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Community-Engaged Development of a Parent-Child Book Reading Wise Intervention

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COMMUNITY-ENGAGED DEVELOPMENT OF A PARENT-CHILD BOOK READING WISE INTERVENTION

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Po-hun Chou

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To: Dean Michael R. Heithaus
College of Arts, Sciences and Education

This dissertation, written by Po-hun Chou, and entitled Community-Engaged Development of a Parent-Child Book Reading Wise Intervention, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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The dissertation of Po-hun Chou is approved.

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Florida International University, 2021

DEDICATION

I dedicate this dissertation to my parents, who brought me along a path of service; to Stacy L. Frazier, whose encouragement, guidance, and value-driven work will undoubtedly inspire me throughout my career; and to the children and families of Liberty City, who joined me in a partnership that has changed my life.

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ABSTRACT OF THE DISSERTATION

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by

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Florida International University, 2020

Miami, Florida

Professor Stacy L. Frazier, Major Professor

Children living in communities with high rates of poverty experience significant detriment to their academic skills and social, emotional, and behavioral health. Though a range of evidence-based interventions exist that aim to reduce these disparities, they face substantial barriers (e.g., related to financial and human resources, opportunity cost to target families, variable fit across the diverse populations in low-income households). In contrast, wise interventions use psychologically precise pathways to produce small, recursive changes that result in significant benefits. As such, they represent a resource efficient strategy with the potential for considerable impact with contextual adaptation. The current study utilized social marketing research strategies in the context of an academic-community partnership to design, iteratively refine, and examine an emotion-enhanced children's book – or picture book infused with opportunities to label and explain character emotions – as a wise intervention based in parent-child book reading, an especially warm and nurturing form of parent-child interaction. We employed the Social Marketing Assessment and Response Tool (SMART Model) to guide intervention development and evaluation. In SMART Phases 2-4 (Formative Research), end-users

(*n*=14) completed surveys on basic demographic information, mental health, current beliefs about joint book reading and ongoing practices, and perspectives and response styles to children's emotions. We then engaged participants in focus groups and interviews to obtain insights regarding the perceived need and preferred characteristics of the proposed intervention. Feedback informed the design of prototype components (i.e., book characters and storylines) that we presented to both new and returning end-users (*n*=10) for feedback in SMART Phase 5 (Development) pre-testing. Stakeholders (i.e., end-users) again completed surveys on basic demographic information, mental health, current beliefs about joint book reading and ongoing practices, and perspectives and response styles to children's emotions, and participated in interviews to provide additional feedback. Results from Phase 5 pre-testing informed iterative refinement, and a completed intervention was evaluated by a broad audience via an online survey (*n*=31) to examine acceptability, usability, and perceived effectiveness.

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I. INTRODUCTION TO THE RESEARCH

I am building a program of research synthesizing literature across multiple disciplines including psychology, public health, education, and design in order to create and evaluate interventions supporting healthy development among children and families impacted by poverty. My work focuses on (a) leveraging natural, resource-efficient opportunities for health promotion in families' settings and routines; (b) employing a broad toolkit of research methodologies (e.g., social marketing research, mixed quantitative and qualitative data collection, design thinking for product development) to maximize programmatic impact and reach through end-user feedback; and (c) integrating empirical literature with local stakeholder knowledge to craft evidence-based content for dissemination.

Rationale for Research

Youth in households impacted by resource scarcity experience deficits in both academic skills (Barnett, 1998; Rouse & Fantuzzo, 2009; Yoshikawa et al., 2016) and social, emotional, and behavioral health (Yoshikawa et al., 2012). Despite the development and rigorous evaluation of evidence-based interventions designed to reduce disparities for children in communities of poverty, numerous barriers hinder implementation (Yoshikawa et al., 2012). In addition to a lack of data describing cost-effectiveness of programming, their traditional single-target service model creates challenges for parents and caregivers with multiple priorities who must consider both financial and opportunity costs. Moreover, families in low-income households span a broad range of racial and ethnic identities, cultures, geography (i.e., rural, suburban, or

urban), and languages, and the variable fit of intervention packages to specific communities can result in differing levels of effectiveness.

By contrast, wise interventions adhere to three characteristics (Walton, 2014): (1) "psychologically precise" (i.e., their intended mechanism of change is well-founded in specific theory); (2) recursive (i.e., they reinforce small but repeated changes over time); and (3) context dependent (i.e., their effectiveness relies on the relevance and importance of the target process with the intended end-users). As such, they may provide resource-efficient, culturally robust avenues by which to leverage impactful routines to produce meaningful change. Parent-child interactions represent a particularly impactful psychological process with benefits for early school readiness and child and parent mental health (Bagner et al., 2014; Iruka et al., 2012). Parent-child book reading – an especially warm, nurturing parent-child interaction – carries additional benefits to literacy and language learning (American Academy of Pediatrics, 2014), socio-emotional development (Rohlfing & Nachtigäller, 2016), and acquisition of new knowledge (Abad & Pruden, 2013; Rohlfing & Nachtigäller, 2016; van den Heuvel-Panhuizen et al., 2016). Furthermore, it bears significant relevance to child socio-emotional outcomes when employed as a regular practice (Ferretti & Bub, 2017), and represents a home routine that acts as a buffer between parenting stress and child emotional and behavioral regulation (and subsequent child learning readiness) in low-income households (Zajicek-Farber et al., 2014). Thus, we proposed the design and iterative refinement of a wise intervention for children in communities with high rates of poverty, using parent-child book reading as its platform.

Presentation of Research Findings

This dissertation describes the process by which we engaged in community partnership to inform and evaluate an emotion-enhanced children's book – or picture book infused with opportunities to label and explain characters' emotions (i.e., the parent-child book reading intervention). Learning and results from this work are described across three distinct manuscripts. Chapter two, published in *Ethics & Behavior*, considers our experience in partnership with a local community-based organization as it relates to the American Psychological Association's Ethics and Code of Conduct. Its goal is to present a *procedure guiding ethical practice and publication* for research teams conducting community-engaged science. Chapter three, currently under review for publication in the *Journal of Participatory Research Methods*, reviews the compassion literature and its applications to academic-community partnership. Its goal is to provide a *framework to drive compassionate practice and training* for research and consultation in community settings. Chapter four, intended for submission to *Early Education and Development*, describes the process by which we designed, iteratively refined, and evaluated the parent-child book reading intervention following the Social Marketing Assessment and Response Tool (SMART Model).

II. SUPPORTING ETHICAL PRACTICE IN COMMUNITY-ENGAGED RESEARCH WITH 4R: RESPONSE, RECORD, REFLECT, AND REVISE

This manuscript has been published in Ethics & Behavior, and thus adheres to its use of APA 6th Edition formatting guidelines.

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Abstract

Efforts towards adaptation, dissemination, and implementation of culturally robust, evidence-informed mental healthcare rely on community-engaged research (CEnR). Academic-community partnerships help bring science to service for vulnerable and historically disenfranchised populations (e.g., communities of color and those characterized by poverty). A growing literature supports the development of a framework of ethics for CEnR. This article utilizes the American Psychological Association Ethics Code to examine the General Principles – *Beneficence and Nonmaleficence; Fidelity and Responsibility; Integrity; Justice; and Respect for People's Rights and Dignity* – and presents the 4R action plan to support application of APA guidelines to CEnR with youth-serving organizations.

Keywords: community-engaged research; vulnerable populations; academic-community partnership; training

Introduction

A robust body of literature documents obstacles to the dissemination and adoption of evidence-based mental health care (Kazdin & Blase, 2011), altogether contributing to a 17-year gap from service development and evaluation to public availability and use (Balas & Boren, 2000). Despite rapid demographic diversification of the American population, intervention science has struggled to keep pace in both examining effectiveness of promising interventions across subcultural groups (González Castro et al., 2010), and meeting the unique needs of youth and families in poverty (Cappella et al., 2008; Frazier, Cappella, et al., 2007). Toward bridging these gaps, investigators have

increasingly turned to research designs incorporating science-community partnerships to facilitate the transport of evidence-based mental health recommendations to natural settings in accessible, culturally robust formats (Frazier, Abdul-Adil, et al., 2007; González Castro et al., 2010). New settings, however, bring new challenges that require careful consideration of traditional ethical standards and their application to non-traditional spaces.

The complexity and diversity of community partnerships have complicated the advance of a single comprehensive ethical framework across community psychology's 50-year history; instead, investigators have relied on value-driven and justice-oriented aims, like those cited in the Belmont Report and the Declaration of Helsinki, alongside the ethics codes of various disciplines (e.g., American Sociological Association; American Evaluation Association; American Anthropological Association) to inform professional practice (Campbell & Morris, 2017a). Further, community psychology's rich oral tradition of exploring ethical issues is supported by a growing body of written case examples providing first-hand accounts of ethical struggles – an important step towards developing an evidence-informed framework translating broad values into specific guidelines for ethical conduct (Campbell & Morris, 2017a).

As investigators curate an ethics literature, however, programs of community-engaged research (CEnR) continue moving forward with increasing speed, often reflecting the urgency experienced by partnering organizations to improve services and outcomes for those they serve. Moreover, current trends indicate that psychologists are increasingly working in communities characterized by poverty and other social determinants of poor health, collaborating with non-academic partners, and involved in

social justice and policy (American Psychological Association [APA], 2017b). Rising numbers of investigators with variable training in community engagement coupled with the current social and political climate – influenced by policymakers' devaluation of science over recent years (Center for Science and Democracy, 2017) and mixed attitudes towards scientists among the general public (Funk, 2017) – lends urgency to the need for guidance on ethics in CEnR to mitigate inadvertent misconduct that may exacerbate skepticism towards researchers within vulnerable communities (Campbell & Morris, 2017b). Among CEnR scientists in community psychology, this means examining the ways in which our own ethical guidelines – The APA Ethical Principles of Psychologists and Code of Conduct (i.e., the APA Ethics Code; APA, 2017a) – might best support our community engaged science.

Ethical Issues in Community-Engaged Research

Community-based organizations (CBOs; e.g., community healthcare centers, non-profit and publicly funded youth programs) carry unique challenges uncommon to traditional university-based research contexts (Campbell & Morris, 2017a). Moreover, CBOs' fast-paced, high-need programming aligns poorly with academic institutions' operating procedures (e.g., institutional review board [IRB] processes, traditional definitions of feasibility, accounting and legal standards built to accommodate research on campus; Frazier, Formoso, Birman, & Atkins, 2008; Michener et al., 2012). Research teams also face ethical challenges that arise from biases that exist on both sides of partnership (e.g., Case, 2017; Haarlammert, Birman, Oberoi, & Moore, 2017); differences in values and priorities across teams and subgroups (e.g., Kivell, Evans, & Paterson, 2017); and conflicting accountabilities across research team members' various

roles (e.g., Kesten, Perez, Marques, Evans, & Sulma, 2017). Investigators' own needs and priorities (e.g., securing funding, career advancement, publication) further complicate – and may compete with – efforts to thoughtfully address these issues, and the shift in focus from individual to group-level of analysis limits the applicability of existing analytic tools (Campbell & Morris, 2017a). In short, science-community partnerships are diverse and complex; as such, we recognize that a provision of "best practice" recommendations may lack relevance to specific partnerships or challenges, and potentially overextends our specific learning and experience. Instead, our goal is to raise questions that have been revealed in our own long-standing program of CEnR and thereby promote ongoing discussion of ethical practice. Below, we organize considerations by the APA Ethics Code's General Principles: *Beneficence and Nonmaleficence; Fidelity and Responsibility; Integrity; Justice; and Respect for People's Rights and Dignity* (APA, 2017a). Throughout, we describe experiences from the past two years of our ongoing partnership with *Future Leaders* (a pseudonym), a non-profit organization serving a local high crime, low resource community.

Beneficence and Nonmaleficence. Psychologists are ethically bound to protect and not harm those with whom they work (*Principle A: Beneficence and Nonmaleficence,* APA, 2017a). Typically, this principle involves mandated reporting of maltreatment and abuse, and the inclusion of extra protections for vulnerable communities against coercion and deception in research. Though conceptually simple, its complexity in CEnR reflects ambiguity regarding how to define *"those with whom they work"* (i.e., accountability; Kesten et al., 2017). Community-partnered investigators collaborate with individuals across a range of stakeholder groups, with competing demands and priorities, and are

required to juggle their accountability to project funders, local collaborators (including administrators and frontline staff), and the vulnerable populations served by their partnering CBOs (Anderson et al., 2012). At the same time, investigators are tasked with evaluating the extent to which safeguards may also cause harm, resembling considerations associated with mandated reporting: when does protection of a child, elderly, or disabled individual warrant breaching confidentiality? Even in traditional psychotherapy settings, the decision is fraught with uncertainty in determining the presence of maltreatment or neglect and considering whether the resultant damage to therapeutic alliance and potential termination of services does more harm than good (Gushwa & Chance, 2008). The broader community context adds substantial weight and complexity.

We have found that advanced and explicit attention to the following characteristics of our CEnR collaborations guides our thinking and decision-making towards addressing ethical challenges: (1) goals for research and collaboration, (2) individuals engaged in activities towards these aims, and (3) specific setting and larger context in which activities occur. First, doing our best to clearly communicate our overarching goals and align them with our partners' goals helps us establish our responsibilities to collaborators and stakeholders, and clarify both competing and convergent needs across both sides of partnership. Maintaining an understanding of roles as the partnership advances enables us more readily to identify routes by which we might mitigate harm, while evaluating needs helps to highlight potential consequences. Next, a mental map of CBO-engaged individuals provides further guidance as to who we serve, who should be involved in resolving ethical challenges, and how our actions might create

cascading effects for others. Though each organization includes a unique combination of personnel, we broadly categorize CBO members as leadership (i.e., those high in institutional hierarchy who play major roles in decision making), supervisors (i.e., mid-level managers who oversee day-to-day operations), frontline staff (i.e., organizational members who are in direct contact with stakeholders), and target groups (i.e., program participants, often those receiving direct services). Individuals may belong to multiple subgroups, lending added complexity. Lastly, context is important both in terms of the specific space within which services are provided, and the larger community served. The *specific* setting of partnership determines policies and procedures relevant to identifying and resolving ethical challenges. Similarly, the *broader* context (e.g., cultural norms, available resources, needs of stakeholders) can guide not only *when* but also *how* we act, or intervene. In addition to helping us respond in ways that stakeholders may find more acceptable, contextual factors may indicate why a particular issue is occurring (or recurring) and point us to underlying problems, and in turn, more sustainable solutions.

A working knowledge of these factors regularly acts as the foundation from which we make decisions regarding our approach to ethical challenges. With *Future Leaders*, partnered activities pursue two **overarching goals:** (1) workforce development in their after school and summer program serving preschoolers and elementary-age youth; and (2) development and evaluation of a brief parent-preschooler book reading intervention. **Engaged individuals** include the organization's CEO and program directors (*leadership*), a site supervisor and team leads (*supervisors*), and teachers and advocates (*frontline staff*) who support the children enrolled in *Future Leaders* and their families (*target groups*). Activities across both aims occur in the **larger context** of an

organization with multiple partnerships hoping to sustain a variety of programs for families in a community characterized by high poverty and high crime. The **setting** is a public school, following policies and procedures set by the local school district, and which hosts other extracurricular and after school programs.

Throughout the course of our partnership, we have provided monthly workshops for *Future Leaders* frontline staff and supervisors on student engagement, child development, and infusion of socio-emotional content into regular routines and activities. In addition, we provide weekly on-site consultation to support implementation of workshop recommendations. Our primary goal of workforce development informs decisions regarding the appropriate level of response to any incident (e.g., mandated reporting to a state agency, internal CBO reporting procedures, or individual staff consultation), prioritizing protections for safety and welfare while preserving rapport and respecting local process and values. Addressing situations empathically – in a way that acknowledges real-world barriers without aligning with a status quo that may perpetuate harmful practices – can strengthen relationships and support future efforts to affect change. Similarly, a mental map of engaged individuals yields options regarding pathways by which to address each issue (e.g., some staff respond best to direct consultation, others better to instruction provided by peers, team leaders, or site supervisors), and an understanding of context and setting (e.g., cultural norms, resources available to implement recommendations or sustain change, mandated procedures) further delineates ways by which to help frontline staff improve practice. Even with this information, however, the appropriate ethical solution may remain unclear. In light of negative consequences that may outweigh benefits (e.g., staff termination, damage to

rapport, suspension or closure of programs providing essential services to under-resourced communities), investigators face difficult, high-stakes questions.

