientation of the partnership and retrospective nature of the case study precluded the formation of and comparison to a control group. Furthermore, the high attrition rate resulted in a significant amount of missing data (i.e., students who completed the pre-intervention measures but not the post-intervention measures) that were excluded from the paired samples *t*-test analysis. School-based providers made strong efforts to obtain post-intervention measures from as many students as possible through multiple emails and make up sessions for survey completion. Because shared goals of the research-practice partnership primarily focused on implementation rather than student outcomes, examining the data collected from students most engaged in the program (i.e., those who attended the final session) provided an adequate initial indicator of effectiveness. While the use of a convenience sample, lack of a control group, and missing data limit the generalizability of the findings, the goal of the current study was to evaluate the feasibility of the remote WBPP in the context of the partner school rather than to draw generalizable conclusions. Despite these limitations, this applied and collaborative case study approach has contributed to our understanding of co-design and provided some potential next steps to understand processes that allow for feasible implementation of WBPP in schools.

Implications for Research and Practice

In line with 21st century schooling, and especially in the wake of the COVID-19 pandemic, schools are being urged to place increasing emphasis on well-being promotion (Waters, 2011). Capitalizing on a research-practice partnership to collaboratively adapt and implement the WBPP resulted in several implications and lessons learned for research and practice.

The current study provided support for the feasibility and utility of engaging codesign to enhance intervention-setting fit, particularly for adapting an existing mental health intervention to a novel setting. Previous research suggests that intervention-setting fit is essential for high levels of implementation and that interventions cannot be implemented in schools without some degree of adaption (Harn et al., 2013; Lyon & Bruns, 2019a). Through co-design, the research-practice partnership made surface level changes to the WBPP (e.g., videoconference delivery, digital materials) to integrate the WBPP into the partner school's learning environment. Given the competing demands of school-based mental health providers, it was essential for the research team to make the adaptations discussed during the co-design process. Wolk and colleagues (2019) similarly found it helpful to have the researchers take the lead on making the adaptations recommended in collaboration with the school-based team. Another important lesson was the importance of having one school-based provider who dedicated themselves to serving as the primary contact with the research team, identifying the school's needs to be bridged through the co-design process, marketing the intervention to students and caregivers, and supporting the school-based interventionists throughout the implementation process. Researchers and school teams are encouraged to identify and prepare a champion to lead the co-design process (Cook et al., 2019). Finally, shared goals and outcomes of interest were identified in the co-design process, which were important for meaningfully engaging school interventionists in the implementation and data collection process. Developing a shared understanding of the aims of intervention implementation and importance of evaluating outcomes of interest may have enhanced the buy-in of all collaborators. Maintaining a flexible approach when creating shared
goals, determining adaptations, and planning implementation is also essential (Hickey et al., 2018). Research and school teams are urged to consider developing research-practice partnerships and using co-design to enhance the implementation (i.e., intervention-setting fit) of high-quality mental health interventions in schools.

Maximizing the feasibility of mental health interventions is essential for both school-based research and practice. Feasibility research studies are increasingly common in school psychology as evidenced by the dimensions of feasibility framework proposed by Gadke et al. (2021), yet less is known about how these dimensions can apply in the realm of school-based practice. This case study provides a blueprint for assessing the feasibility of implementing a collaboratively adapted version of a targeted positive psychology intervention in the remote environment during a global pandemic. For example, the rapid transition to emergency remote teaching highlighted the importance of ensuring schools have the capacity to deliver needed mental health interventions in a variety of potential situations, including during a global pandemic. Adaptable interventions are those that can achieve expected outcomes regardless of delivery format and population (Bowen et al., 2009). The adaptability of the remote WBPP curriculum and technologies provided flexibility for interventionists to add supplemental activities in response to student needs. The expert knowledge of the research team was important for helping interventionists to identify appropriate adaptations that maintained the core elements of the curriculum (Bearman et al., 2020). Future research-practice partnerships should consider utilizing expert knowledge to identify components of the intervention that are critical for effectiveness and where adaptations can be made to enhance intervention-setting fit.

The research-practice partnership facilitated the recruitment capacity, practicality, and integration of the remote WBPP into the school's existing service delivery. This case study exemplifies how a small group positive psychology intervention can be practically integrated into an existing MTSS within the remote environment. In collaboration with the research team, the school team remotely conducted universal screening to identify students who had room for growth in happiness. Only free screening measures were selected to reduce costs, which highlights the importance of research team members having knowledge of cost-effective measures and tools to support implementation. The recruitment rate was similar to that of in-person mental health interventions (e.g., Bearman et al., 2020; Roth et al., 2017), but diminishing attendance during the remote WBPP demonstrated the need to focus on recruitment capacity in the future. Researchers and practitioners would benefit from working together to identify strategies to retain students within the local context of the intervention (e.g., through conducting a preference assessment for incentives, adding more activities that strategically encourage multiple types of engagement).

In addition, the ability to provide a Tier 2 well-being promoting intervention during a global pandemic cannot be understated. Using the research-practice partnership to co-design the WBPP to the remote learning environment enabled students with room for growth in happiness to access an evidence-based targeted mental health intervention (i.e., the WBPP), which they may not have been able to access otherwise. Given evidence for a normative decline in SWB during adolescents (Casas & Gonzalez-Carrasco, 2019) and stressors presented during the COVID-19 pandemic (Magson et al., 2021), the provision of the Tier 2 intervention is critical for supporting students' social-emotional

development. Furthermore, school-based practitioners tend to be more uncertain about how to implement Tier 2 interventions compared to universal or intensive supports (Behrens et al., 2013). In the current study, organizing implementation team meetings (i.e., interventionists' meetings) and distributing educational materials through the WBPP website were cited as helpful for university- and school-based interventionists (e.g., Cook et al., 2019). Previous research identified distributing educational materials as one of the most feasible intervention strategies for supporting school-based interventionists (Lyon et al., 2019b). Thus, given the high acceptability of the implementation team meetings in the current study, future research should investigate ways to enhance the feasibility of implementation team meetings to support implementation of Tier 2 mental health interventions in schools.