Answers may be found in another set of questions: what can academic partners do to promote positive change, is it sufficient, and what is the cost to themselves, their collaborators, and the community at large? Answers may satisfy legal criteria (e.g., protecting research teams and their institutions from liability, "what we *have* to do") and/or ethical principles (e.g., what best protects our participants and advances our science and communities, "what we *should* do")(Campbell & Morris, 2017b); although the two are related, they are not always the same. Moreover, while some questions (like those related to mandated reporting) have legal repercussions, others fall outside of legal mandates, further reducing clarity regarding their resolution. Though it may seem obvious that we should always adhere to the highest standard, the realities of employing aspirational solutions may overextend time, funding, and human resources, ultimately doing more harm than good; indeed, we consider that setting procedures to protect participants and communities that cannot be reasonably completed or sustained is at times itself a violation of ethical principles (e.g., *Beneficence and Maleficence* – psychologists should maintain awareness of the limits of their physical and mental health and its impact on their ability to help others; APA, 2017a). Balancing immediate costs and benefits with consideration for the impact of choices on long-term outcomes and course of partnership, involves significant uncertainty. Exploring the next principle, *Fidelity and Integrity*, has often supported our process in seeking clarity around these obligations.

Fidelity and Responsibility. Psychologists will act truthfully and morally in professional relationships, taking responsibility for their actions, and supporting their

communities (*Principle B: Fidelity and Responsibility*). Broadly speaking, *Principle B* cautions against conflicts of interest that may lead to "exploitation or harm" and urges psychologists to mitigate effects of such conflicts when they arise. In traditional practice, conflicts of interest reflect risk associated with entering into multiple roles with specific individuals (e.g., not forming personal relationships with patients, not soliciting research participants for services) or having multiple competing accountabilities (e.g., financial conflicts that may impact objectivity of science). In academic-community partnerships, however, each group represents a collection of subgroups and individuals with a range of interests and priorities. Thus, collaborations inherent to CEnR bring complexity that warrant further attention and specification.

First, we reflect on how we might best meet our responsibility across all levels of our partnered CBOs. For instance, stakeholders at different levels of CBOs (leadership, middle managers, frontline staff) may hold conflicting views for how best to uphold their mission and meet their service goals. In the course of providing workforce support to *Future Leaders*, we have become increasingly aware of the causes and consequences of these disparate views, and of our unique position to leverage opportunities within our purview that may mitigate conflicts as they arise. Take, for instance, allocation of tasks to staff. Like many after-school programs, *Future Leaders* employs many part-time front-line providers whose compensated hours are almost entirely spent with enrolled children, placing a premium on time before or after program hours for planning and problem-solving. *Future Leaders* staff members spend considerable time entering indices of student performance in online portals – data required and used by leadership to secure funding for equipment, materials, or staff salaries. Everyone converges around a primary

goal of continuous quality improvement; however their strategies compete for an already limited resource – staff time – which in turn complicates our efforts to provide consultation in a way that upholds the values and needs of both groups within the organization.

Data-informed decision making may help to resolve shifting conflicts of interest via questions about roles and goals in collaboration, including but not limited to the following examples: What is the nature of partnership (e.g., what are the CBO's overarching goals in their engagement with this research, what roles are expected of the academic partner and CBO, and to what extent can the academic partner encourage and enact change to research practices and procedures)? What is the CBO's relationship with the community they serve (e.g., do they see themselves as members of their target community, what power dynamics exist between the organization and stakeholders, and how might imbalances impact ethical practice)? Who among the CBO workforce have expressed interest and investment in partnership (e.g., are CBO champions of partnership key opinion leaders, how long have they been employed by the collaborator, and what other priorities do they hold)? Transparent and explicit dialogue contributes to building trust and sustaining relationships, and may support efforts to anticipate potential conflicts of interest and mitigate their impact on partnered research. Notably, we have found that these questions often require ongoing conversation, as we have revisited them multiple times in the course of each of our partnerships in an effort to "stay on course".

Second, we reflect often on how we can best conduct our partnered work while meeting the overarching goals of academia and professional development. Similar to CBOs, academic teams consist of multiple stakeholders and groups (e.g., established

researchers, early career investigators, post-doctoral fellows, graduate students, undergraduate research assistants) with different needs (e.g., tenure and promotion timelines for faculty members, program milestones for graduate students) and access to resources. We often consider the ways in which the timeline and complexities of partnered research compete with goals for professional advancement and funding, and how these competing priorities may contribute to conflicts of interest (e.g., collecting data without adding undue burden to stakeholders; providing support for challenges that lie outside of our direct areas of knowledge to maintain rapport and respond to staff members' feedback; seeking funding for our work – and staying true to proposed research designs and procedures once funding is conferred – without overextending our own or our partners' resources).

Here, too, we rely on a series of questions posed within our team to inform decision making towards ethical practice. What funding sources would be made available, and to what extent would those financial resources become essential to the research team? What research opportunities exist, and how might they bind academic teams to maintain partnership (i.e., can investigators walk away from time invested in data collection if needed – for example if CBOs themselves begin engaging in practice that is not ethical based on our standards)? What other initiatives and partnerships are in progress, and how might one collaboration affect others? Additionally, we strive to consider the implications of our own power and status, arising from advanced training and expertise, and access to university resources (see Kakkad, 2017; Kesten et al., 2017): In what ways does partnership align the team with traditional power structures (e.g., state and federal institutions) and vulnerable communities, and how might these

accountabilities compete? What message does partnership with institutions in power send about investigators' acceptance of (or alignment with) their practices, and how might researchers leverage partnership to advocate for disenfranchised populations and marginalized subgroups? These questions comprise an ongoing discourse that we have found useful in guiding choices to initiate and sustain partnerships, direct investment of our time and effort, and take action to resolve conflicts of interest as they present themselves. Moreover, these questions have had a direct bearing on our efforts to uphold both *Integrity* and *Justice* in our work.

Integrity and Justice. Psychologists will act to avoid "unwise or unclear commitments" (*Principle C: Integrity;* APA, 2017a), and identify pressures that may result in unequal access among stakeholders and groups to the benefits of partnered work or psychological science as a whole (*Principle D: Justice;* APA, 2017a). Central to *Integrity* and *Justice* are issues that arise from attempts to balance individual rights with group or social gains (Kivell et al., 2017). Fundamentally, scientists strive to advance knowledge and support the greater good. Researchers and IRBs assess the risks and protections associated with study procedures to ensure that benefits (to society) exceed costs (to individual participants) (Dworkin & Allen, 2017). In CEnR, however, this calculation is further complicated by the introduction of additional groups and stakeholders for whom risks and benefits may differ or compete, and investigators are encouraged to consider how research conducted in non-traditional community spaces, as opposed to university laboratories, might confer benefits, opportunities, risks or costs for individual participants, organizations, and the broader community.

Beyond weighing CBO-specific individual (e.g., specific staff members) risks versus group (e.g., a department within the CBO, or the CBO as a whole) benefits, we often find that we must weigh individual risks with group benefits where the "group" in question represents the larger field or society as a whole (see Kivell et al., 2017). Procedures to ensure privacy, confidentiality, and right to decline participation without undue pressure ultimately impact data collection and may result in insufficient information to answer scientific questions (Dworkin & Allen, 2017). For example, in determining partnered activities with *Future Leaders* related to the development and evaluation of our parent-preschooler book reading intervention, we opted for an open trial research design. We set aside our ability to make causal inferences by not employing randomization to control conditions or multiple baselines in order to reduce burden on participants who may already experience significant life stressors. Similarly with regard to use and management of data (both data collected for research purposes and data by-products of organizational procedures and quality improvement workshops), staff members may decline to participate (in research or consultation) and are not required to identify themselves on any forms completed. Moreover, we retain all original forms and datasets with individual data points, do not disclose individuals' responses to CBO leadership, and only provide findings to *Future Leaders* members in aggregate, de-identified formats. These practices align with conventional practice (e.g., Kadushin, 2005) and remind us to consider what might promote or disrupt the fair use of and equal benefit from data collection and analysis, bearing in mind important implications towards differential interpretation, dissemination and influence of findings across stakeholder groups. In the absence of sufficient data to advance knowledge and enhance society, there

is less overall benefit to offset risks incurred by individuals that did participate in the research. Moving from societal to local impact, it bears mention that community partners and members invest significant time and effort in research in hopes that findings will inform their programming and directly benefit their stakeholders. Failure to produce meaningful data can erode relationships, trust and support of research generally (Dworkin & Allen, 2017).

As many of our partnerships involve organizations engaging with communities in which scientific conduct has historically employed deceptive or unethical practices (e.g., communities of color or those characterized by poverty; Lee, 2012; Satcher, 2012), we are particularly sensitive to the risk of failure to upholding *Integrity* ("Psychologists strive to keep their promises") and *Justice* ("equal access to and benefit from the contributions of psychology") (APA, 2017a). Again, transparency through open dialogue; clarity regarding expectations, costs, and benefits; and shared agency in decision-making regarding research procedures (recruitment, data collection, interpretation and dissemination of findings, data-informed program modification) mitigate risks for misinformation, inflated expectations, perceived deception and or disappointment. Previous literature and existing recommendations for community engagement underscore in particular the importance of transparency, frequently identifying open dialogue at all stages of partnership as best practice (Anderson, 2013; Michener et al., 2012).

As relationships and roles become more complex over time, however, even open dialogue can require caveats and be difficult to maintain. In collaboration with *Future Leaders*, we have clarified our role as one of training and consultation – but not evaluation of staff performance – to leadership, mid-level supervisors, and frontline staff.

Setting this boundary creates a precedent that encourages frontline staff to raise concerns and ask for help (i.e., expose vulnerabilities) without jeopardizing (or fear of jeopardizing) their employment or potential advancement. It can become tricky though to communicate openly, honestly, and truthfully (i.e., with *Integrity*) in receipt of information (from staff members or by direct observation) that may have direct implications for program quality and community needs such as safety (i.e., to uphold *Beneficence and Nonmaleficence*). Here, too, transparency facilitates adherence to ethical standards; for instance, early candor regarding potential exceptions to confidentiality (e.g., observed risk of harm to a child) facilitates disclosure of potential concerns; opportunity to address questions, concerns, and hesitations about research; and mutual understanding of roles, goals, and expectations. Transparent, bi-directional conversations over time and across organizational levels provide a foundation for difficult decisions that may otherwise be perceived as contradictory or deceptive by CBO members (for example, reporting frontline supervision or safety concerns to managers despite our commitment to a non-evaluative role). Engaging in these discussions *across all partnership levels* helps to ensure equal quality of and access to the research partnership (and associated consultation) for all staff, especially important when organizational goals conflict with individual needs (e.g., staff termination to reduce program cost), or when individuals at different CBO levels prefer competing strategies to work towards the same goal.

Respect for People's Rights and Dignity. Psychologists are expected to value diversity and mitigate the effects of preconceived biases on their work and ethical practice (*Principle E: Respect for People's Rights and Dignity;* APA, 2017a). In spirit,

Principle E aligns with prior discussions on safeguarding vulnerable individuals and communities and is supported in practice by efforts to minimize harm, assess accountability, and invite open discussion. On our team, we strive to remain particularly mindful of science's confronting, storied history of deceptive and unethical conduct in communities (particularly those of color; see Lee, 2012; Satcher, 2012), and we welcome explicit and ongoing discussion about this with our community partners and stakeholders. Efforts to this end strengthen research by identifying and reducing prejudice and improving objectivity and truthfulness in scientific activities.

Researchers write narratives – both through subjective impressions and decisions regarding sampling, recruitment, data collection, analyses, and interpretation – of communities represented in their work. As Haarlammert and colleagues (2017) richly illustrate, this responsibility is even greater when partners and participants represent communities that are traditionally disadvantaged, underrepresented in research, and historically misrepresented in publications drawing from deficits-models and written through the lens of predominantly Euro-American norms. A key strength and tool of community engagement in ensuring respect for persons and cultures in publication is the utility of methodologies to explore ground-level detail by seeking information-dense responses from stakeholders. Introduction of *nuance* when publishing about traditionally underrepresented groups (e.g., use of physical punishment *alongside* the recognition of a boundary between appropriate discipline and child abuse; acknowledgement of cultural restrictions on women *couched in* adolescent girls' reports that they accept and at times prefer to uphold these norms) allows for a more high-resolution view of specific populations. The deliberate choice to include details that contradict or qualify narratives

perpetuated in conventional literature demonstrates respect for the agency and validity of individual and cultural differences (Haarlammert et al., 2017).

Identifying biases is a challenging enterprise – even for those who consider themselves "cultural insiders" based on demographic similarities to their partnered communities (Case, 2017; Haarlammert et al., 2017). Moreover, confronting these perspectives can raise shame, anxiety, and uncertainty (Case, 2017). Engaging community organizations and stakeholders in planning study questions and design diminishes the effect of researcher biases on collaboration and contributes to partnerships built on mutual respect and shared power (Michener et al., 2012). Like investigators, however, community stakeholders may bring to the research a determined lens that influences their expectations for what design and data are likely to be most impactful and relevant (e.g., Javdani et al., 2017). Thus, those hoping to adequately account for existing preconceptions must engage in critical self-reflection – both independently and with peers – in addition to discussions with partners (Case, 2017). Research decisions and responses – both explicit actions and internal reactions – may shift as a function of questions that deconstruct goals and motivations starting with objective observation ("What was happening that prompted us to act? What were our internal and behavioral reactions?"), moving on to assess motivation ("Why did we act or react this way? To what extent was this driven by evidence and knowledge, preconceptions and biases, or other needs and incentives?"), and ending with honest evaluation of consequences ("What was the outcome, and how did our reaction contribute to it? What went well, and what might we do differently in the future? What discomforts or issues remain?") These queries explore the cognitive underpinnings of investigator behavior *as well as* more

automatic internal reactions in hopes of acknowledging the emotionality of community-based science and leveraging investigators' critical understanding of their internal states to highlight biases in action (Langhout, 2015 as cited in Case, 2017). The last question in particular responds to experiences noted in the literature that biases are at times identified after an evaluation of disquiet and discomfort over multiple incidents (Case, 2017). Though presented here as a means to examine biases most relevant to *Respect for Peoples's Rights and Dignity*, this practice of self-critique supports the development of insight and exploration of patterns in partnership that inform ethical conduct and help answer questions posed across all five General Principles (APA, 2017a). The remainder of this article presents *4R*, a four-step action plan meant to guide debriefing and reporting of ethical issues in hopes of advancing both individual practice and the larger ethics literature. Even within our team, we employ these steps to varying degrees and in a range of forms; thus, we present this sequence in hopes that it provides a flexible prototype – not a rigid blueprint – that lends components for readers to consider and integrate into their own processes to the extent that they create opportunities to advance ethical practice.

Promoting Ethical Conduct in Practice – The *4R* action plan

The idea of documenting and reflecting on ethical issues is certainly not novel (Campbell & Morris, 2017a; Case, 2017). An emphasis on reflexivity as an essential practice in promoting ethical conduct, however, highlights the need for an explicit, structured approach for CEnR investigators with varying levels of training and experience. Responding to calls for expanding the ethics literature and reflecting on the limited opportunities to write and dialogue about experiences with ethical challenges

(Campbell & Morris, 2017a), the *4R* action plan incorporates strategies from qualitative and mixed-methods research to support its utility in generating publishable work towards advancing current science and service (Creswell & Miller, 2000) across four stages: *Respond, Record, Reflect, Revise.*

Respond. Though case examples in ethics literature present dilemmas and decisions that imply a slow and methodical process, in practice most require immediate response and quick action. In our experience, the discomfort and ambiguity of these situations can feed a reluctance to react for fear of making a mistake or misstep, especially with safety and rapport at stake. Non-response, though, when our expertise and consultation are most needed, is itself a risky choice with consequences. *Respond* serves as a reminder to initiate a response – some course of action – to the extent that it is ethically advisable, safe and feasible, even if the response is only to disclose transparently that a solution is yet unclear, and that time to confer with others is warranted. Notably, for undergraduate research assistants, graduate trainees, and even junior investigators operating under senior researchers' supervision, we conceptualize the Respond step as including both immediate action within the bounds of their training to mitigate harm, and consultation with supervisors as needed.

Record. We have made it our practice to privately document ethical concerns and our response with detailed field notes. Documentation serves to retain important details for both independent consideration and team discussion, and as a means to build a foundation of evidence towards potential contributions to the larger ethics literature. Records include (1) an objective description of events and actions that preceded the situation in question; (2) subjective impressions of the experience and the individual's

internal thoughts, emotions and reactions; (3) any immediate response (or non-response), and anything that unfolded thereafter; and (4) any planned steps for moving forward. All investigators engaged in a specific ethically challenging situation should record their recollections and reactions independently to provide more complete documentation and allow for cross-validation in discussion (Creswell & Miller, 2000).

Reflect. Independent reflection inspires critical examination of events and actions, thoughts and emotions, and underlying motivations and biases driving interpretations and responses. Documentation enables us to refer back across previous records to consider patterns of behavior and internal reactions that may contribute to ongoing and persistent ethical issues. Subsequent group reflection and peer debriefing provides space for feedback, dialogue, and education. In fact, ongoing frequent discussion around ethical issues – both within and across research teams and departments – facilitates a culture of open dialogue and learning by introducing different perspectives and solutions, and allowing everyone to learn from one another's experiences. For situations in which multiple team members were present, reports can be compared for cross-validation (Creswell & Miller, 2000). Researchers also may invite their collaborating partners to review their records (or share their own) to provide perspective and guidance on current and future issues. Overall, non-judgmental reflection provides an appraisal of ethical issues and constructive suggestions for alternative responses and steps forward.

Revise. In addition to any further actions identified as prudent through reflection, we may return to recorded experiences to document both insights gained through reflection and aspirational strategies to inform and improve future decisions, including

novel literatures to review in order to inform ethical practice. Revision is meant to solidify lessons learned and deepen the utility over time of cumulative records as a self-generated resource that lives and grows alongside researchers as they move along their path in community engagement.

Conclusion

As Campbell and Morris (2017a) remarked, "identifying an ethical path can be a difficult, uncomfortable, *and often quite a lonely journey*" (p. 491, emphasis added). Truly, the ethical dilemmas faced by investigators engaged in communities are frequent and varied, and clear "right" or "wrong" solutions may remain elusive, even after reflection and resolution. While current ethical standards such as the APA Ethics Code help light the way, their original development for traditional contexts and individual level of analysis introduce an ambiguity in application to community spaces and group-level problems. Nonetheless, as writings on ethics advance, community-engaged researchers may find solace and encouragement in the validation and normalization provided through others' experiences. Until then, we hope insights shared here highlight the value of open discourse and reflection and help steer toward the "ethical path" envisioned by Campbell and Morris (2017a). The diversity and complexity of CEnR necessitates that we proceed with compassion – for our community partners, ourselves and our teams – and continue to advance both our own local knowledge and the field's growing literature of ethical conduct in community engaged research.

III. CORE: COMPASSION ORIENTED REFLECTION AND ENGAGEMENT TO GUIDE ACADEMIC-COMMUNITY PARTNERSHIP

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Abstract

Estimates in dissemination, implementation, and services (DIS) research continue to present a 17-year lag for implementation of only 14% of evidence-based clinical services and technologies in practice (Chambers, 2018) – especially troubling for communities characterized by disproportionately high rates of poverty, crime and mental health need (Yoshikawa et al., 2012). Academic-community partnerships offer pathways by which to speed the transport of evidence-based innovations; however, a range of challenges can disrupt implementation and adoption (Damschroder et al., 2009). This manuscript presents Compassion-Oriented Reflection and Engagement (CORE), a framework to inform academic collaborators' perspectives and practices towards building flexible, responsive partnerships with youth-serving community-based organizations.

Key Words: academic-community partnership; compassion; community-based organizations; poverty

Introduction

Recent decades have seen a rapid expansion in dissemination, implementation, and services (DIS) efforts in healthcare; however, current literature continues to estimate a 17-year lag for implementation of only 14% of evidence-based clinical tools and technologies in practice (see Chambers, 2018 for a review). While investigators know less about rates of penetration for science specific to families impacted by resource scarcity, a robust body of work documents barriers to crucial evidence-based practices (EBP) in communities characterized by high rates of poverty (Yoshikawa et al., 2012). Youth in economically disadvantaged urban city centers continue to attend underfunded,

understaffed schools (Cappella et al., 2008), face higher rates of domestic and community violence exposure (Foster & Brooks-Gunn, 2009), and contend with geographic barriers (Baker et al., 2006) that altogether interfere with meeting basic physical, educational and mental health needs.

To address this gap, DIS scientists have increasingly leveraged a wide variety of academic-community partnerships (ACP) to transport EBPs to socioeconomically vulnerable communities (e.g., Fagan, Hanson, Briney, & Hawkins, 2012). Systematic cultivation of ACPs has yielded a robust body of work describing conceptual models to maximize the success of EBP implementation in community-based organizations (CBOs) (see Consolidated Framework for Implementation Research; Damschroder et al., 2009), and investigators have presented frontline challenges and examples of problem solving, "lessons learned", and recommendations for the procedures of ACP (Frazier et al., 2019; Stetler et al., 2006). In contrast to the well-established literature describing *what to do* (e.g., specific steps) in partnership, a growing discourse has increasingly called for guidance in the process of ACP – or *how to do it* (e.g., ethics; Campbell & Morris, 2017; Chou & Frazier, 2019). To this end, we introduce Compassion-Oriented Reflection and Engagement (CORE), a process model guiding our role and function as academic partners, describe its development and application through our experience as community-engaged researchers working in collaboration with a youth-serving non-profit organization called *Champions* (a pseudonym).

Compassion-Oriented Reflection and Engagement

Compassion-based theory serves as a fitting springboard from which to consider the process of partnership for a number of reasons. First, prior research presents

compassion-based practice as trainable and beneficial in guiding *process* (e.g., Beaumont & Hollins Martin, 2016; Sinclair, Kondejewski, Raffin-Bouchal, King-Shier, & Singh, 2017), as well as *procedure* (evidence-based compassion-based interventions have shown promise in implementation and knowledge translation; e.g., Sapthiang, Van Gordon, & Shonin, 2019). Therefore, training in compassion-based practice may prove especially efficient and effective for community-engaged scientists. Second, compassion-based strategies align well with current ACP procedural models promoting open engagement with community partners, joint decision-making about collaborative goals, and a mindful regard and consideration for power dynamics (e.g., as in Community-Based Participatory Research [Belone et al., 2016] and the Consolidated Framework for Implementation Research [Damschroder et al., 2009]). Third, studies in experimental psychology, as well as discourse in healthcare and education, point to compassion-based practices such as meditation and mindfulness as routes by which to reduce implicit bias toward marginalized groups in practice (Burgess et al., 2017; Carson & Johnston, 2000; Kang et al., 2014) – a phenomenon that may prove indispensable in healing damaged trust and regard among historically disenfranchised groups toward scientists and providers. Lastly, emerging evidence points to *self*-compassion as a means to bolster resilience and ameliorate the effects of burnout and vicarious trauma (Knight, 2013; Scarlet, Altmeyer, Knier, & Harpin, 2017). As such, a practice built on compassion may prove protective for both academics and community stakeholders, individually and in partnership.

Compassion-Oriented Reflection and Engagement – like many psychotherapeutic tools with a compassion focus (e.g., mindfulness, meditation) – draws heavily on traditional Buddhist theory and principles (Shonin et al., 2014). Compassion is a multi-

faceted construct defined in a variety of ways over many centuries. Brill and Nahmani (2017) draw on a number of sources – including the Dalai Lama, a preeminent figure in Buddhist and Eastern philosophies (Shonin et al., 2014) – and consolidate various conceptualizations to describe compassion in three components: acknowledgement of others' suffering, empathy for their experienced pain, and action to relieve suffering. To be clear, "suffering" here refers broadly to challenging experiences and related distress, and "compassion" requires recognizing the sources and outcomes of distress; perspective taking and responding to the distress; and acting to help alleviate it, for instance by removing a source of pain, offering tools for healing, or improving capacity for coping. Fundamentally, CORE guides community-engaged researchers' practices to build rich, genuine relationships with local partners by encouraging them to attend mindfully and non-judgmentally to stakeholders' perspectives, context, and goals, and employing flexible thinking to arrive at joint solutions.

Learning Together with *Champions*

Our Community Partner: *Champions*

Champions is a non-profit organization working to build the capacity of children and families. It employs a block-by-block model to support local neighborhoods with high rates of poverty and violent crime (The Metropolitan Center, 2016). Families there predominantly identify as black/African American, and local history documents a long narrative of disenfranchisement and injustice. *Champions* provides a range of health, education, and employment services (e.g., transportation, access to computers, resources for job searches and interviews, health and wellness initiatives, and a fresh food co-op),

including afterschool and summer programming for preschool, elementary, middle school, and high school age youth held at nearby public schools.

Champions Organizational Hierarchy

Champions operates out of a main office and multiple sites in the neighborhood including community offices in residential complexes, and schools hosting afterschool and summer programs. Specifically, they invited our collaboration to support their afterschool and summer programming, for children enrolled in preschool through 8th grade, held at a local K-8 magnet school that also houses a Head Start program. We engaged across levels of the organizational hierarchy - with leadership, site supervisors, and frontline staff.

Leadership included *Champions'* CEO (n=1) and program directors (n=2-4) located predominantly at the *Champions* head office. Each member of leadership carries a range of responsibilities including grant writing, management of program budgets and payroll, selection of program curricula, and communicating both with each other and with site supervisors.

Site Supervisors provide on-site management, engage with children and families enrolled in afterschool and summer programming around logistics and major concerns (e.g., registration, field trips and events, absenteeism, disciplinary issues), and facilitate the exchange of information about program needs, resources, goals, and changes between frontline staff and leadership. Historically, one site supervisor presided over both pre-K and elementary (i.e., Kindergarten through fifth grade) programs. During the last few years, *Champions* created a second site supervisor position for its new middle school program (i.e., grades 6 to 8).

Frontline Staff consisted of two groups – certified teachers (*n*=10-12) and "student supporters" (*n*=10-14). Certified teachers led supplemental lessons and provided homework support, while student supporters assisted in classroom management, supervised unstructured time (i.e., snack and recreational time), engaged students in outdoor games and activities, and communicated with students' daytime schoolteachers to identify areas of growth. Frontline staff were frequently reassigned to different classrooms and programs, in part reflecting a revolving door of Americorps members and volunteers, fluctuations in funding, partnerships with other local CBOs, and the implementation of "on call" or backup staff positions.

ACP Goals and Activities

Though our community-engaged research team has collaborated with *Champions* for a number of years – typically as invited facilitators to staff workshops and trainings – we approached them in the fall of 2016 to establish a more systematic ACP defined by shared goals and equitable decision-making, with first author Chou acting as the primary academic partner. In our early meetings with *Champions'* leadership, we converged around workforce support for frontline staff in *Champions'* pre-Kindergarten afterschool program as one of our primary partnership goals. Specifically, we scheduled three monthly meetings ("summits") in the spring of 2017 to discuss socio-emotional learning and student engagement strategies accompanied by weekly site visits to observe, model, and consult on social-emotional content in real time. As we neared the end of our original ACP timeline, requests with high enthusiasm from frontline staff, leadership, and site supervisors for continued partnership led to our decision to extend collaboration. We established plans to revisit goals and activities at the start of each semester and came to a

joint understanding that we would gradually transition to a less intensive model of partnership in the third year, coinciding with the first author's timeline to complete graduate training.

Within the first year, monthly summits and weekly consultation expanded to incorporate the elementary (serving approximately 120-150 children each year) and middle school (serving approximately 30-50 children each year) programs, including direct support for both site supervisors and frontline teams. Together with stakeholders from all levels of *Champions'* hierarchy, we shifted the focus of consultation to broader organizational strengths and barriers to quality programming in the second year. In addition to continuing our discussions on socio-emotional learning and student engagement, we incorporated topics such as communication, culture and climate, and staff burnout, responding in part to high turnover and frequent transitions in leadership as a number of *Champions* team members left the organization over the course of our three-year ACP (two from CEO positions, six from program director positions, three from site supervisor positions, and roughly eight to ten from frontline staff positions). Of special note, though not explicitly part of our originally intended role and function, we invested significant time in supporting *Champions* and their community – at their request – through a number of tragic and sorrowful events including several related to gun violence, family conflict, and grief following the loss of students or staff. To a meaningful extent, broadening our role in this way revealed the significant and important contribution of compassion-based concepts and skills towards joining authentically and collaborating fully with the *Champions* team.

Development and Application of CORE

In our efforts to provide flexible, responsive consultation, we sought to highlight and elevate the many strengths of the *Champions* team and engaged members at all levels of the workforce hierarchy to guide the activities and direction of our collaboration. We drew evidence-based practices from a range of psychosocial frameworks (e.g., cognitive behavioral therapy; Acceptance and Commitment Therapy; couples therapy), and employed strategies found in organizational and leadership interventions for youth service settings (e.g., Aarons, Ehrhart, Farahnak, & Hurlburt, 2015; Glisson & Schoenwald, 2005). We increasingly found that the compassion-oriented literature resonated with our goals and process.

Over time, CORE began to frame our efforts and expectations as community-engaged researchers and to inform our practice, becoming part of our code of conduct alongside ethical guidelines and principles. In particular, *CORE shaped our efforts as academic partners* related to four themes: (1) thinking flexibly to build a responsive partnership; (2) promoting effective communication within the CBO; (3) responding to stress and emergent events impacting CBO staff; and (4) facilitating self-care and peer support within our research team. For each, we detail a relevant experience in ACP with *Champions*, discuss a compassion-based concept that supported our efforts to move forward in partnership with the *Champions* team, and consider its application to our work as well as its potential utility in other ACPs.

Theme 1: Thinking flexibly to build a responsive partnership

Throughout our collaboration with *Champions*, we have continually expanded and redefined our role and objectives guided explicitly by the organization's evolving goals

and shifting priorities. When our collaboration began toward the end of 2016, we planned three monthly summits in early 2017, to be accompanied by weekly site visits for observation and in vivo support of EBP implementation. Summits were planned with leadership to include discussion and evaluation of staff norms, values, and perceived strengths and obstacles (January); empirically-supported content on emotions and mental health, student engagement, and strategies to address challenging behaviors (e.g., Good Behavior Game, differential attention, safe time-outs; February); and problem solving around implementation (March). Though partnered activities were initially intended for the preschool program alone, support was extended to the elementary program staff within the first month by request of the site supervisor. Additionally, the community team and high school program staff periodically joined monthly meetings but did not receive weekly consultation.

The expanded audience raised a much broader constellation of concerns than we previously planned to address. In addition to organizational challenges that included (but extended beyond) barriers relevant to implementation of recommended content, concerns included community building, parent engagement, mental health and trauma, supporting youth through family and community disruptions, and a host of others directly or indirectly reflecting resource scarcity. As a research team, our early conversations focused on providing support with sustainability in mind. We tried to minimize reliance on our consultation by prioritizing knowledge transfer and mobilization while leveraging, without overextending, local staff, structures, and resources. Organizational barriers (e.g., lack of structured activities, last-minute changes to daily routine, insufficient materials for instruction, limited control over classroom design and outdoor space), alongside staff

turnover (including the CEO and program directors), limited the effectiveness of change efforts requiring minimal investigator support. Thus, we worked to reevaluate our role and function in partnership. To do so, we drew in part from Relational Frame Theory, a fundamental component of Acceptance and Commitment Therapy.