The current study also brought about important considerations for measuring dimensions of feasibility in school settings. While most intervention studies measure implementation via the structural components of the intervention (e.g., Suldo et al., 2014; Roth et al., 2017), the present study provides support for a multidimensional, multi-modal approach to assessing implementation success (Gadke et al., 2021). In contrast to using adherence (e.g., integrity checklists alone) to assess implementation, the current study drew from multiple data sources (e.g., integrity checklist and interviews) and perspectives (e.g., interventionists and students) to draw conclusions related to implementation. While the remote WBPP was implemented with moderately high adherence to the intervention protocol, reports of low student engagement and retention suggest that implementation was less than ideal. School-based mental health providers and researchers should consider including process dimensions, such as delivery quality and participant

responsiveness, which are best captured as well as multiple data sources (e.g., selfreports, observations, interviews) in their evaluations to capture a comprehensive picture of intervention implementation (Ruiz-Primo, 2006). Furthermore, multi-dimensional, multi-model, multi-perspective assessments may also be critical for evaluating the effectiveness of school-based mental health interventions. Except for emotional engagement, there were no significant effects found for SWB, psychopathology, and engagement in the current study; however, interventionists, students, and caregivers qualitatively reported observing positive behavior change along with participating in the intervention. Collecting information about the potential for student benefit from several sources and perspectives may be especially helpful during initial intervention implementation in schools. This information may inform schools' decisions about future implementation beyond information collected from a small sample using pre- and postintervention self-report measures. More research is needed to provide recommendations specific to school-based mental health intervention for feasibly conducting multidimensional assessments of implementation and effectiveness.

Finally, case study research may be underutilized for advancing understanding of how evidence-based mental health interventions are implemented in schools. While there exists a perception in the research community that conclusions drawn from case studies have limited generalizability, Yin (2013) suggested that case studies provide conceptual generalization such that analyzing interventions in specific settings provide a better understanding of how it can be implemented in the real-world. Contextualizing this understanding within what is already known about the intervention contributes to greater knowledge of how the intervention may or may not be implemented in similar settings

and the processes that underlie its implementation. In conjunction with the present study, recently published case studies of mental health interventions have added to the field's understanding of implementation processes (e.g., Halliday, 2020; Hickey, 2018). Researchers are encouraged to build academic partnerships with school mental health teams to support the case study design, data collection and analysis, and implementation support efforts (Cook et al., 2019). In addition, the retrospective nature of the current case study suggests that by analyzing existing data from an intervention implementation, particularly ones involving a research-practice partnership, school-based providers can gain valuable insight into implementation processes in their settings and further contribute to the school-based mental health literature. Case study research holds potential to enhance researchers' and practitioners' understanding of the processes that contribute to successful intervention implementation in real-world settings, which may narrow the implementation gap (Sanetti & Collier-Meek, 2019).

In sum, key practice implications include utilizing research-practice partnerships to adapt interventions to the structural and cultural contexts of schools, capitalizing on researchers' expert knowledge of mental health interventions in combination with practitioners' knowledge of the local context, and remaining flexible with intervention adaptation. Future research will benefit from further investigation of multidimensional assessments of intervention implementation and effectiveness as well as methods to enhance the feasibility of implementation support strategies (e.g., implementation team meetings).

Conclusion

This case study details the co-design process and implementation of a Tier 2 positive psychology intervention implemented in the remote learning environment of a middle school during COVID-19. Lessons learned from this study suggest that research-practice partnerships can be critical for increasing the feasibility of intervention implementation in local school contexts, especially during novel situations such as a global pandemic. Using a co-design process, researchers can bridge their expertise of the mental health interventions with the school practitioners' expert knowledge of their school community to enhance implementation success. Research-practice partnerships can increase feasibility within school settings by using implementation strategies such as adapting and tailoring the intervention to the local context (i.e., remote delivery), maintaining the core elements of the evidence-based intervention, training and educating interventionists, and recognizing the benefit of implementation efforts. Together, this study highlights the potential for research-practice partnerships to successfully translate mental health interventions into local school settings for maximizing student success.

APPENDIX A

LEADER/CO-LEADER BACKGROUND AND EXPEREINCES

The team at UMass requests that all WBPP leaders and co-leaders complete this short survey to provide information about your background, experiences, and familiarity with technology and group counseling. This information will help us plan to best support this team throughout during WBPP remote implementation. Thank you so much for your time!!

- 1. Name
- 2. Affiliation
 - a. JFK
 - b. UMass Amherst
- 3. Date of Birth
- 4. Position
 - a. Counselor
 - b. School Psychologist
 - c. School Psychology Graduate Student
 - d. School Psychology Faculty
- 5. Highest degree
 - a. Bachelor's degree
 - b. Master's degree
 - c. Doctoral degree
- 6. Please specify the degree type and field of your highest degree

7. Number of years of experience in profession (e.g. total number of years as school psych)

8. Number of years of experience in current role (e.g., at JFK or UMass)

9. Rate your experience using the following technologies. Please check all that apply. (0= no experience for personal or professional use, 1=experience for personal use, 2=some experience for professional use, 3=extensive experience for professional use)

- a. Smart phone
- b. Laptop
- c. Tablet
- d. Zoom
- e. Google Classroom
- f. Sending badges through Google Classroom
- g. Google Drive
- h. Google Form
- i. Google Docs
- j. Google Sheets
- k. Google Jamboard
- 1. Google Slides
- m. Google Sites

10. What questions and concerns do you have about the remote implementation of a small group counseling intervention?

11. Rate your previous experience with group counseling. Please check all that apply.

- a. No experience
- b. Observer role
- c. Co-facilitator role (some experience)
- d. Co-facilitator role (extensive experience
- e. Lead facilitator role (some experience)
- f. Lead facilitator role (extensive experience)
- 12. What types of groups have you led in the past?