Compassion-based Concepts

Relational Frame Theory states that individuals understand concepts largely in relation to other concepts, and these connections form semantic networks that ultimately drive their behaviors (Hayes et al., 2006). In Acceptance and Commitment Therapy, a therapist may apply this concept to help a patient understand their traumatic stress reaction to a car accident by explaining that their experience of a life-threatening event has created a connection with high salience between related stimuli (e.g., driving or riding in cars) and abstract concepts (e.g., danger, fear, risk of harm)(Hayes, 2018). In some cases, these semantic links – or relational frames – can become impairing (e.g., anxiety around driving prevents them from commuting to work) and stable enough to persist despite immediate, contradicting information, resulting in "cognitive fusion" (for more, see Hayes and colleagues, 2006). Acceptance and Commitment Therapy embraces "cognitive defusion", to help "loosen" rigid semantic ties, for instance through exposures, whereby patients gradually and safely engage with stimuli related to their anxiety (e.g., riding as a passenger on progressively longer car trips, ultimately driving to work again) to provide more *safe* experiences of driving and weakening the cognitive relationship between driving and danger.

Application

For more abstract problems, individuals can identify relational frames that may interfere with flexible and responsive collaboration and reappraise rigid connections through a mindful, nonjudgmental evaluation of thoughts and beliefs. This practice has allowed us to bring our time and effort more fully to the challenges most relevant to the *Champions* team. Toward addressing organizational barriers, we recommended strategies that minimized reliance on our team as the "middle man"; however, despite stakeholder enthusiasm, we found it difficult to maintain enough momentum to produce meaningful change given the numerous and competing demands impacting the *Champions* workforce. Evaluating our relational frames, we identified our own beliefs that *sustainable solutions are good*; and sustainable solutions in consultation require *minimal investigator support*, enabling them to remain viable after partnership ends – thus solutions that *require more than minimal investigator support* are not sustainable, and by extension, are *not good*. We ultimately recognized that Champion's limited resources, time, and staff offered very few "degrees of freedom"; hence, our adherence to traditional definitions of sustainability and success from DIS science were impairing our ability to promote meaningful and lasting change. While we continue to appreciate the importance of conventions for science and practice, our early experiences with *Champions* compelled us to loosen boundaries defining our work and create flexibility to address pressing issues while maintaining those essential constructs that support ethical, rigorous science.

Lessons Learned

Processes and practices from Acceptance and Commitment Therapy supported our ability to contribute responsively to our partnership with *Champions*; specifically, we

applied cognitive defusion in a series of steps to join their efforts at organizational change. First, we evaluated the guidelines and assumptions set forth within our research team that might restrict the options generated in our attempts at problem solving, both internally and with our partners. Second, we identified restrictive conditions that narrowed the possible mechanisms of change available in our collaboration (i.e., our conceptualization of and emphasis on sustainability). Lastly, we re-appraised the extent to which these pre-existing notions were applicable to the situation at hand, feasible given our goals and available resources, and truly necessary to progress. We revised our role to become more active participants in their organizational change process, leveraging our time and effort as added resource to create space for lasting growth (see Frazier et al., 2019).

Theme 2: Promoting effective communication within the CBO

As we shifted our focus more intentionally and effortfully onto structural barriers impeding EBP adoption, we identified poor communication between frontline staff, site supervisors, and leadership as a chief concern across CBO levels. We utilized components of organizational and leadership interventions (Aarons et al., 2015; Glisson & Schoenwald, 2005) to assess and address workforce needs, extending consultation to site supervisors and program directors at their request. Specifically, we introduced conversations around communication and transformational leadership (Aarons et al., 2015), encouraged systematic collection of feedback from frontline staff through surveys and small group meetings, and ultimately proposed a stakeholder advisory structure informed by goals and principles of Organizational Action Teams (Glisson & James, 2002). Efforts to enhance and systematize communication across service, managerial, and

executive levels revealed strained – and in some cases, fractured – relationships across the organizational hierarchy: leadership worried that frontline staff would not be forthcoming in sharing concerns openly and honestly, while frontline staff doubted their efforts would be rewarded with meaningful change or follow through. At each level, there appeared to be doubts that other stakeholders were committed to promoting progress. In turn, partners expressed low overall expectations for the possibility to create meaningful improvements and, as a result, ambivalent engagement with the process.

Of particular interest, overlap in narratives told by frontline staff and leadership indicated convergence around (1) a joint mission to support local youth and families and (2) experiences of high workload and burnout. Conversations aligned with a well-documented bi-directional relationship between job stress and burnout, and interpersonal conflict (Ashill & Rod, 2011; De Dreu et al., 2004). At a larger scale, symbolic interactionism – which posits that individual communication and interpersonal processes of members within a social organization define the overall social environment (Maines, 1977) – suggests that this cycle of burnout and conflict likely fed into the overarching organizational culture and climate that, in turn, cycled back down to the workforce and affected burnout and readiness for change (Aarons et al., 2015; Glisson & James, 2002). Efforts to repair and restore positive, productive interpersonal dynamics, and to disrupt concentric cycles of burnout, conflict, culture, and climate, led us to employ concepts from relationship/couples' interventions to encourage development of safe and supportive working relationships. Couples' therapy frameworks – which draw heavily on attachment theory – became a platform for partnered discussion built around the conceptual connection between compassion and secure attachment.

Compassion-based Concepts

Mikulincer and Shaver (2005) propose that "if only people could feel safer and less threatened, they would have more psychological resources to devote to noticing and reacting favorably to other people's suffering", highlighting mutual compassionate regard as a potential pathway to achieving security in attachment by establishing that individuals will protect and support each other under circumstances of stress and hardship. In keeping with this perspective, we predominantly utilized speaker-listener strategies from the Prevention and Relationship Enhancement Program (Owen, Quirk, Bergen, Inch, & France, 2012). Ultimately, individual and small group conversations moved through three stages: listening and validating concerns and perspectives through speaker-listener reflections; offering alternative explanations and generating empathy and compassion for peers; and problem solving.

Application

Accordingly, during consultation we adopted a coaching role resembling that of therapists facilitating speaker-listener exercises. In group discussion, for example, we often paused the conversation and asked site supervisors to reflect what they heard in concerns raised by their frontline staff, seeking confirmation or clarification from frontline staff as needed. Similarly, when program staff brought concerns to us individually, we reflected and validated their experience, and also provided alternative interpretations that might gently counter their assumptions. For example, when leadership attributed problems in program delivery to inadequate effort or devotion by frontline staff, we recognized their desire to see team members work proactively to provide high-quality academic support; at the same time, we pointed to routine challenges facing

teachers and student supporters on a daily basis, coupled with scientific evidence about the impact of burnout on job performance. Conversely, when frontline staff interpreted poor communication as indicating indifference by program directors and site supervisors, we acknowledged their desire for increased oversight and support while detailing leadership's numerous (often invisible) responsibilities (e.g., grant writing, fundraising, networking with local agencies, paperwork to document program activities) that may interfere with more direct engagement. We leaned often on an "iceberg" analogy, suggesting to partners at all levels that their perceptions of peers were based largely on a small, observable segment of one anothers' work – the "tip of the iceberg" – and often may not account for significant effort that occurs outside of their view.

Lessons Learned

Creating time and space for disclosing work that occurred "below the surface" to one another generated more widespread appreciation for the respective contributions by all *Champions* staff to support the community, which in turn facilitated cooperative problem solving. Importantly, strategies from couples' therapy supported efforts towards encouraging effective communication. First, we used active listening skills – namely, reflection (e.g., "What I hear you saying is…" followed by a brief summary and an opportunity for the other person to correct or clarify our understanding of their message) – to establish a working knowledge of each individual *Champions* staff members' perspectives, goals, and lived experience. In doing so, we obtained a stronger foundation from which to facilitate conversations between individuals.

Second, we were careful to use the words "you think", to highlight when individuals were expressing their subjective experience of a situation rather than an

objective fact. (Note this overlaps with skills inherent to cognitive defusion, whereby flexible thinking expands opportunities for problem solving.) For example, the cognition, "My supervisor does not care about this issue" creates the perception that there may be no point to raising a concern; however, a shift in language – reflecting a corresponding shift in thought – to, "I do not *think* my supervisor cares about this issue" creates space to explore new opportunities (e.g., "Why not ask to what extent this is important to them, or where it falls in relation to other competing issues?").

Third, we applied the speaker-listener technique when asked to facilitate or mediate a discussion between staff members and/or across workforce levels (i.e., between frontline staff and site supervisors). Specifically, we opened the floor to one speaker at a time and requested that listeners attend fully to the speaker's message. Then, we asked listeners to summarize or reflect the speaker's statements and provide opportunities for clarification before responding. We mirror this in our own conversations with *Champions* staff members – an intentionally parallel process wherein we model the communication skills we then ask our partners to adopt. Progress toward opening communication was reflected by several examples: the site supervisor initiated more frequent end-of-day check-ins; supervisor also became more engaged with staff feedback; program directors engaged in discussion about frontline staff burnout. However, consistent implementation of larger components (e.g., regular meetings for leadership and frontline staff) remained challenging, and shifting leadership and staff turnover interfered with stability of improvements, though a number of staff members became more actively engaged in problem solving over time.

Theme 3: Responding to stress and emergent events impacting CBO staff

Champions operates under difficult conditions (e.g., high burnout and a combination of workplace and personal stress) in a community facing resource scarcity, health disparities, and frequent violent crime. In particular, we became acutely aware of the cascading impact of violence and loss on our partners over time. In an especially striking three-month period in our second year of partnership, one elementary-age student died from health complications and three high school students, former volunteers for pre-K programming, lost their lives to gun violence, sending waves of grief through the community. Though studies on mental health workers, nurses, and even scientists to a lesser extent have examined compassion fatigue and vicarious and indirect trauma (Baird & Kracen, 2006; Hunsaker et al., 2015), it is a relatively new literature and little is known regarding prevention and intervention (Bercier & Maynard, 2015; Ledoux, 2015). Even less is known regarding their incidence and impact on youth-serving frontline staff in non-healthcare settings, however investigators have long acknowledged the negative effect of burnout on implementation, job performance, and program quality (Damschroder et al., 2009; White, 2006). Time spent with frontline staff revealed the deeply personal impact left by loss in their community, as well as high levels of life stress and limited opportunities to engage in self-care.

Compassion-based Concepts

Though compassion fatigue and vicarious trauma lack clearly defined evidence-based interventions (Bercier & Maynard, 2015), a growing literature suggests compassion-oriented practice may reduce negative affect (Barnard & Curry, 2011) and promote well-being and self-care (Sinclair et al., 2017). As with the broader literature on

compassion, research on self-compassion – while more recent and less developed – indicates its association with individual well-being (Barnard & Curry, 2011) and emotion intelligence (Heffernan et al., 2010); improved conflict resolution, ability to compromise, and reduced self-subordination (Yarnell & Neff, 2013); and – in preliminary studies – compassionate care of patients in healthcare settings (Sinclair et al., 2017).

Similarly, recent commentaries propose that despite widespread workplace stress and suffering, systematic study of interpersonal dynamics – in particular peer response to colleagues' stress – remains scarce. Growing evidence, however, points to the beneficial impact of peer compassion at work to improve employee mental health, enhance feelings of value and increase organizational commitment (see Dutton et al., 2018 for a review). Moreover, investigators have found that receiving, providing, or even simply observing compassionate response in the workplace relates to more positive "sensemaking" (i.e., interpretations of motives, kindness, and capacity) about colleagues, the organization, and oneself (Lilius et al., 2008). Compassionate organizing directs resource distribution toward areas of need (Dutton et al., 2017), and promotes work attitudes and performance that support the common good (Haidt, 2002 as cited in Dutton et al., 2018). Models examining compassion in organizations often extend to elements that lie outside the influence of partnered consultation (e.g., institutional structure, organizational strategy); however, the strength of evidence highlighting the potential benefits of compassion on individual employees – either as participants or bystanders of supportive interactions – lends credence to the promise of compassion as a central process in workforce capacity building.

Application

In addition to our efforts to encourage further compassion among the staff for each other, we adopted a broad aim to model compassionate regard toward staff and encourage them to be compassionate toward themselves. We provided crisis intervention and grief support immediately following losses or community disruptions at the request of *Champions* leadership, site supervisors, and frontline staff, and promoted self-compassion via three components: regard the self with kindness and understanding in response to struggles and perceived failure (e.g., cognitive flexibility around expectations to perform under difficult circumstances); view lived experience as part of the larger human condition (e.g., cognitive restructuring to replace a harsh or self-critical lens); and observe painful feelings and thoughts mindfully (e.g., implementation of mindfulness practices such as meditation and body scans) (Neff, 2004). We incorporated regular check-ins with individual staff members about their personal mental health, incorporating joint non-judgmental evaluation of stress and strain, and encouraging small behavioral changes in self-care to support well-being and resilience (e.g., mindful minute, go for a walk, listen to music, engage in positive conversation not related to work). Anecdotally, our embrace of CORE principles led to deeper relationships with individual staff, stronger connections to local families, closer ties to the community, and – according to feedback from *Champions* – a perception at all workforce levels of our efforts as respectful of and responsive to individual stakeholders and the organization overall.

Lessons Learned

Our efforts to stay present with our partners, both through chronic organizational challenges and acute adverse events impacting the broader community, provided insight

and direct exposure to the day-to-day challenges and needs of staff and the children and families they serve. Most notably, while we maintained orgaanizational goals, identified and agreed upon together with our collaborators, we released ourselves from strict agenda-driven expectations for workshops and consultation. Though we came prepared with content that aligned with ongoing goals, we encouraged staff members to set topics based on the ebb and flow of their needs. Relatedly, we sought permission from staff members to check in around emergent and stressful life events, and personal and professional challenges, wanting to provide whatever support we could without overstepping individual boundaries. Despite limitations to time and privacy arising from the setting of our conversations, brief psychosocial support (for those interested) in the form of acknowledgement and reflective listening, paired with suggestions for strategies such as progressive muscle relaxation or meditation, facilitated deeper connections in partnership and acted as an assurance to staff at all levels that we cared about their wellbeing as individuals, not just as professional partners.

Theme 4: Facilitating self-care and peer support within the research team

Deeper connections, enriched relationships, increased time, expanded role, and greater personal investment translated to more proximity to adverse events, more frequent exposure to community violence and contact with grief and loss, including personal connections to adults and youth who passed away. As investigators, we hold greater access to resources, agency over responsibilities, and ability to disengage from local stressors at the end of the day – a privilege not enjoyed by *Champions* frontline staff, many of whom are local residents of the community they serve. At the same time, our presence on site during frequent lockdowns related to nearby gun violence made a

gradual but significant impact on both our understanding of our partners' lived experience, and our own mental health. Since the effects of vicarious and indirect trauma on investigators remains relatively unstudied (van der Merwe & Hunt, 2019), we turned to training, supervision, and workforce management research for insight.

Compassion-based Concepts

Prior literature speaks to the importance of compassion in supervision to temper the effects of indirect trauma (Knight, 2013), and the potential of self-compassion to produce positive outcomes related to provider depression and burnout, especially as a mediator in the relationship between these outcomes and self-critical perfectionism (Richardson et al., 2018). Additionally, Beaumont and Hollins Martin (2016) propose that Compassionate Mind Training might improve student therapists' well-being, reduce burnout and compassion fatigue, and promote resilience. Specifically, journaling, reflexivity, and group debriefing (e.g., opportunities to consider events in partnership non-judgmentally as a team, to seek support and guidance) help community-engaged researchers support ethical practice (Case, 2017; Chou & Frazier, 2019), consider consultation and partnership with objective distance, and track ongoing work to provide evidence of progress and counter self-critical thinking. Studies also have demonstrated the ability of the Gestalt two-chair technique to increase self-compassion and decrease anxiety and depression (Neff, 2004). Traditionally guided by a therapist, individuals conceptualize themselves as having two "selves" – a judgmental self, and a self that receives the judgment – that then engage in a "conversation" with the goals of gradually learning to recognize the impact of listening to their self-criticism, and working toward compassionately "defending themselves" in response.

Application

Accordingly, we (doctoral candidate Chou and faculty mentor Frazier) brought into clinical supervision a number of compassion-oriented intervention strategies (e.g., mindfulness, meditation, rhythmic breathing, cognitive defusion, compassionate self-regard). We allocated time to joint reflection and debriefing, and improving work-life balance as a means to maintaining the three "flows" of compassion: (1) outward flow (compassion *for* others); (2) inward flow (compassion *from* others); and (3) self-compassion (Gilbert, 2014 as referenced in Beaumont & Hollins Martin, 2016). Author Chou adopted journaling and reflexive practice and – with targeted learning in the functional importance and conceptual underpinnings of self-compassion – employed the Gestalt two-chair technique as a self-guided activity.