13. What are your reasons for being personally invested in (i.e. giving your time and energy) the Well-Being Promotion Program?

14. How prepared do you feel to lead WBPP? (*I*=not prepared at all; 5=very prepared)

15. How do you feel about working with a co-leader? What questions do you have about the leader/co-leader model?

16. Is there anything else you would like to share about you as a group leader?

APPENDIX B

INTERVENTIONIST CHECKLIST

- 1. How was the technology (e.g. Classroom, Site, Zoom) and adapted materials helpful in this session?
- 2. Reflect on the content delivery of this session (e.g. FOI, key elements). What went well?
- 3. Please reflect on group process (e.g. relational dynamic in group, leader/co-leader dynamic).
- 4. What suggestions do you have for the future (e.g. remote adaption, content and/or process)?

APPENDIX C

INTERVENTIONIST FEEDBACK FORM

Thank you for your leadership in implementing the first-ever Zoom-delivery of the WBPP! We would appreciate your feedback on the program activities, materials, and remote delivery in part so that we can improve the program before using it next year (in person!) at JFK and potentially remotely with other school mental health providers. There are no right or wrong answers – we would like your honest opinions. Thank you for your time in completing this survey! We appreciate you!

- 1. What did you like best about the WBPP curriculum?
- 2. What did you like least about the WBPP curriculum?
- 3. What did you like best about the remote adaptation of the WBPP?
- 4. What did you like least about the remote adaptation of the WBPPP?
- 5. What are some of the most important things you learned as a leader for the program?
- 6. What feedback do you have about digital materials (i.e., Google Classroom, Google Drive (Slides, Forms, Docs, PDFs))?
- 7. What feedback do you have about facilitating the WBPP on Zoom? What advice would you give to future interventionists delivering WBPP via Zoom?
- 8. What feedback do you have about the implementation support materials (i.e., WBPP website, weekly reflections/reminders)?
- 9. Which activities were the most beneficial/enjoyable and least beneficial/enjoyable for your students? Please check all that apply.
 - a. Me at My Best
 - b. Gratitude Journals
 - c. Gratitude Visit
 - d. Acts of Kindness
 - e. New Uses of Signature Strengths
 - f. Savoring
 - g. Optimistic Thinking
 - h. Best Possible Self in the Future
- 10. Which activities were most successful in the remote environment and why?
- 11. Which activities were least successful in the remote environment and why?
- 12. Which activities were the most beneficial/enjoyable and least beneficial/enjoyable for you as a leader? Please check all that apply.
 - you as a leader? Flease clied
 - a. Me at My Best
 - b. Gratitude Journals
 - c. Gratitude Visit
 - d. Acts of Kindness
 - e. New Uses of Signature Strengths
 - f. Savoring
 - g. Optimistic Thinking

- h. Best Possible Self in the Future
- i. Active Constructive Responding
- 13. Why did you select these activities as most and least beneficial/enjoyable for you?
- 14. Which activities that you learned (first in the Wellness Journal, then when leading groups) are you most likely to continue to do on your own and why? Which activities are you least likely to continue to do on your own and why?
- 15. Think about the weekly leaders' meetings between sessions. What did you like the best/find the most beneficial about the leaders' meetings?
- 16. What did you like the least/find least beneficial about the leaders' meetings?
- 17. Thinking forward to next year, what supports would be you find to be most beneficial for preparing to implement WBPP? Think about supports that would be helpful prior to the start of the intervention (potentially summer/early school year) and throughout the 10-weeks (i.e. summer booster training, weekly leaders meeting, individual coaching sessions, weekly emails, website, etc.)?
- 18. What are some lessons learned from this years' WBPP that you will keep in mind for next year? Think back to screening and recruitment, communication with caregivers, session facilitation, building relationships and group dynamics, engagement strategies, working with a co-leader, etc.
- 19. Thinking forward to next year, what concerns or worries do you have about implementing the WBPP at JFK? How could UMass and JFK work together to address these concerns?
- 20. What other suggestions do you have to improve the program? Is there anything else that you would like to share?
- 21. Would you be willing to participate in an interview to provide additional insight into and feedback about your experience as a leader implementing the first-ever remote adaptation of the Well-Being Promotion Program?

APPENDIX D

INTERVENTIONIST EXIT INTERVIEW PROTOCOL

Instructions

• Share purpose of discussion:

• We're interested in learning more about your experiences leading the Well-Being Promotion Program remotely this year. We want your feedback on the program activities and materials, in part so that we can improve the program before using it with other school mental health providers or remotely in the future. There are no right or wrong answers – we want your honest opinions.

• Your specific responses will not be shared. We are recording this session only as a tool to capture all information. After what was said during this session has been typed, you will <u>not</u> be identified by name.

• You have previously given your written consent/assent to take part in this discussion. As a reminder, you are free to stop participating at any point.