Lessons Learned

Broadly speaking, we are grateful for our rich collaboration and deep connections with the *Champions* team; however, we were – in truth – unprepared for the potential impact of increased personal relevance and exposure to local incidents such as gun violence and loss. Moving forward, we plan to implement a standard practice of journaling and both individual reflexivity and group debriefing at the start of a partnership. Further, we aim to incorporate compassion-based literatures with particular focus to self-compassion as a preventive measure and to build resilience among community-engaged researchers. Lastly, we will continue incorporating conversations about work-life balance, both as a general topic of professional development and as a regular check-in to course correct as needed, within our research team and with trusted professionals who might bring objective support and fresh perspective.

Discussion

Compassion-Oriented Reflection and Engagement evolved as a direct response to individual, organizational, and community-wide challenges; it framed our experience and advanced a more holistic integration of empathy and science. In this way, CORE has informed our practice to promote wellness in *Champions*' personal and organizational functioning and – perhaps most importantly – revealed opportunities to extend our efforts as academic collaborators beyond conventional transport of traditional evidence-based intervention packages. Our role and function exceeded the original expectations of our partnered work and as a result, we expanded our practice beyond traditional prospective research methodology often found in DIS science. While we continued to inform each step through quantitative and qualitative means (e.g., group discussions with staff, questionnaires and surveys on burnout, job resources and control) and have worked to maintain a rigorous retrospective on our activities through detailed field notes and debriefing discussions, the introduction of CORE components to our work has resulted in considerable growth. Robust literatures speak to the high potential for compassion-based content as a lever for change to enhance the experience and impact of community-engaged DIS science, and future work is poised to examine CORE as a driver of consultation and potential mechanism for community-wide change.

Though systematic infusion of compassion-oriented literature into our work came later in our partnership with *Champions*, its values inherently align with long-standing efforts of our team. Just as we have called for a redefinition of traditional research concepts like feasibility (Frazier et al., 2008) and sustainability (Frazier et al., 2019), historically we have placed strong emphasis on the vision, perspectives and lived

experience of partnering community stakeholders. Consultative decisions lean heavily toward highlighting *Champions'* existing strengths and addressing needs and barriers that partners identified as most urgent, rather than pushing forward adhering to original – even collaboratively determined – implementation goals. Our efforts to operate flexibly come from our desire to bridge our own mental health and youth services expertise with our partners' knowledge and proficiency in youth programming and community engagement that carries equal – if not greater – weight in driving collaboration. CORE aligns well with these aspirations, as it directs consultation toward acknowledgement, empathy, empowerment and action around local strengths, challenges and perspectives.

In many ways, CORE has stretched us beyond our expertise and led our work to areas of highest priority for our partners, allowing us to search for, translate and mobilize science that bears most directly on their expressed needs. Reliance and focus on CORE has allowed us to suggest and model self-care practice that we hope will generate sustainable and lasting change for *individual* staff. While conceptualizing sustainability in this way may differ from traditional notions of *organizational* change, research documenting high turnover in CBOs with transient, pre-professional staff (Frazier et al., 2019) indicates potential for individual professional and personal development to have even greater influence than strategies targeting organizational structure and procedure. As teachers, student supporters, and other full- and part-time frontline providers, aids, coaches, advocates and instructors cycle through employment with community-based organizations, consultation that builds their individual capacities *with their transience in mind* may support a larger public health goal of reducing stigma and disseminating scientific knowledge and impact. Hence, focusing on individuals' personal and

professional development instead of change to organizational culture and structure may capitalize on the transient nature of community workforces, making predictable turnover more an opportunity than an obstacle in community-engaged implementation science.

Perhaps most notably, our conversations with *Champions* team members across hierarchical levels have revealed a qualitative appreciation for the longevity and depth of our partnership. Time and again, partnered staff voice feedback that converges around the strength of our having arrived on site, observed a vast array of challenges, and "rolled up our sleeves". Frontline staff in particular have noted the difference between our willingness to stay present in their work and the impressions left by previous collaborators who have arrived with strict agendas, initiated and adhered rigidly to their planned work, and discontinued partnership if resources were too few, challenges too great, enthusiasm too limited or goals and priorities too misaligned. Though we recognize a need to conduct more rigorous empirical examination of causal effects and mechanisms, we believe CORE principles and processes have allowed for the development of a rich and responsive partnership, built on a foundation of mutual trust and respect, and offering ongoing lessons in DIS science of "what matters, when" in the transport of evidence-based practices (Schoenwald, Sonja, K.; Hoagwood, 2001).

IV. DESIGNING WISE INTERVENTIONS: USER-CENTERED DEVELOPMENT OF AN EMOTION-ENHANCED CHILDREN'S BOOK

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Abstract

Poverty negatively impacts children's academic skills, and social, emotional, and behavioral health. Wise interventions leveraging naturally occurring, intrinsically beneficial routines such as parent-child book reading (PCBR) may provide resource-efficient avenues by which to reduce disparities. The current study employed the Social Marketing Assessment and Response Tool (SMART Model) in the context of an academic-community partnership to guide the design, iterative refinement, and evaluation of a PCBR intervention (i.e., an emotion-enhanced children's book, or picture book infused with opportunities to discuss and describe emotions). Findings reflect the promise of social marketing strategies coupled with community-engaged research to yield acceptable and usable wise interventions.

Keywords: community-engaged research; poverty; wise interventions; design thinking; socio-emotional development

Introduction

Poverty exerts well-documented detrimental effects on children's mental health and emotional wellbeing through a variety of interconnected pathways (Yoshikawa et al., 2012). Youth in low-income households present with higher lifetime prevalence rates of psychosocial diagnoses, face increased risk of neighborhood violence exposure, and receive less parental support towards socio-emotional development and academic achievement as a function of greater material hardship and family stress (see Yoshikawa et al., 2012 for a review). Relatedly, a robust literature highlights disparities in academic skills that disadvantage preschool- and kindergarten-age youth living in households and

communities impacted by resource scarcity (Barnett, 1998; Rouse & Fantuzzo, 2009; Yoshikawa et al., 2016).

Early school success predicts a range of childhood outcomes across multiple domains. In a meta-analysis examining 70 longitudinal studies, La Paro and Pianta (2000) identified predictive relationships between academic assessments in kindergarten and preschool with academic, cognitive, social, and behavioral outcomes in first and second grade. Furthermore, prior work evaluating the impact of preschool programming underscores positive effects towards reducing grade retention and special education placement rates, improving academic achievement in middle school, and increasing frequency of high school graduation by 11.7 percent (see Yoshikawa et al., 2016 for a review). Though research has yielded a number of evidence-based policies and programs to temper the negative effects of poverty on young children, less is known regarding their affordability for organizations and the communities they serve, their effectiveness and opportunity cost for participating families, or the robustness of the support they provide across the multicultural spectrum of low-income households. By contrast, wise interventions leveraging naturally occurring, contextually relevant mechanisms of change may provide resource-efficient, broadly acceptable opportunities to promote positive outcomes.

A Platform for Wise Intervention: Parent-Child Book Reading

Walton (2014) describes wise interventions as those defined by three characteristics: (1) "psychologically precise" (i.e., their intended mechanism of change is well-founded in specific theory); (2) recursive (i.e., they reinforce small but repeated changes over time); and (3) context dependent (i.e., their effectiveness relies on the

relevance and importance of the target process with the intended end-users). Notably, wise interventions produce significant long-term changes through relatively low-burden adjustments often leveraging ongoing routines and practices (Walton, 2014), making them particularly suitable for use by communities and households faced with resource scarcity. To do so, they rely on the identification and effective use of contextually relevant psychological processes.

Parent-child interactions represent one such process, as a robust literature highlights their impact on preschool readiness and success through mediators of parent and child mental health (Bagner et al., 2014; Iruka et al., 2012). Research also documents the significant influence of parent modeling of emotion competence and use of emotion coaching (e.g., productive engagement with child emotional expression through feedback and support, as opposed to rejection or invalidation of expressed emotion) on subsequent emotion competence in preschoolers (Denham et al., 1997), which in turn predicts early school readiness (Denham, 2006). Thus, wise interventions that encourage positive parent-child interaction with attention to socio-emotional support and development may prove particularly effective in promoting healthy academic and socio-emotional trajectories, especially for families living in under-resourced communities.

Parent-child book reading (PCBR) provides a particularly malleable, impactful opportunity to engage in an intrinsically beneficial, nurturing and supportive parent-child interaction that promotes school readiness, literacy, and language learning (American Academy of Pediatrics, 2014; Ferretti & Bub, 2017). In fact, PCBR yields such widespread positive impact that the American Academy of Pediatrics (2014) recommends literacy promotion as a “best practice” in pediatric settings. Existing literature presents

the utility of storybooks with targeted content for advancing specific areas of learning. Investigators have demonstrated storybooks' ability to expand child readers' spatial language (Rohlfing & Nachtigäller, 2016), advance their mathematical performance (van den Heuvel-Panhuizen et al., 2016), and challenge gender stereotypes (Abad & Pruden, 2013). Additionally, adult co-readers can augment benefits towards language learning and literacy by implementing dialogic reading– or the use of questions and active discussion of book language and content to engage the child as an active listener (Arnold et al., 1994; Whitehurst et al., 1999).

Moreover, storytelling and reading routines confer a significant and positive effect on child socio-emotional outcomes (Ferretti & Bub, 2017). Meta-analytic findings indicate that children experience equal benefits to psychosocial outcomes from programs supporting PCBR regardless of socioeconomic disadvantage, race and/or ethnicity, maternal education, and child behavioral problems or language delays (Xie et al., 2018). Longitudinal research indicates that children whose parents more frequently label and explain character emotions during PCBR at age 3.5 demonstrate more advanced understanding of emotions, or affective knowledge, at age 5 (LaBounty et al., 2008). Open trial results also show that when storybook characters model effective parenting skills (i.e., emotion regulation, problem solving, providing acceptable choices), parent readers utilize them with greater frequency (Bauer et al., 2012). These data indicate opportunities to advance parent meta-emotion philosophy (PMEP) – or parents' perspectives on, responses to, and coaching of child emotions – intentionally through picture books.

In addition to these overlapping functional benefits, picture books carry a relatively low financial cost, with recent estimates pricing trade and mass-produced paperbacks at $8-$12 on average (School Library Journal & Follett Corporation, 2019). The 2017-2018 National Survey of Children's Health found that among families living at or below the poverty line, 90.9% reported someone having read with a young child living in the home at least once in the past week, and 47.1% of respondents endorsed doing so 4 or more times in the past week (Data Resource Center for Child and Adolescent Health, 2019). These findings highlight PCBR's potential affordability and existing relevance for low-income households; however, its implementation as a platform for wise intervention may require engagement with end-users to inform contextual adaptations that advance acceptability, usability, and effectiveness.

Social Marketing for Wise Intervention Development

Social marketing research aims to drive behavior change, emphasizing and relying on local feedback to identify relevant costs and benefits as perceived by the target audience and optimizing the exchange (i.e., promoting benefits, minimizing costs) of a given intervention (Andreasen, 2004; Grier & Bryant, 2005). Using traditional consumer marketing strategies and tools, investigators segment their stakeholders (i.e., end-users), creating subgroups based on needs, resources, existing values and behaviors, and/or lifestyle. They then work within segments to establish an understanding of the "marketing mix" relevant for their intended behavior change, also known as the four P's: (1) Product – the targeted behavior change and its benefits; (2) Price – the expected cost of behavior change, including financial cost and extending to intangible investment (e.g., of time, effort, opportunity cost); (3) Place – locations where end-users can receive or

engage in the behavior change intervention, including considerations of intermediaries such as community organizations and local champions who might drive dissemination; and (4) Promotion – strategies used to advertise and encourage use of the behavior change intervention.

The Social Marketing Assessment and Response Tool (SMART) Model represents a specific framework that researchers have used to create, adapt, and refine a wide range of programs for diverse populations (Neiger & Thackeray, 2002; Thackeray & Neiger, 2003). Researchers have described the potential of the SMART Model in developing culturally robust programming for health conditions such as diabetes that impact diverse populations (Thackeray & Neiger, 2003). Furthermore, the SMART Model has seen broad application across a number of fields and populations, including the development of diet and exercise programming for adolescents (Neiger & Thackeray, 2002) and efforts to increase use of personal protective equipment among construction workers in Iran (Shamsi et al., 2016).

Current Study

This article describes the development process for a PCBR intervention, through which authors integrated scientific literatures and engaged local stakeholders in providing feedback for context-specific adaptation. This project employed the SMART Model to design an emotion-enhanced children's book – a picture book enriched with opportunities to describe and discuss emotions (i.e., PCBR intervention) – in partnership with stakeholders from a local community with high rates of poverty and violent crime. Authors obtained initial impressions regarding a potential PCBR intervention, developed a prototype, sought additional end-user feedback to inform refinement, and examined

acceptability of the resulting emotion-enhanced children's book using an online survey. Research activities aimed to examine the following questions: (1) What do intended end-users prefer in an emotion-enhanced children's book (i.e., character design, setting, story content, use and presentation of specific emotion words, style of illustration, aspects of the book such as length)?; and (2) Can a sequence of development and iterative refinement guided by the SMART Model and conducted in the context of community partnership result in an acceptable and usable PCBR intervention?

Methods

Research Design: The Social Marketing Assessment and Response Tool

The SMART Model drives social marketing research through a series of seven phases, grouped into four stages (see *Table 1*) (Thackeray & Neiger, 2003). In the Preliminary Planning stage (SMART Phase 1), investigators synthesize existing literature, identify a target problem and related goals, and seek out intended end-users. The Formative Research stage (SMART Phases 2-4) consists of audience segmentation and engagement with stakeholders to gain an understanding of the "marketing mix". Feedback informs the design of an initial prototype in the Development stage (SMART Phase 5), which is used in pretesting to obtain end-user insights towards further refinement. The resultant intervention is provided to members of the target audience and assessed in the Implementation and Evaluation stage (SMART Phases 6-7). The Florida International University Institutional Review Board approved study procedures across all stages.

SMART Phase 1. Preliminary Planning

Community partnership for stakeholder engagement

During preliminary planning, authors reviewed existing literature regarding the impacts of resource scarcity on early childhood school readiness and socio-emotional development, identified parent-child interactions – and more specifically, PCBR – as a potential lever for change, and set the development of an emotion-enhanced children's book for preschool children affected by resource scarcity as the primary goal of this work. Accordingly, investigators initiated a partnership with *Leaders* (pseudonym), a non-profit organization supporting a predominantly Black/African-American community with a high crime rate and proportion of households at or below the poverty line (The Metropolitan Center, 2016). *Leaders* utilizes a block-by-block approach, providing services for children and families within their catchment area such as academic support, health and wellness initiatives, and connection and advocacy to local agencies. Collaboration spanned two broad goals: engagement with *Leaders'* afterschool programming for children enrolled in preschool through 8th grade to provide workforce development workshops and in-vivo coaching (see Chou & Frazier, in review); and recruitment of parents/caregivers and teachers/childcare providers to participate in formative research toward designing the emotion-enhanced children's book. Activities toward collaboration across both goals occurred at the *Leaders* administrative offices and on site in their afterschool program, hosted by a local K-8 public school.

SMART Phases 2-4. Formative Research

During Formative Research, investigators engage with proposed end users – in this case, parents, caregivers, and educators working with young children – to assess their

needs and perceived costs and benefits to various potential interventions to address those needs (Phase 2, Audience Analysis); discover the channels of communication best suited to reach the target audience and deliver proposed intervention (Phase 3, Channel Analysis); and establish an understanding of the "marketing mix" along with potential supporting strategies and sources of competition for behavior change (Phase 4, Market Analysis).

Participants

Fourteen stakeholders (M_{age} = 36.50, SD_{age} = 11.80; 85.7% female, 100% Black/African American) participated, including ten parents/caregivers and four educators/childcare staff who provided informed consent and completed quantitative measures. Of these, five parents/caregivers and four educators/childcare staff engaged in focus groups or interviews. *Table 2* presents additional sample characteristics.