School Mental Health Provider Discussion

• Let's start with your overall or big picture thoughts on the remote delivery of the Well-Being Promotion Program, then I will ask some more specific questions. As a reminder, here's an overview of the topics and activities covered throughout the 10 weeks of the Well-Being Promotion Program.

- [show visual reminder of 10 week schedule of topics and activities in the WBPP]
- 1. What did you like the best about the program? Least?
- 2. Describe your experience using technology to deliver WBPP.
- 3. Thank you! What feedback do you have about the program in terms of...
 - A. Interacting with the materials digitally?
 - Digital materials include digital handouts (PDFs), worksheets in Google Slides, discussions using Google Jamboard, blank sheets of paper using Google Docs
- B. Facilitating the group via Zoom?
- C. At home practice (i.e., homework)?
 - Assigning the homework via Google Classroom, checking at-home practice, ensuring that the student complete the at-home practice via Google Classroom
- *D. Caregiver component?*
 - Sent weekly emails to caregivers with the session handout, asynchronous caregiver information session was emailed to them prior to WBPP
- *E. Frequency and timing of group meetings?*
- F. Pace of the sessions? [Were parts too rushed? Too slow? Or just about right?]
- *G. Working with a co-leader weekly?*

PROBE: Is there anything you would change about the program delivery?

4. Tell us about working with the UMass team this past fall (Oct. - Dec.) to adapt the WBPP to be delivered in the remote learning context.

• Follow Up: How did the planning meetings (i.e., SEL Team meetings in the fall, WBPP leaders' meetings in November and December) help to adapt the WBPP JFK's context?

- *PROBE: Related to curriculum and content*
- PROBE: Related to remote implementation

5. What are some of the most important things you learned as a leader for the program?

• **PROBE**: Do you think your students increased their happiness? Why/why not? What role do you think you played in this change, if any? If yes, how?

6. Which activities were the most beneficial/enjoyable for your students? For you as a leader? Why?

• Follow-Up: Which activities were the least beneficial/enjoyable for your students? For you as a leader? Why?

7. Which activities that you learned (first in the Wellness Journal, then when leading your students in groups) are you <u>most</u> likely to continue to do on your own? Why?

• Follow-Up: *Which activities are you the <u>least</u> likely to continue on your own? Why?*

- Follow-Up: *Which activities are you most and least likely to use in your future practice with other students?*
- 8. *Given the remote delivery, describe the dynamics within your group.*
 - *PROBE: How connected did you feel to the students in your group?*
 - *PROBE:* How connected do you think the students felt to each other?

• *PROBE: How connected do you think your students felt to the group as a whole?*

• *PROBE:* Did you incorporate any additional rapport building activities beyond activities specified in the WBPP manual? If so, please describe.

• *PROBE: What strategies did you use to boost engagement? How well did these strategies work?*

9. How prepared did you feel to deliver the Well-Being Promotion Program sessions remotely?

- *PROBE: What additional training would have helped you feel prepared for remote delivery?*
- *PROBE: In what ways did you use the interventionist website?*
- PROBE: How did you prepare individually?
- *PROBE: How did you prepare with your co-leader?*

10. Think back to the summer training to prepare you for Session 1.

• What did you like best/find most beneficial about the summer training for interventionists?

• What did you like least/find least helpful about the summer training?

• Fingers crossed, we're planning to provide the Well-Being Promotion Program to JFK students in person in fall 2021! What types of training would be helpful to prepare for in person delivery before the new school year begins? *What types of training would be helpful before the fall*?

11. Now thinking back to this year's work, let's think about the weekly leaders' meetings between sessions.

- What did you like best/find most beneficial about the leaders' meetings between sessions?
- What did you like least/find least beneficial about the leaders' meetings between sessions?

12. How did the leader/co-leader checklist support your growth as a leader in delivering the WBPP in general and for the remote implementation?

- **PROBE**: *How did the checklist and shared reflection (i.e., Emily's Thursday emails) help support the delivery of content?*
- **PROBE**: *How did the checklist and shared reflection help support the group facilitation and student engagement?*
- **PROBE**: What suggestions do you have to improve this aspect of support?

13. Did you feel comfortable discussing your successes and challenges in the leaders' meetings? Why or why not?

14. What other suggestions do you have to improve the program, in terms of professional development or delivery of the group?

[Summarize responses] is that correct? Please take a moment to think if there is anything else you might want to add.

APPENDIX E

STUDENT FEEDBACK FORM

Congratulations on completing the Well-Being Promotion Program! Please complete this survey to provide feedback on your experience with this group and to help us plan for next year. The survey will ask you questions about your experiences with the group as well as questions to check in on how you are doing with school, your behaviors and your feelings right now. Thank you for your feedback!

- 1. What do you feel are some of the most important things you learned in the program?
- 2. What did you like best about the program?
- 3. What did you like least about the program?
- 4. Which activities that you learned in the meetings are you likely to continue to do on your own? You can choose more than one option.
 - a. You at your best writing
 - b. Gratitude journal
 - c. Gratitude visit
 - d. Acts of kindness
 - e. Savoring
 - f. Using my signature strengths in new ways
 - g. Optimistic thinking
 - h. Best possible self in the future writing
 - i. None
- 5. What suggestions do you have to improve the program?
- 6. How comfortable did you feel sharing with the group over Zoom? (1 = Not comfortable at all; 10 = Very comfortable)
- 7. How did you prefer to participate in the group (chat, with your voice, NearPod) and why?
- 8. What feedback do you have about the at-home practice? How could we encourage next year's students to complete the at-home practice?
- 9. Would you recommend this program to other JFK students for next year? Why or why not?
- 10. Any additional comments?