Procedures

Research staff approached parents, caregivers, educators, and childcare professionals during *Leaders* afterschool programming hours and end-of-day pick-up to describe study goals and procedures. Eligible participants were assured that decisions regarding consent would remain anonymous and have no impact on access to other Leaders activities or university-facilitated staff support. Interested stakeholders either provided informed consent and completed paper-and-pencil quantitative questionnaires on-site with support from research staff or took consent and questionnaire packets home to complete at their convenience. Participants could ask questions and return completed materials to research staff at several scheduled times during *Leaders* programming. Participants also provided contact information to schedule an individual interview or

attend a focus group based on their availability. Focus groups and interviews occurred over the course of eight weeks and included 1-3 participants and 1-2 facilitators. They ranged from 36.75 to 52.35 minutes (M = 44.22, SD = 6.91) and while no financial compensation (i.e., gift cards) was provided, facilitators brought a meal for each group to show their appreciation for stakeholders' time. With permission from *Leaders*, focus groups took place in empty classrooms at the afterschool site during programming hours. The one individual interview took place at nearby *Leaders* offices. With participants' knowledge and consent, facilitators audio-recorded focus groups and interviews. Audio-recordings were professionally transcribed, then checked by the first author to ensure accuracy.

Measures

Demographic Questionnaire. All participants completed a brief survey to provide basic demographic information including age, gender, race/ethnicity, highest level of education completed, employment and marital status. Parents/caregivers answered additional questions related to household (e.g., number of adults and children in the home, annual income, languages spoken in the home in addition to English) and their oldest child within the study age range (e.g., age, gender, race/ethnicity, need for early intervention services). Educators and childcare staff answered additional questions related to the grades they teach, their years of professional experience, and their relationship to the community they serve (i.e., whether or not they grew up and/or currently reside there).

Patient Health Questionnaire for Depression and Anxiety (PHQ-4). The PHQ-4 (Kroenke et al., 2009) consists of four items loading onto two factors (depression and

anxiety). Developed through the combination and adaptation of two scales – the PHQ-2, a two-item scale examining the core criteria for depression, and the Generalized Anxiety Disorder-7 scale (GAD-7) – the PHQ-4 provides a psychometrically valid and internally reliable "ultra-brief tool" (p. 618, Kroenke et al., 2009) for detecting anxiety and depression. The PHQ-4 uses a total score of all item ratings, up to a maximum of 12, to identify respondents in the normative range (total score of 0-2), mild elevations (3-5), moderate elevations (6-8), and severe elevations (9-12) in symptoms of depression and anxiety (Kroenke et al., 2009)

Emotion-Related Parenting Styles – Short Form (ERPS). The ERPS (Paterson et al., 2012) was adapted from the Emotion-Related Parenting Styles Self-Test, an 81-item measure of parent meta-emotion philosophy. While the ERPS differs from the original long form in its final subscale structure, psychometric evaluation confirms its validity in measuring emotion-related parenting styles. Short form subscales measure four domains of parent meta-emotion philosophy: (1) emotion coaching practices (EC; n = 5 items; e.g., "It's important to help the child find out what caused the child's anger"), (2) parental rejection of negative emotions (PR; n = 5 items, e.g., "When my child gets sad, I warn him or her not to develop a bad character"), (3) parental acceptance of negative emotions (PA; n = 5 items, e.g., "Children have a right to feel angry"), and (4) the uncertainty and ineffectiveness (UI) subscale (n = 5 items), referring specifically to parents' perceived self-efficacy in supporting their children around emotions. Respondents indicate the degree to which each item is Always False (1) to Always True (5) on a five-point rating scale. Investigators sum items loading onto specific domains to

obtain scores for each subscale. Subscale scores are calculated by adding the ratings across items loading onto each factor (Paterson et al., 2012).

Parent Reading Beliefs Inventory (PRBI). The PRBI (DeBaryshe & Binder, 1994) examines parent perspectives on book reading, focusing broadly on (1) respondents' affect related to PCBR, (2) beliefs that children should participate actively in PCBR, (3) barriers to PCBR, (4) perspectives on parents' role as teachers through PCBR, (5) extent to which respondents felt children learned information from picture books, (6) overarching beliefs that external stimuli impact children's language learning, and (7) views on whether book reading represents an appropriate platform for instruction. Respondents use a four-point Likert scale (Strongly Disagree, Disagree, Agree, Strongly Agree) to indicate their alignment with each item. Though PRBI items examine reading beliefs across seven relevant areas, they form a single factor that speaks to beliefs about reading aloud with children. Accordingly, DeBaryshe and Binder (1994) recommend summing all 42 items and presenting both a mean total score and a mean item score. The PRBI was validated with a low-income sample (n = 155, 63% black, 36% white, 1% Asian; mean family income between $10,000 and $15,000 per year), and it demonstrates good internal consistency and test-retest reliability (DeBaryshe & Binder, 1994).

Focus Group and Interview. Focus groups and interviews began with an overview of the project and its purpose. Facilitators then used a semi-structured guide to ask about two themes: (1) current practices related to PCBR and child socio-emotional learning; and (2) perceived goals, needs, and obstacles to the proposed PCBR intervention. Facilitators prompted participants to describe their ongoing home and classroom reading routines and practices, including barriers, motivators, and resources

(e.g., “What does book reading look like at home/in your classroom? How do you choose the books you purchase and read to your children/students? What types of things interfere with your reading routines?”). Additionally, participants were asked to discuss their perspectives and responses to their children’s feelings with particular focus on negative emotions (e.g., “What do you do when your child is upset? When you respond that way, what is your goal? What do you think your children/students need in terms of socio-emotional learning, and do you think a broader emotional vocabulary would be helpful for them and for you?”) Facilitators then guided participants to discuss the proposed emotion-enhanced children’s book.

First, participants were asked to express perceived need and acceptability of the PCBR intervention in their homes or classrooms, and broadly in their community (i.e., “Do you think a book like this would be useful to use with your children/students? Do you think other parents/caregivers/educators in the community would want to use a book like this?”). Second, participants were asked to weigh in on story characteristics such as setting (e.g., realistic or fictional settings, including the school or home environment, important features such as representativeness to their local community), narrative elements (e.g., overarching themes or messages to incorporate in the book, specific areas of growth that they would like to see addressed in an emotion-enhanced children’s book), and character attributes (e.g., human characters versus anthropomorphized animals; racial, ethnic, and cultural representation). Lastly, facilitators asked participants to consider features of the book with relevance to usability and engagement (e.g., preferences regarding the title, words per page, length of the book, elements with

particular impact on child engagement in joint reading such as the specific vocabulary or illustrations).

Analytic Plan

Recent literature describes the strengths of rapid qualitative analysis in providing cost-effective, timely, and – importantly – readily actionable feedback (Gale et al., 2019). To inform and advance intervention design with multiple iterations of evaluation and refinement within an abbreviated timeline, investigators employed rapid qualitative analysis adhering to three primary strategies. First, to maximize consistency and continuity, and minimize the loss of impactful feedback, the book designer (first author) facilitated all groups. Second, investigators summarized transcripts and facilitator notes with attention to content with particular relevance to the current project (e.g., preferences for character features, story elements, and length of the book) after each focus group or interview. Lastly, while authors retained original open-ended questions across all discussions, they incorporated information from each focus group or interview into subsequent ones. For example, members of the first focus group expressed interest in generating a storyline that teaches young children about community and peer support; thus, when participants in the second focus group raised interest in a book about bullying, facilitators prompted discussion to gauge interest regarding a topic that combined the two suggestions – bystander intervention in response to bullying and peer conflict.

Results

Surveys. Quantitative data included a small percentage of missing items (none on the PHQ-4; 1.02% of PRBI items – six responses across three participants, with no single respondent missing more than three; 0.36% of ERPS items – one response from a single

participant), accounted for via ipsative mean imputation (Imai et al., 2014; Schafer & Graham, 2002). Total scores on the PHQ-4 indicated that among participants (n = 14), 13 (92.86%) fell within the normative range of anxiety and depression symptoms (total score 0-2), and one (7.14%) indicated mild elevations (total score = 3). The mean PRBI total score was 148.93 (SD = 11.29), and the mean item rating (M = 3.55, SD = 0.27) demonstrated that on average, respondents agreed with the views and beliefs expressed throughout the measure (i.e., demonstrating positive regard for PCBR, valuing children's role as active participants and respondents' roles as teachers, endorsing sufficient resources and low barriers to PCBR, and acknowledging PCBR as an appropriate platform through which to advance children's knowledge and language learning).

Participants obtained a mean total score of 22.71 (SD = 2.23) and a mean item rating of 4.54 (SD = 0.45) on the ERPS emotion coaching subscale (EC), demonstrating agreement with emotion coaching perspectives and practices. They obtained mean total score of 14.96 (SD = 4.22) and a mean item rating of 2.99 (SD = 0.84) on the ERPS parental rejection of negative emotion subscale (PR), as well as a mean total score of 15.36 (SD = 5.09) and a mean item rating of 3.07 (SD = 1.02) on the ERPS parental acceptance of negative emotion subscale (PA), indicating neither strong approval nor strong disapproval of either approach to negative emotions. Further, standard deviations for both subscales underscore slightly greater variability within the sample in responding to these items. Lastly participants obtained a mean total score of 8.79 (SD = 5.70) and a mean item rating of 1.76 (SD = 1.14) on the ERPS UI subscale, pointing to disagreement with items representing uncertainty or feelings of ineffectiveness in supporting children's emotion socialization on average, but revealing substantial variability within the sample.

Focus Groups and Interviews. Qualitative data directly informed the PPBR prototype, specifically theme, setting, characters, and length. Insights from stakeholders (n = 5) converged around an interest to highlight the importance of community, sharing, and respect for others. Further, participants (n = 7) identified a desire to focus on bullying with explicit mention of bystander intervention and peer support. Accordingly, participants (n = 6) described a preference for real-world versus fantasy story settings, specifically the school environment as they felt young readers would find it particularly relatable. Similarly, while some gave it low importance in comparison to other contributors to child engagement in joint book-reading (e.g., adult reader's enthusiasm), many stakeholders (n = 6) voiced enthusiasm for a book featuring children of diverse racial, ethnic, and cultural backgrounds. Stakeholders (n = 5) also identified book length and amount of text as barriers to use (i.e., books that were too long, and pages with too much text, present obstacles to use), reporting both the challenges of finding time and energy to read with their children at the end of the day and the variability in literacy level of both adult readers and preschool- and kindergarten-age youth. Thus, the authors followed recommendations to stay within a ten-page limit and worked to use accessible language and sentence syntax. Importantly, parents, caregivers, educators, and childcare staff (n = 6) also converged around the significant need for colorful, dynamic illustrations to engage young readers.

Phase 5. Development

Prototype Design

SMART Phase 5 (Development) uses findings from Formative Research to design prototype intervention components and materials, engages end-users in pre-testing to

obtain additional feedback, and incorporates new insights into further refinement towards a full product. Relying on prior training and experience in art, illustration, and design, supplemented by print and online resources, the first author created a rough representation of one emotion-enhanced children's book (*Figure 1*). Before seeking end-user feedback on prototype components, however, investigators sought consultation from a small number of professionals in the fields of art history and children's media. This coupled with recommendations provided in an online webinar led by a current children's book author and illustrator (Chung, 2018) informed two adjustments to the Development stage.

First, authors decided to present prototype components approaching the intended "look and feel" of a finished intervention. Considering participants' emphasis on the importance of illustration to engage young readers, using prototypes lacking polish risked drawing focus to the quality of the draft, and away from impactful characteristics such as elements of the story and setting. Thus, the first author decided to produce storyboards – or sets of thumbnail images showing the progression of the proposed children's book at a smaller scale – to allow for higher quality images without overextending resources. Additionally, Chung's (2018) recommendation that aspiring authors and illustrators seek unbiased opinions from individuals outside of their personal networks raised an important issue. While investigators placed substantial value on stakeholders' feedback, ongoing partnership with *Leaders* and the subsequent relationships that the authors built in the local community potentially impacted participants' comfort in giving objective, impartial comments on the work – especially recommendations for necessary changes. In an effort to balance the strength of existing collaboration with the need to gain both positive and

negative impressions, investigators shifted to a plan to develop multiple prototype versions to give participants the ability to indicate their preferences for certain elements over others, in the event that they found that more acceptable than providing criticism directly.

Ultimately prototype designs included sixteen child characters, twelve teacher characters, and three storyboards illustrating setting and story. To prioritize relatability, inspiration for physical (e.g., hairstyles, clothing) and social (e.g., peer interactions) elements came from the author's experience with children, families, and teachers in the *Leaders* community. Notably, storyboards each presented a different narrative aiming to capture different aspects and teaching opportunities while retaining lessons and themes related to bullying and peer support (see *Figure 2* for examples). Story 1 presented an argument between two students initiated by an unintentional accident (peers bumping into each other in line), illustrated appropriate bystander response (a third student asking the teacher for help with peer conflict), and included a teacher-led deep breathing exercise. Story 2 showed a student becoming upset after a peer's impulsive – but not purposefully malicious – behavior (knocking down a building block tower), demonstrated peer support (a third student comforting his crying classmate), and included an example of teacher-led progressive muscle relaxation. Story 3 featured a student who arrived at school in an irritable or unhappy mood (presumably from events happening at home or otherwise outside of the classroom), leading to conflict following a minor incident (another student taking his ball on the basketball court), and resulting in *peer*-led conflict resolution whereby a third student intervened and encouraged her classmates to play together.

Participants

The sample consisted of five stakeholders who participated in Formative Research focus groups and interviews (M_{age} = 46.75, SD_{age} = 16.70; 100% female, 100% Black/African American), including one parent/caregiver and four educators/childcare staff. Additionally, five new end-users (M_{age} = 34.20, SD_{age} = 11.43; 60% female, 100% Black/African American), including two parents/caregivers and three educators/childcare staff, participated in prototype pre-testing.

Procedures

Investigators contacted Formative Research participants by phone or approached them at *Leaders* programming to schedule an interview for the Development stage. Recruitment for new participants followed procedures described in Formative Research. New participants completed the four paper-and-pencil surveys: Demographic Questionnaire, PHQ-4, ERPS, and PRBI. Individual interviews took place in private rooms (e.g., empty classrooms and meeting areas, rooms used primarily to house academic and recreational materials and equipment) and semi-private areas (e.g., tables in the school's courtyard and library) at *Leaders* afterschool programming site. The first author conducted all ten interviews, which ranged from 12.20 to 36.87 minutes (M = 23.88, SD = 8.85). Interviews were recorded with participants' knowledge and consent, and professionally transcribed. Stakeholders received a $10 gift card as compensation for their time.

Measures

Interview. A semi-structured guide, accompanied by prototype components, was used to elicit feedback on the book. The facilitator presented the sixteen child characters,

first asking participants to choose and rank their favorite three in order of preference. They were then asked to provide a rationale for their selections, comment on any other characters in the set, identify any characters they would not want to see in the final book, and explain their reasons. The process was then repeated with the twelve teacher characters. The facilitator then presented each of the three storyboards, describing the narrative depicted in the panels. Participants again ranked stories in order of preference; explained what informed their decision; elaborated on the stories, settings, and illustrations; and highlighted any elements they particularly enjoyed or disliked. Next, the facilitator presented four emotion words – happy, sad, angry, and scared – selected for their representativeness of the basic emotions (Tracy & Randles, 2011). Participants described their expectations regarding parents', caregivers', and educators' openness to using these specific emotion words in conversations with young children and were invited to offer alternatives.

Analytic Plan

Investigators applied a simple scoring system to character and storyboard rankings, assigning three points for each first-place ranking, two points for each second-place ranking, and one point for each third place-ranking. The summed scores informed selection of prototype components for the completed emotion-enhanced children's book. Rapid qualitative analysis was used to extract and synthesize stakeholder insights, which were used to explain and expand on numeric rankings of prototype components as needed. Findings informed modifications, addition of new elements, and refinement of the final picture book.