APPENDIX F

STUDENT EXIT INTERVIEW PROTOCOL

Instructions

• Share purpose of discussion:

• We're interested in learning more about your experiences in the Well-Being Promotion Program. We want your feedback on the program activities and materials, in part so that we can improve the program before using it with other students. There are no right or wrong answers – we want your honest opinions.

• Your specific responses will not be shared. [Note taker] is here to take notes on what you share with us so we can use it to make changes for the future.

• Your participation in this interview is voluntary and you are free to stop at any time.

Student Discussion

• Let's start with your overall or big picture thoughts on the Well-Being Promotion Program, then I will ask some more specific questions. As a reminder, here's an overview of the topics and activities covered throughout the 10 weeks of the Well-Being Promotion Program.

- [show visual reminder of 10 week schedule of topics and activities in the WBPP]
- 1. What did you like the best about the program? Least?
- 2. Thank you! What feedback do you have about the program in terms of...

A. Google Classroom (digital handouts, Google Slide worksheets)?

- *PROBE: How did you use the Google Classroom?*
- B. Meeting with the group on Zoom?

• Follow Up: Often, had cameras off – what would make you feel more comfortable? What would need to be different for you to feel comfortable participating with audio or video?

- C. At-home practice?
 - Follow Up: Did you use the Google Classroom between sessions?
- D. Points system?
 - Follow Up: What incentives (if any) would you have wanted in response to at-home practice completion?

E. Attempts to involving your caregivers, for instance through the weekly emails with handouts?

F. Frequency and timing of weekly group meetings?

G. Pace of the weekly meetings? (e.g., were parts too rushed? Too slow? Or just about right?

H. Did you attend a make up session on Friday? If so, what feedback do you have about the make up sessions?

• **PROBE**: *Is there anything you would change about the program delivery*?

- 3. What are some of the most important things you learned in the program?
 - PROBE: Do you think you can increase/change your happiness? Why/why not?
- 4. Which activities were the most beneficial/enjoyable? Why?
 - Follow-Up: Which activities were the least beneficial/enjoyable? Why?

5. Which activities that you learned in the meetings are you <u>most</u> likely to continue to do on your own? Why?

• Follow-Up: *Which activities are you the <u>least</u> likely to continue on your own? Why?*

6. How did participating in WBPP from home pose challenges to your participation?

• *PROBE: Did you have a private space to call in from?*

• *PROBE: How comfortable were you sharing out loud at home?*

7. Tell us about the dynamics in your group. How connected did you feel you to the group leaders? Did you feel that the leaders understood you?

• Follow Up: What aspects of the group helped you feel more engaged? What parts led to you feel less engaged in the group?

8. Did you have any issues with the technology? If so, how did you handle the problems?

• Follow Up: If you could redo this program, would you have preferred printed materials? Materials emailed to you? Google Classroom?

9. How do you think your experience with WBPP would have been different if the program was held in person? If you were to do WBPP in person, how might that experience be better or worse?

10. How would you explain this program to your friends?

• Follow-Up: Would you recommend this program to your friends?

- 11. What changes would you make to the program?
 - Follow-up: *What suggestions do you have to improve the program for next year?*

[Summarize responses] is that correct? Please take a moment to think if there is anything else you might want to add.

[•] Follow Up: How comfortable did you feel sharing your honest thoughts and feelings?

APPENDIX G

CAREGIVER FEEDBACK FORM

Your child participated this year in the first ever Zoom-based Well-Being Promotion Program. JFK will implement this program again next year as part of the school day. Your feedback is much appreciated to improve the experience for future students and families. Thank you for your time!

- 1. What did you like best about the Well-Being Promotion Program?
- 2. What did you like least about the Well-Being Promotion Program?

3. Which Well-Being Promotion Program activities, if any, did you notice your child engage in this month? Please check all that apply.

- a. You at your best writing
- b. Gratitude journal
- c. Gratitude visit
- d. Acts of kindness
- e. Savoring
- f. Using my signature strengths in new ways
- g. Optimistic thinking
- h. Best possible self in the future writing
- i. None
- j. Other

4. In what ways did you notice your child engage in positive activities? Please provide any examples.

5. What suggestions do you have to improve the communication about the Well-Being Promotion Program?

6. What suggestions do you have to encourage student attendance and participation in the Well-Being Promotion Program?

7. What suggestions do you have to encourage caregivers to provide permission for their child to participate in the Well-Being Promotion Program?

8. Any additional thoughts, feedback, or information?

APPENDIX H

CAREGIVER EXIT INTERVIEW PROTOCOL

Instructions

• Share purpose of discussion:

• We're interested in learning more about your experiences and your child's experience with participating in the Well-Being Promotion Program this year. We want your feedback on the program, in part so that we can improve the program before using it with other schools or other students remotely in the future. There are no right or wrong answers – we want your honest opinions.

• Your specific responses will not be shared and I will be taking a few notes during this interview.

Questions for Caregivers

1. What did you like the best about the Well-Being Promotion Program? Least?

2. Describe your observations of your child using the Well-Being Promotion Program strategies, such as activities to increase gratitude, kindness, hope and optimism, and use of character strengths.

• *PROBE: How did your child's behavior change during their participation in the Well-Being Promotion program?*

3. What did you find most helpful about the communication with the group leader? Least helpful?

• *PROBE: What feedback do you have about the weekly caregiver emails?*

• *PROBE: What feedback do you have about the weekly handouts attached to those emails?*

4. Did you watch the caregiver information session video emailed to you in December? If so, what feedback do you have about the information session?
5. How would you describe the Well-Being Promotion Program to other caregivers?

6. Describe your child's experience using technology to participate in the *Well-Being Promotion Program*.

- *PROBE:* How did participating from home pose any challenges?
- 7. Is there any other feedback you might want to share with us? Thank you.

APPENDIX I

EXAMPLE OF AN INTERVENTION INTEGRITY CHECKLIST FROM

SESSION 1

Completed? *		
	Yes	Νο
You at your best activity: students write their personal stories.	0	0
Students share their you at your best stories.	0	0
Discuss strengths students' displayed in their stories.	0	0
Discuss perceived importance of happiness.	0	0
Discuss purpose of group (to increase students' happiness).	0	0
Discuss what determines happiness.	0	0
Comprehension check: Overview of Program Activities handout (complete What Determines Happiness? and Purpose of Group).	0	0
Discuss confidentiality.	0	0
Comprehension check: definition of confidentiality.	0	0
Develop rules for appropriate behavior in group.	0	0
Discuss incentives available for completing group homework.	0	0
Assign homework (read and reflect on you at your best stories).	0	0

APPENDIX J

CO-DESIGN PROCESS

Date	Roles of Persons Involved	Type of Contact	Contact Purpose	Contact Outcome
9/21/20	PI, PC, AP	Email from PI	To brainstorm opportunities to stay connected prior to in-person implementation; to propose planning practice sessions for school-based interventionists	PI, PC, and AP will meet on 10/14/20
10/14/20	PI, PC, AP	Videoconference	To plan for collaboration for universal screening; to discuss possible support for school-based WBPP interventionists prior to in- person implementation	University-based research team will partner with school mental health team to conduct universal mental health screening; PI and PC invited to school mental health team meetings to discuss WBPP supports in preparation for in-person WBPP implementation
10/15/20	PI, PC, AP, SP, LC	Email from PC	To invite a subgroup of school-based mental health staff identified by the AP to plan universal screening	PI, PC, AP, SP, and LC will meet on 10/29/20
10/29/20	PI, PC, AP, SP, LC	Videoconference	To discuss collaboration to conduct universal mental health screening	Team will adapt the WBPP to be implemented remotely with 8 th grade students; school staff inquired about providing PPIs to teachers
11/3/20	PI, PC, AP, SP, LC	Email from PC	To inform school-based team of research team's decision to initiate co-design process in line with the goals of the larger study	Formal initiation of co-design process to adapt the WBPP to the remote learning environment

			To request that school staff refrain from	
			providing PPIs for teachers	
11/3/20	LC, PI, PC	Email from LC	To invite PI/PC to school mental health team meetings to co-design the remote pilot of WBPP	PI/PC will attend mental health team meeting on 11/10/20
11/10/20	PI, PC, MHT	Videoconference	To introduce the WBPP pilot to MHT; To identify subgroup of MHT interested in co-designing the pilot	Created shared goal of remote WBPP implementation during the 2020- 2021 school year; Identified MHT subgroup to co-design WBPP to be implemented remotely
11/11/20	PI, PC, AP, SP, LC, C, T	Email from PC	To identify meeting to co-design screening and recruitment processes	Subgroup will meet on 11/16/20
11/12/20	PI, PC, AP, SP, LC, C, T	Document sharing from PC	To share screening and recruitment materials from RCT to begin co-design process	No response
11/13/20	PI, PC, AP, SP, LC, C, T	Email from AP	To invite subgroup to videoconference on 11/16/20	N/A
11/15/20	PI, PC, AP, SP, LC, C, T	Email from SP	To share adapted version of caregiver consent for screening via Google Docs	No additional edits were made prior to the subgroup meeting on 11/16/20
11/16/20	PI, PC, AP, SP, C	Videoconference	To co-design the consent for screening and intervention processes; to plan logistics of remote WBPP implementation	Collaboratively edited waiver of informed consent form to match existing school practices; Waiver of informed consent was reviewed and approved by AP, and was sent to the school's translator for Spanish translation

11/17/20	PC. MHT	Videoconference	To co-design screening and recruitment	MHT expressed interest in collecting student
	,		procedures and logistics:	outcomes data pre- and post-
			To identify shared goals for outcomes	intervention:
			assessment and potential measures	MHT expressed strong interest in social
				validity measures for students.
				interventionists and caregivers:
				Pre- and post-WBPP sessions will be added
				to the schedule to accommodate pre-
				/post-intervention data collection
				using Google Forms:
				SP will meet with qualifying students
				individually to obtain student
				assent
11/17/20	PI. PC.	Email from PC	To share PC-adapted Teacher	LC added topics to the agenda for the
	AP, SP,		Information handout;	department meeting on 11/24/20
	LC, C, T		to request review of the PC-adapted assent	1 0
			meeting script;	
			to share screening survey script from RCT	
			for adaption;	
			to share proposed timeline of action steps	
			leading to Session 0;	
			to share proposed measures for pre-/post-	
			intervention data collection based on	
			MHT's outcomes of interest	
11/19/20	PI, PC,	Email from PI	To suggest language for the screening	Suggested language was discussed at a
	AP, SP,		survey script;	department meeting on 11/20/20
	LC, C, T		to start discussion about the timing of Session	
			0 prior to school vacation	
11/20/20	PI, PC,	Email from LC	To confirm screening survey script that was	Proposed to discuss implementation logistics
	AP, SP,		discussed at the department meeting;	at MHT meeting on 11/24/20
	LC, C, T			_