Results

Surveys. Three respondents did not complete the PHQ-4. There were no missing data among those who completed the PHQ-4, nor were any items missing on the ERPS. Ten PRBI items were missing across 8 participants (no more than two items missing for any single respondent), and ipsative mean imputation was applied. In addition to the three (30%) cases who did not complete the PHQ-4, total scores identified six (60%) in the normative range (total score 0-2) and one (10%) with moderate elevations (total score = 6). The mean PRBI total score was 150.54 (*SD* = 8.04), and the mean item rating (*M* = 3.58, *SD* = 0.19) demonstrated that on average, respondents again agreed with the views and beliefs expressed in the measure (i.e., respondents experience positive affect related to joint book reading; agree that children should take an active role as readers; feelings of efficacy in their roles as teachers during PCBR; and beliefs in PCBR as a platform for children to learn new information).

Participants obtained a mean total score of 21.90 (*SD* = 2.38) and a mean item rating of 4.38 (*SD* = 0.48) on the ERPS EC subscale, indicating agreement with statements reflecting emotion coaching practices. They obtained a mean total score of 13.70 (*SD* = 3.95) and a mean item rating of 2.74 (*SD* = 0.79) on the ERPS PR subscale; and a mean total score of 16.40 (*SD* = 3.75) and a mean item rating of 3.28 (*SD* = 0.75) on the ERPS PA subscale, demonstrating neither strong agreement nor disagreement with perspectives aligning with adult acceptance or rejection of children's negative emotions. Participants obtained a mean total score of 8.90 (*SD* = 4.01) and a mean item rating of 1.78 (*SD* = 0.80) on the ERPS UI subscale, indicating disagreement with experiences

representing uncertainty or feelings of ineffectiveness in supporting children's emotion socialization.

Interviews. Both new and returning stakeholders expressed excitement for the prototype components. Eighty percent of participants (n = 8) voiced unprompted, general enthusiasm and/or interest in purchasing a book for use in their homes or classrooms (e.g., "I love it. I love the idea and the concept", "I hope you come out with these books. These books are amazing.", "Talk to me. You have a buyer", "I can't wait to get my book!"), providing preliminary evidence of the overall acceptability. Similarly, all participants (n = 10) described prototype components as relatable to or resembling the local community, from student (e.g., "This is basically how they dress and how they have their hair and basically like their attitude…Yeah, that's funky.") and teacher characters (e.g., "[Teacher no. 8 is] relatable. [Teacher no. 10], it's the same thing, but for a female's perspective."), to story narrative (e.g., "Honestly, these are some great stories because these children can definitely relate to them.") and setting (e.g., "The backgrounds are perfect.", "You do have the playground setting and you have objects that—you have the heroes and the manipulatives that children have today… they're all relatable in a sense, but this is what children actually do in school settings.") Comments from the majority of end-users (n = 8) demonstrated enthusiasm about the illustration style and content (e.g., "I love the artwork…I love the action. I love it.", "It's eye-catching, if you ask me, the color, the background. Like you said, we use our own skin color kids, animations and all, but overall, it's eye-catching. I'll have interest in it.").

Insights around the incorporation of local characteristics reflected the importance of relevance to both real-world and aspirational elements. Stakeholders endorsed

characters based on both their resemblance to area professionals and residents as previously described, but also provided feedback driven by aspirational goals – things to which they wanted to expose their children and students, such as positive male role models (e.g., "The presence, male presence, within the school is a big one…and I see the reason, the need of it. With [Teacher no. 3], not only is he a male, but he stands out.") and attainable professional achievement (e.g., "This is good for representation to show—'cause he looks young but he's also teaching…He looks pretty confident. He has a book bag on. I'm assuming he went to college…Having a young face be in any kind of career model is usually good for people to be like, 'Oh, that's attainable, and that's attainable really soon.'") For one stakeholder in particular, these influences – creating a representative setting versus one that reflects what she wants her student readers to see – conflicted in a meaningful way. She raised concerns that graffiti in the background panels of Story 3 could inadvertently signal an acceptance of vandalism (e.g., "Maybe [the graffiti will] draw their attention to maybe think it's okay to, you know…I know we see graffiti in our everyday life, but I don't know… It's not the best reflection.") Subsequent interviews with other potential users informed our decision to remove graffiti from illustrations, replacing them instead with murals and wall art – a common source of pride in community schools – and other classroom fixtures such as posters and school rules.

Rankings spoke to overall approval of child characters, teacher characters, and storyboards. Among the children presented, 81.25% (13 characters) received at least one endorsement from stakeholders and 50% (8 characters) were ranked first by at least one participant. Similarly, 75% of teachers (9 characters) received at least one endorsement, and 50% (6 characters) were ranked first by at least one participant. Each of the three

storyboards received at least two first-place rankings and two second-place rankings. Because end-users found prototype components broadly acceptable, investigators implemented a scoring system supplemented by qualitative feedback to select specific characters and stories for inclusion in the final product. Student scores nominated three female characters. However, stakeholders spoke to the value of showing peers of different genders collaborating and resolving conflict together; thus, the two highest ranking female students and most highly ranked male student were selected. Teacher scores resulted in a tie between two top choices; however, concerns raised that one of them may seem intimidating (given his large stature) informed a decision to select the other. Lastly, despite rising to the top based solely on point totals, comments on Story 3 from several participants suggested that while older children may find it relatable, younger children might not. Respondents also specified that while they found the opening – with a student having experienced conflict or challenges outside of school, leading to irritability and frustration as they entered the classroom – relatable as a common occurrence in their community, they worried that some readers might find it distracting or confusing. Thus, while the first author retained the basic structure and intent of Story 3 in drafting the final emotion-enhanced children's book, he made adjustments aligned with these stakeholder insights on storyline.

There was considerably more variability among participants in regard to emotion words. While 50% of stakeholders identified the four suggested words as commonly used by adults in their community when speaking with children, others raised concerns regarding the acceptability of those words in practice. Broadly speaking, participants anticipated less acceptance of negative emotions – and relatedly, a greater need for

related learning – in their community, exemplified by one stakeholder's experience as both a parent and an educator:

> Some parents, right—I come in contact with some, teaching with the church and stuff. They teach happy, but…they don't want to deal with angry. They don't want to deal with sad. Nobody in the African American community wants to deal with scared. The minute you even give the slightest hint that—you know what I mean?—you're saying that I'm scared. Now I have to defend the fact that I'm not scared, which is not true. I am scared, but I'm more afraid of people viewing me a certain way. This conversation doesn't happen a lot. This one should be emphasized.

Specifically, "scared" gave pause to a number of participants (n = 4) who expected many adults in the community might avoid its use in conversations with children in their care (e.g., "[Scared is] a word [that parents] avoid using…With the scared thing, no [there is not another word that parents usually use instead], 'cause they would want their kids not to be scared…They wouldn't give them that vocabulary of scared.") Some stakeholders did suggest a number of alternatives, from which the first author selected the word "nervous" because it was not a direct synonym of "scared" such as "afraid" or "terrified", that readers might equally dislike. At the same time, it retains an emotional quality, as opposed to suggested words such as "tense" that might refer solely to a physical or emotional state.

Iterative Refinement

Altogether, stakeholder insights, enthusiasm, constructive feedback, and recommendations guided the refinement and integration of prototype components

yielding an emotion-enhanced children's book entitled, "Have a Good Day, K!" (see *Figure 3* for cover)(Chou, 2019). Adhering to the basic structure of Story 3, the main character, Keilani, feels sad when dropped off by and separated from her older sister (precipitating event). As she enters her classroom, the teacher models a number of useful strategies by kneeling down to her eye level, addressing her calmly, and guiding her through a deep breathing exercise – incorporated given participants' appreciation for the inclusion of discrete socio-emotional learning skills from prototype storyboards (Stories 1 and 2), with elaboration on specific steps in answer to requests for detailed instructions that allow readers to follow along (e.g., taking a deep breath into the diaphragm while counting to five, exhaling while counting to five).

The story transitions to an outdoor basketball sequence, reflecting stakeholder insights that sports are engaging for young children. Now calmer but still upset, Keilani refuses to participate. Seeing this, her classmate Collins invites her to join a game in which he and his peers kick and catch a red ball – retaining the active nature of basketball while simplifying to make the story more relatable for younger children. Upon joining her peers, Keilani has an altercation with classmate Jaliah, who catches the ball before her. Collins intervenes, demonstrating peer support – one of the Story 3 components that received the most positive attention – and the story ends when Keilani apologizes and the three students rejoin the game. The general arc of the narrative – peer support and social problem solving – aligns with stakeholder preferences for a story featuring community, peer support, bystander intervention, and conflict resolution. Throughout the book, emotion words are highlighted with different colored font, and the last page contains a sticker chart to track and encourage use.

Phases 6-7. Implementation and Evaluation

Research Design

SMART Phases 6 and 7 (Implementation and Evaluation) involve provision of the target intervention to relevant audiences and assessment of its acceptability, usability, and perceived effectiveness. Authors presented the emotion-enhanced children's book and brief introduction in an online survey and obtained feedback on usability and acceptability from parents, caregivers, educators, and childcare professionals of youth ages 2-7.

Participants

Of the 76 individuals who accessed the online survey, 31 respondents participated including 21 who self-described as parents/caregivers only, 3 who identified as teachers/childcare staff only, and 7 who reported being both parents/caregivers and teachers/childcare staff. Twenty-four participants (n = 24, 77.4%) responded to demographic questions asking for their age (M = 33.88, SD = 5.23), and 25 (80.6%) reported the gender with which they identify (100% female). Based on zip codes provided by participants, the sample included users residing locally within the metropolitan area (n = 4) as well as those from elsewhere in the United States (n = 16; includes residents within the state who live 50 miles or more outside of the partnered community), and other countries *(*n = 3). Participants represented a range of racial and ethnic groups (35.48% White/European American, 16.13% Black/African American/Caribbean American; 9.68% East Asian/Asian American, 3.23% American Indian/Native American; 25.81% identified as Hispanic or Latino/a/x). Three participants (9.68%) reported experiencing housing insecurity in the past year, and three (9.68%)

reported food insecurity in the past year, including one individual who endorsed both. Additional sample characteristics are presented in *Table 3*.

Procedures

The first author employed multiple channels to distribute the link for an online survey hosted by Qualtrics, including: (1) e-mail requests to members of his professional network, including *Leaders* program directors who shared the link within their learning communities of local early childhood educators; (2) posting the link to his personal social media pages and invited connections to share broadly; (3) writing an invited blog post hosted by a statewide non-profit organization advocating for early childhood health; and (4) providing printed flyers at area libraries as well as a local health fair. Participants did not receive financial compensation but were provided a digital copy of the book for completing the survey. Respondents began questionnaires by indicating whether they were a parent/caregiver of children ages 2-7, an educator/childcare staff member serving preschool or kindergarten-age youth, or both. Participants then saw a brief introduction to the emotion-enhanced children's book presenting dialogic reading strategies drawn from topic areas underscored in training videos used in previous research (Arnold et al., 1994), and providing a suggestion to label and explain emotions during PCBR:

> ***Introduction:*** *We've made this children's book to help kids learn more about feelings and getting along with others. As you read this with your students, here are a few tips that might help!*
>
> *1.* ***Ask questions.*** *Think who, what, when, where, and why. Questions help direct kids' attention, and teach beyond the text.*

2. ***Talk about all the feels.*** *Are characters happy? Sad? Angry? Scared? Label and explain characters' feelings to help build empathy and social skills.*

3. ***Explore the pictures.*** *What do you see? Count things, name colors, and use new words for richer learning.*

4. ***Have fun!*** *If you're engaged, your kids are engaged!*

There was no time limit for participants to review materials. After completing the book, participants were invited to answer questions, specifically in reference to children in their home or students in their classroom, respectively. Individuals who identified as both caregivers and educators were asked to frame their responses as parents/caregivers, and then to answer demographic questions about their school and the students they serve.

Measures

While investigators retained two brief measures (the PHQ-4 and ERPS) as they appeared in prior stages, prior literature describing concerns of lower completion rates and increased non-response error for online surveys (see LaRose & Tsai, 2014 for a review) informed decisions to revise and abbreviate surveys for presentation to a broader audience.

Intervention Rating Scale (IRS, 15 items). The IRS was informed by the Behavior Intervention Rating Scale (Elliott & Treuting, 1991) and developed for the current project. It includes face valid items on perceived acceptability (e.g., "I would be excited to read this book at home with my child(ren)"), usability (e.g., "The introduction was effective in teaching me how to use the book"), and perceived effectiveness of intervention components (e.g., "This book teaches my child(ren)/student(s) about how to understand other's emotions") to influence child socio-emotional competencies and

parent emotion coaching. Items for parents and caregivers referenced “my child(ren)”; items for educators and childcare staff referenced “my student(s)”. Participants indicated their agreement with each statement on a 4-point Likert scale (i.e., from 1-4 in the following order: “DEFINITELY NOT!”, “Maybe not..”, “Maybe yes..”, “DEFINITELY YES!”), and participants could go back into the book to review individual pages at any time while completing the IRS.

Demographic Questionnaire. Participants provided basic information including age, gender, race, ethnicity, highest level of education completed, and employment and marital status. Parents and caregivers answered questions describing their household (e.g., number of adults and children in the home, language spoken in addition to English) and their oldest child within the study age range (i.e., age, gender, race/ethnicity, need for early intervention services). Additionally, they responded to nine questions to represent financial strain (e.g., ability to pay monthly bills, questions about housing and food insecurity and provided their resident zip code). Educators and childcare staff also answered questions related to the grade level of their students, years of professional experience, zip code of the school at which they worked, and the proportion of students in their classrooms that came from households at or below the poverty line, lived in neighborhoods with high rates of violent crime, had difficulty managing their emotions, had difficulty managing their behaviors, or had difficulty in social situations. Further, they reported their intentions to stay in their current job and plans to pursue teaching as a career.

Parent Reading Beliefs Inventory – Short Version (PRBI-S, 23 items). The PRBI-S is a 23-item measure that forms two factors: Behaviors and Goals, and Obstacles

(B. DeBaryshe, personal communication, February 16, 2017). Respondents use a five-point Likert scale (Strongly Disagree, Disagree, Not Sure, Agree, Strongly Agree) to report the extent to which they utilize specific strategies in their joint book reading (e.g., "When we read, I use the story as a chance to talk with my child(ren)/student(s) about feelings and emotions"), have certain goals or motivators in reading with their children (e.g., "Reading to my child is a special time that we love to share"), and face specific barriers in their home or classroom setting (e.g., "I don't read to me child(ren)/student(s) very often because we do not have access to children's books"). Higher ratings on items loading to behaviors and goals indicate greater skills use and identification with more motivators; higher items on items loading to obstacles indicate the presence of more barriers.

Analytic Plan

All participants (n = 31) completed the IRS with no missing items. Additionally, 26 participants completed the PHQ-4 (no missing items within these cases); 22 participants responded to the PRBI-S (including one case with nine missing items); and 23 participants responded to the ERPS (including one case with 12 missing items, and one case with 13 missing items). Questionnaires are used descriptively, and missed items were clustered within specific scales; therefore, cases with missing data were removed from analyses by measure (e.g., one case was removed from analysis of the PRBI-S but their data were retained for the IRS, PHQ-4, and ERPS). The ERPS and PHQ-4 were scored according to procedures described previously, and followed guidance provided by the author of the PRBI-S to sum item ratings loading to each subscale separately (B. DeBaryshe, personal communication, March 27, 2020). To evaluate perceptions of

acceptability, usability, and effectiveness of the target intervention, authors examined response frequencies by individual IRS item.

Results

Respondent Characteristics

PHQ-4. Among participants who completed the PHQ-4 (n = 26, 83.87%), 14 (53.85%) obtained total scores in the normative range; nine (34.62%) indicated mild elevations in symptoms of anxiety and depression; one (3.85%) endorsed moderate elevations; and two (7.69%) reported severe elevations.

PRBI-S. On the Behaviors and Goals subscale, respondents to the PRBI-S (n = 21) obtained a mean total score of 70.29 (SD = 6.07) and a mean item score of 4.13 (SD = 0.36) demonstrating agreement with motivations and use of practices presented. Further, respondents obtained a mean total score of 8.38 (SD = 2.52) and a mean item score of 1.39 (SD = 0.42) on the Obstacles subscale, highlighting low presence of barriers among the participant sample.