			-	·
			to provide contextual information for	
			scheduling	
11/23/20	PC, LC	Email from PC	To suggest additions to MHT agenda for 11/24/20, including PC-adapted parent consent form, creating a consent for intervention form, additional measures to meet assessment goals, and provision of ongoing support during WBPP	LC added the proposed items to the agenda for MHT meeting on 11/24/20
11/24/20	PC, MHT	Videoconference	To address proposed agenda items (see 11/23/20)	MHT finalized logistics for screening and recruitment, including sending consent forms to caregivers via Google Form, logistics of screening (when, where, who, how), and planning for student assent meetings; LC will lead screening and ensure that students are completing the Google Form survey correctly; MHT discussed suggested measures to address assessment goals but did not reach consensus;
12/1/20	PC, MHT	Videoconference	To review the PC-created Google Form to gain consensus about measures to be	LC informed MHT that two students did not waive consent for screening;
			included in pre-/post-assessment	WHI I reached consensus about measures to
				be included;
				LC made a copy of the survey to obtain
				ownersnip of the Google Form and
				will de-identify the data for analysis
				by the PI/PC;

				confirmed logistics for screening survey administration, including method of videoconference for make-ups; LC will create WBPP groups once consent/assent procedures conclude; Discussion incentives for homework completion
12/1/20	PI, PC, LC	Email from PC	To edit pre-intervention Google Form; to offer support during screening administration	LC corrected errors within the pre- intervention Google Form
12/2/20	PI, PC, LC, AP, SP, C	Email from SP	To schedule meeting to discuss screening results and confirm recruitment procedures	Subgroup will meet on 12/7/20
12/4/20	PC, LC	Document sharing	To share de-identified screening data via Google Sheet	PC brought cleaned screening data to university research team for analysis
12/4/20	PI, PI, PI, PC	Videoconference	To analyze screening data and determine cut scores to identify students with room for growth in happiness	Identified 76 students who did not endorse life satisfaction but were not satisfied and 47 students who were more dissatisfied than satisfied; planned to present both cut scores to MHT to collaboratively determine qualifying students
12/7/20	PI, PC, AP, LC, SP, CL, C	Videoconference	To debrief on screening process; to identify which students qualified for intervention; to confirm student assent and caregiver consent procedures;	LC reported that all but 15 students completed the screening; LC planned to meet with students individually via videoconference to discuss student assent;

			to consider logistics for remote implementation (e.g., time, digital platforms); to discuss logistics of ongoing implementation support; to propose using Google Classroom to share digital materials	opted to invite students who are not satisfied and who are dissatisfied to participate in WBPP; planned to hold WBPP sessions during Flex block on Wednesdays; planned to use Google Classroom as a platform for sharing materials; planned to meet for leaders' meetings in the half hour prior to MHT meetings
12/8/20	PC, MHT	Videoconference	To select a videoconferencing platform; to brainstorm incentives; to plan for the parent information session	PC recommended that LC email consent forms to caregivers; chose to record asynchronous parent information session with the LC and PI to be emailed to caregivers; Zoom selected as videoconference platform; scheduled WBPP leaders' meeting for following week; planned to invite trained school psychology graduate students to serve as co- leaders
12/9/20	PI, PC	Email from PI	To confirm changes PC made to the existing slides for the parent information session	PC confirmed modifications to the slides to make the presentation school specific
12/9/20	PC, CL, CL	Email from PC	To recruit school psychology graduate students to serve as co-leaders for remote WBPP	Recruited two school psychology graduate students as co-leaders
12/10/20	P <mark>I, PC,</mark> LC	Videoconference	To record an adapted version of the parent information session	Recorded the parent information session via Zoom

12/14/20	PC, LC, C,	Videoconference	To provide update on consent process:	Decided that LC will create groups based on
_	C, SP, CL,		To create small groups of students	school "pods";
	CL, CL		with consent;	Planned to meet as a large group of students
	,		To plan for Session 0	and interventionists for Session 0
			1	on 12/16;
				Planned logistics for Session 0 that LC will email to students:
				Reminded CLs to complete CORI
12/14/20	PC LC	Videoconference	To confirm pre-intervention measures and	Discussed and confirmed pre-intervention
12/11/20	10, 20	Videocomercinee	Google Form:	measures survey.
			to transfer ownership of Google Form from	Transferred ownership of form from PC
			PC to LC	to LC
12/14/20	PC. LC.	Email from PC	To share drafted email of the parent	N/A
_	PI		information session, referenced	
			handouts, and YouTube video of	
			recording with LC:	
			to request to review the school's procedures	
			for risk assessments	
12/14/20	PC, PI,	Email from PC	To share access to the WBPP interventionist	C requested an earlier leaders' meeting due to
	LC, C, C,		website, Google Drive;	logistical considerations;
	SP, CL,		to invite the co-leaders to the MHT team	Confirmed agenda for Session 0
	CL, CL		meeting on 12/15;	
			To inquire about the possibility of meeting for	
			leaders' meetings on Tuesdays;	
			To request completion of a Google Form	
			inquiring about personal and	
			professional background related to	
			group counseling;	
			To outline previously discussed agenda for	
			Session 0;	

			To request that all interventionists complete a Google Form following each WBPP session; To announce co-leader pairings; To share the recorded parent information session	
12/16/20	PC, PI, LC, C, C, SP, CL, CL, CL	Email from PC	To request interventionists complete the Google Form for the weekly checklist and background survey	SP reported that did not have permission to access form; PC changed security permissions
12/17/20	PI, PC, AP	Email from PI	To request PC be given within district security access for Google	AP contacted district IT about granting access; No security access was ultimately granted
1/4/21	SP, PC, C, LC, C	Email from SP	To share a slideshow SP created to accompany Session 1; To inquire if slides would be provided by PC for each session; To request to discuss slides at leaders' meeting	PC indicated that groups could choose to create slideshows, but an official slide deck would not be created; Planned to discuss at leaders' meeting
1/4/21	PC, LC	Videoconference	To discuss group formation	BA replaced C as a leader; Groups were formed; Planned for school-based leaders to email handout to caregivers; Planned for leaders to create and email individual Zoom links
1/5/21	SP, PC	Email from SP	To inquire how to use Google Slides handouts	PC explained how to type into Slides
1/5/21	BA, LC, PC	Email from BA	To ask about copying assignments in Google Classroom and sending calendar invites to students	LC changed settings in the Google Classroom and indicated that some

				students use Google Calendar but not all
1/5/21	PC, SP, C, BA, LC, CL, CL, CL	Videoconference	To preview materials for Session 1	Prepared for Session 1
1/8/21	PC, SP, C, BA, LC, CL, CL, CL	Videoconference	To reflect on previous session; To exchange strategies and suggestions; To preview the next session	(no notes)
1/7/21	SP, PC, LC, BA, C	Email from SP	To suggest adding NearPod into sessions to boost engagement	PC responded to the group
1/11/21	LC, PI, PC	Document sharing	To share de-identified screening data	PC summarized data and identified students who may benefit from additional support beyond WBPP
1/14/21	PC, PI, LC	Email from LC	To inquire about including school record data (e.g., attendance, grades) in analysis	PI confirmed that these data could be included in analysis
1/15/21	PC, SP, C, BA, LC, CL, CL, CL	Videoconference	To reflect on previous session; To exchange strategies and suggestions; To preview the next session	Exchanged engagement strategies (e.g., slide deck, playing music, ice breakers); Discussed options for incentives; PC asked for suggestions related to written materials; Previewed Session 3
1/21/21	PC, SP, C, BA, LC, CL	Email from SP	To share a NearPod presentation for Session 4	N/A
1/22/21	PC, SP, C, BA, LC, CL, CL, CL, PI	Videoconference	To reflect on previous session; To exchange strategies and suggestions; To preview the next session	SP coordinated collaborative creation of relevant Acts of Kindness

1/29/21	PC, SP, C,	Videoconference	To reflect on previous session;	C coordinated for physical gratitude journals
	BA, LC,		To exchange strategies and suggestions;	to be sent to students' homes;
	CL, CL, CL		To preview the next session	Discussed adding NearPod as an engagement strategy (group by group decision)
2/5/21	PC, SP, C,	Videoconference	To reflect on previous session;	LC reached out to students who
	BA, LC, CL, CL,		To discuss strategies for increasing attendance;	stopped attended to provide support and encourage attendance;
	CL		To preview the next session	PC created visual instructions for accessing the VIA survey
2/8/21	PI, PC, LC, AP	Videoconference	To discuss how to support students who did not qualify for the WBPP; To plan post-intervention outcomes assessment	 PC provided list of students whose screening data indicated that they may benefit from additional targeted support; LC created mid-point survey to gather student perspectives about the experience Planned to collect post-intervention data (measures and open-ended questions) via Google Form; Will ask students, caregivers, and interventionists to participate in exit interviews; PC and PI will draft caregiver survey to be sent after WBPP
2/12/21	PC, SP, C, BA, LC, CL, CL, CL	Videoconference	To reflect on previous session; To exchange strategies and suggestions; To preview the next session; To discuss exit interviews and surveys	Interventionists exchanged strategies (e.g., use breakout rooms, send Google Classroom links directly) PC provided update about plan to collect acceptability data from students and caregivers

2/26/21	PC, SP, C,	Videoconference	To reflect on previous session;	Provided topics to include in caregiver and
	BA, LC,		To exchange strategies and suggestions;	student surveys;
	CL, CL,		To preview the next session;	Discussed combining two groups
	CL		To discuss feedback to be elicited from	
			students and caregivers	
3/5/21	PC, SP, C,	Videoconference	To reflect on previous session;	PC sent out template for digital certificate
	BA, LC,		To exchange strategies and suggestions;	of completion;
	CL, CL,		To preview the next session;	PC turned Program Activities Form into
	CL		To review PC's draft of student feedback	Google Form;
			survey	SP and LC suggested modifying language in
				certain questions and PC made
				changes
3/12/21	PC, SP, C,	Videoconference	To reflect on previous session;	Brainstormed logistics for gathering feedback
	BA, LC,		To exchange strategies and suggestions;	from students and parents;
	CL, CL,		To preview the next session;	Discussed incentive system
	CL		To review draft of student and caregiver	
			survey	
3/15/21	PC, SP, C,	Videoconference	To reflect on previous session;	PC will create certificate of completion
	BA, LC,		To exchange strategies and suggestions;	for WBPP;
	CL, CL,		To preview the next session;	Determined logistics for collecting feedback
	CL		To determine logistics for collecting feedback	(i.e., Google Form surveys with
			from students and caregivers	option to be interviewed)
3/26/21	PC, SP, C,	Videoconference	To reflect on previous session;	Research team will conduct interviews with
	BA, LC,		To exchange strategies and suggestions;	students and caregivers;
	CL, CL,		To determine logistics for interventions;	LC will coordinate the logistics;
	CL, PI		To celebrate the conclusion of WBPP	Celebrated successes of intervention

Note: PI=University-based Principal Investigator; LC=Lead Counselor*; AP = Associate Principal; PC=University-based Project Coordinator*; SP=School Psychologist*; C=Counselor*; BA=Board Certified Behavior Analyst*; CL=University-based interventionist*; T=teacher; MHT=Mental Health Team (includes AP, LC, C, SP, BA, T); RCT=IES-funded study *also served as WBPP interventionist

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