ERPS. Participants (n = 21) obtained a mean total score of 22.14 (SD = 2.06) and a mean item rating of 4.43 (SD = 0.41) on the ERPS EC subscale, demonstrating strong overall agreement with and use of emotion coaching strategies. A mean total score of 12.05 (SD = 3.90) and a mean item rating of 2.41 (SD = 0.79) on the ERPS PR subscale indicated neither strong agreement nor disagreement with perspectives representing adults' rejection of children's negative emotions; while a mean total score of 19.81 (SD = 3.09) and a mean item rating of 3.96 (SD = 0.62) on the ERPS PA subscale underscored agreement – but not strong agreement – with statements aligned with adult acceptance of children's negative emotions. A mean total score of 10.62 (SD = 3.34) and a mean item

rating of 2.12 (*SD* = 0.67) on the ERPS UI subscale showed that respondents did not agree with items representing uncertainty or ineffectiveness in supporting children's emotion socialization.

Intervention Rating Scale

Overall, survey results indicated positive ratings (summarized in *Table 4*) of the emotion-enhanced children's book. Overall, participant responses indicated acceptability of the book, enthusiasm to read it with their children or students, and anticipated effectiveness of the book in teaching youth about emotions. Similarly, the majority of respondents endorsed little or no concern that the PCBR intervention would adversely affect children or students in their care. Participants provided mixed ratings on a number of items, however, highlighting potential areas for further refinement. In particular, ratings indicated variability in beliefs that children and students would ask to read the emotion-enhanced picture book over other alternatives over time, and participants reported mixed perspectives as to the effectiveness of the PCBR intervention as a platform to help them better understand their children's or students' emotions.

Discussion

In summary, authors engaged community stakeholders in the design and iterative refinement of an emotion-enhanced children's book, utilizing the SMART Model to guide development. Broadly speaking, early prototypes reflected stakeholder recommendations to (1) produce a narrative focusing on themes of sharing, support, and bystander intervention to bullying or peer conflict; (2) utilize a school-based setting and include characters from a representative range of racial and ethnic groups in order to increase relatability for young readers; (3) focus considerable effort on creating colorful,

dynamic illustrations as they play a major role in engaging and holding children's attention during reading; and (4) limit the length of the book to 8-10 pages in order to reduce the burden of use related to both adult readers' time and availability for joint book-reading, and variability in literacy. Feedback provided by community partners informed refinement of the prototype to a final, published draft of *Have a Good Day, K!* Implementation results from the online survey point to favorable evaluations – by parents, caregivers, educators, and childcare professionals – of the emotion-enhanced children's book as an acceptable and usable intervention in their homes and classrooms. Further, findings point to uniformly strong expectations that the book would encourage positive socio-emotional learning among their children and students.

Altogether, results underscore enthusiasm and promise of this intervention as a vehicle of dissemination and indicate specific domains in which to engage stakeholders for further insight toward improvements. Moreover, these data support the potential for social marketing research frameworks conducted in the context of community partnership to obtain and infuse stakeholder feedback into intervention development; however, several limitations highlight potential goals for future work. First, respondents converged less around whether the book would lend itself to repeated use over time. Similarly, feedback was mixed regarding the extent to which this book would become a favorite, one that children would choose over others, or ask for again and again. These considerations speak to areas of growth for continued iterative refinement with caregivers and educators. As well, they highlight the potential utility of inviting children to provide feedback regarding their preferences and the degree to which they find book characteristics engaging. Second, while the decision to conduct evaluation through

Qualtrics created an opportunity to obtain perspectives from a broader audience, it also presented the emotion-enhanced children's book in a different format than originally intended (i.e., digitally, in a web browser on laptop, computer, tablet, and smartphone screens). In light of consistent stakeholder feedback emphasizing the importance of visual presentation to the usability, accessibility, and perceived appeal of the target book, its provision in a non-traditional platform may have impacted respondent evaluation. At the same time, participants provided generally positive ratings across a number of important indicators despite the digital format, which speaks to the promise of tablet and eBook media as viable platforms which may carry unique strengths such as more cost-effective distribution to wider audiences.

Third, ratings varied regarding whether book use would help adult readers gain more insight for how to respond to children's negative emotions. Prior work describes the potential for dialogic reading interventions to improve parents' understanding of their children's literacy and language acquisition (Primavera, 2000), as well as findings demonstrating the ability of targeted book content with a brief introduction by study staff to increase positive parenting practices (Bauer et al., 2012). Thus, further research toward the development of a brief introduction to accompany the emotion-enhanced children's book might advance users' ability to deepen their understanding of child readers' emotions and acquire new ways to engage and respond positively and productively. Fourth, despite the integral role they played in informing wise intervention design and iterative refinement, the Formative Research (Phases 2-4) and Development (Phase 5) stages' relatively small sample size may have resulted in feedback not adequately representative of the larger community within which product design took place, and

precluded audience segmentation that might have better explained differences in perspectives among participants. Variability in constructs such as acceptance and rejection of children's negative emotions, and uncertainty and perceived ineffectiveness in supporting emotion socialization, as well as corresponding discrepancies in qualitative data regarding how best to approach conversations about emotions in the local community, indicate a need for further study with larger samples to best explicate differences and their relationship to acceptability and use of the emotion-enhanced children's book. For example, respondents reporting higher rates of uncertainty or perceived ineffectiveness in supporting the emotion socialization of their children and/or students may view the emotion-enhanced children's book as more acceptable, readily usable, and intuitive than those with lower average item ratings. Future studies employing audience segmentation might inform design of different emotion-enhanced children's books, each tailored to support different groups of diverse end-users in communities characterized by poverty.

Notably, book design evolved within a larger community partnership and alongside multiple partnered goals and activities (e.g., after-school consultation, workforce support) that ultimately enriched conversations with end-users, but also introduced considerable complexity. On the one hand, deeper relationships between the authors and stakeholders may have allowed for more open conversations about reading, emotion awareness, and the developing book, including candor by some participants about emotion avoidance in their community, as indicated by reluctance to introduce the word "scared" in the book. Relatedly, the first author's consultative role with program staff involved significant time on site at *Leaders* and in the community, resulting in

increased contact and proximity to partnered team members' personal and professional stress – and exposure to community violence and grief – yielding perhaps a more nuanced understanding of end-users' lived experience that drove design of more relatable content. As one participant described:

> You (the first author) clearly have a message because you're not out of the realm of what we experience. You know some of the passions. You know some of the factors, the barriers that we penetrate…it's a good thing to be able to be in what you want to be a part of or what you want to assist and support.

On the other hand, these connections may have introduced a degree of positive bias to Formative Research and Development feedback. Moreover, though investigators learned a great deal from their community partners, the highly detailed and nuanced insights – particularly on emotion-related content – informed significant changes to the original product development plan.

As it was originally conceptualized, the PCBR intervention included both the emotion-enhanced children's book and a brief literacy training, planned as a short, in-person conversation with adult co-readers summarizing dialogic reading strategies and drawing from prior research aiming to summarize strategies in brief video formats (Arnold et al., 1994). Additionally, the accompanying training would provide an opportunity to review the benefits of labeling and explaining emotions and demonstrating use of the book. Interestingly, some participants discouraged any direct discussion of socio-emotional learning with parents and caregivers, while others advocated for its necessity in the community. Ultimately, we determined that further development of the

brief literacy training warranted extensive consideration and additional feedback and decided to allocate time and resources toward book refinement.

Developing wise intervention in the context of responsive partnership

Over the course of collaboration, *Leaders'* staff and the children and families they serve experienced significant loss and grief related to both health problems and gun violence. Acute stressors and traumatic exposure reached a peak during the Development stage when in a one-month span, multiple neighborhood shootings and a school lockdown (following reports that a student brought a firearm into the building) occurred. In response, the research team shifted their focus and directed their time and resources more fully toward workforce and community support, temporarily discontinuing book evaluation. Investigators originally planned an open trial of approximately 25 families to examine the promise of the emotion-enhanced children's book to advance children's emotion knowledge, parents' use of dialogic reading skills, and engagement in discussions about emotions during joint book reading; however, while authors still distributed copies of the final published emotion-enhanced children's book to community partners and stakeholders, they sought alternative avenues for evaluation.

Over the next six months, researchers contacted 26 local organizations – including, for instance, childcare centers, libraries, and afterschool programs – some via introductions made by the *Leaders* team, and all serving neighborhoods with similar rates of poverty and crime. Maintaining consistent enough communication to launch new collaborations proved difficult; and while researchers ultimately added two new sites to our IRB protocols, re-establishing contact to move forward with study procedures after the break required for amendment review and approval presented significant challenges.

Research staff also introduced the book at local health fairs and author events, but a combination of low attendance, high rate of cancellation and inconsistent access to quiet, private spaces for data collection led us to redesign the purpose and procedure for evaluation. Notably, experiences reflect prior literature describing the complexities of aligning community-engaged research with traditional academic timelines (Frazier et al., 2008); however, they limited a more rigorous implementation and evaluation of intervention *effectiveness with local users* as typically prescribed by the SMART Model.

As an alternative, investigators examined *acceptability and perceived utility beyond the local community* using an online survey, in response to concerns that the book's targeted development with stakeholders from a single organization might limit its generalizability. Though results indicate that local, national, and even a few international readers may find the intervention acceptable and usable, a number of considerations and limitations warrant mention. First, the online survey offered a web-based presentation of *Have a Good Day, K!* with a brief introduction. As a result, a number of factors related to technology but unrelated to the intervention itself (e.g., device, screen size, Internet connection and speed, familiarity with browser options to zoom in on images to view them in greater detail) may have impacted their impressions. Additionally, though investigators originally intended to consider geographic location, housing and/or food insecurity, and other potentially relevant criteria, the limited online sample size resulted in subgroups too small to test group differences. Nevertheless, this work provides opportunities to reflect on key practices for consideration in wise intervention development.

Approaching complex social problems with design thinking

The current study aimed to consolidate a number of adjacent literatures converging on the aspiration of intervening to promote positive, healthy developmental trajectories among young children in communities characterized by poverty. The dense, interconnected network of contextual factors, individual characteristics, opportunities for change, and exposure to risk yield a complex interdisciplinary problem that underscores a broader discussion – both within sectors of psychological science and beyond – examining the complexity of social problems and how investigators might best form transdisciplinary teams and plan the research necessary to address them (DeTombe, 2017; Tebes, 2018).

In his thoughtful consideration of the present state of our field, Tebes (2018) differentiates between what Nowotsky, Gibbons, and their colleagues term "Mode 1" and "Mode 2" knowledge production, where Mode 1 represents traditional, university-centered research conducted largely by discipline-based, hierarchical teams, and Mode 2 represents "modern", context-driven science produced by interdisciplinary teams following a "heterarchy" (i.e., "a complex adaptive system of interconnected, overlapping, and dynamic components that govern constituent interdependent and networked components" [Tebes, 2012; Tebes, Thai, et al., 2014]; Tebes, 2018). Though acknowledging the undeniably significant advancements made by Mode 1 science to date, he also highlights the limitations and constraints imposed by its overemphasis on specific research methodologies and epistemological perspectives. In contrast, he describes Mode 2 science as a pathway to greater innovation and the production of more

applicable science through the mobilization of transdisciplinary teams including stakeholders familiar with local culture and context.

Tebes' (2018) perspective aligns with a growing trend highlighting the promise of interdisciplinary science across a range of fields including public policy (DeTombe, 2017) and biomedical research (Begg et al., 2014), as evidenced in part by the establishment of the National Institutes of Health National Center for Advancing Translational Sciences in 2006 (Leshner et al., 2013) . Investigators aiming to engage in multidisciplinary science and striving to address complex social problems have increasingly turned to the field of design as a model (Allen et al., 2018; Brown & Wyatt, 2010; Henriksen et al., 2017; Kummitha, 2019). Despite perhaps seeming mismatched in its application to knowledge production at first glance, design represents a range of well-established professional fields with the express goal of developing effective, appealing products and solutions for audiences by leveraging interdisciplinary perspectives, stakeholder input, and iterative refinement (Brown & Wyatt, 2010; Henriksen et al., 2017). Design *thinking*, a term that has become more widely used in science, service-based non-profits, and industry in recent years, describes the process by which this is achieved. As Brown (2010) describes, design thinking proceeds through three general stages: Inspiration, Ideation, and Implementation.

The Inspiration stage broadly describes a fact-finding phase whereby teams construct a "brief" – or summary of known project goals, available resources, and constraints not unlike a literature review – and partner with target end-users and stakeholders to identify their needs, preferences, and applicable local culture. The Ideation stage involves the synthesis of insights gained through research and fieldwork to

inform brainstorming, conducted in a structured format that defers judgment. Notably, design thinking places a strong emphasis on the value of engaging a multidisciplinary team in brainstorming, to support the production of diverse, robust potential solutions. The Implementation stage includes the selection of the most viable idea, development of a prototype, piloting and engagement of stakeholders in evaluation and feedback, and necessary refinement. Though they utilize different labels and terminology, the stages of design thinking, and the phases of the SMART model, bear a striking resemblance in their principles and procedures of iterative refinement. Perhaps unsurprisingly, recent literature has described the fit of design-based strategies for use in social marketing research (Biroscak et al., 2018).

Conclusion

Broadly, this study leveraged a range of complementary scientific methodologies and frameworks – social marketing research, community-engaged science, and rapid qualitative analysis – and integrated literatures and training across a number of fields including literacy and language learning, mental health and socio-emotional development, wise intervention, and design. The resulting emotion-enhanced children's book received positive ratings demonstrating its promise as an acceptable and usable product. Furthermore, evaluation through a digital platform highlights the flexibility of the target *content* for presentation in electronic formats that may lend themselves to cost-effective direct distribution for a wide audience, which may carry particularly significant implications in the context of emergent events result in school closures that drastically disrupt traditional education such as the COVID-19 pandemic (United Nations Educational Scientific and Cultural Organization, 2020). Future work informing the

development of an accompanying brief introduction for adult co-readings including topics such as dialogic reading, child socio-emotional development, and positive response strategies may advance the utility and impact of an emotion-enhanced children's book; as well, continued refinement with larger samples allowing for audience segmentation, and participation from child readers, might improve potential for engagement and repeated use over time.

Table 1

Timeline of SMART Phases

Project Stage	**SMART Phases**	**Description**
Preliminary Planning	*1. Preliminary Planning*	Review existing evidence and literature, determine intervention format and set project goals, and establish study design
Formative Research	*2. Audience Analysis*	Assess audience's perceived need for and costs/benefits of proposed intervention
	3. Channel Analysis	Discover methods of intervention delivery
	4. Market Analysis	Establish "marketing mix" (e.g., product characteristics, price, placement, and promotion needed for successful uptake)
Development	*5. Design Intervention and Materials, Conduct Pretesting*	Design intervention prototypes based on Phase 2-4 findings, obtain feedback from stakeholders for further refinement
Implementation and Evaluation	*6. Implementation*	Provide intervention to potential end users
	7. Evaluation	Evaluate promise, obtain feedback for further refinement

Table 2

Participant demographic characteristics across Formative Research (Phases 2-4) and Development (Phase 5) stages

Variable	Total (n = 18)[a]	Phases 2-4 (n = 9)	Phase 5 (n = 10)[b]
	***n* (Valid %)**	***n* (Valid %)**	***n* (Valid %)**
Parent/caregiver or teacher/childcare			
Parent/Caregiver	11 (61.1%)	5 (55.6%)	3 (30%)
Teacher/Childcare professional	7 (38.9%)	4 (44.4%)	7 (70%)
Gender			
Male	4 (22.2%)	0 (0%)	2 (20%)
Female	14 (77.8%)	9 (100%)	8 (80%)
Race/Ethnicity			
Black/African American	18 (100%)	9 (100%)	10 (100%)
Job status			
Currently not working for pay	1 (5.9%)	0 (0%)	0 (0%)
One part-time job	3 (17.6%)	0 (0 %)	1 (11.1%)
Multiple part-time jobs	5 (29.4%)	3 (37.5%)	5 (55.6%)
Full-time job	8 (47.1%)	4 (62.5%)	3 (33.3%)
Highest education completed			
High school or GED	7 (38.9%)	0 (0%)	2 (20%)
Some college	7 (38.9%)	0 (0%)	5 (50%)
Two-year college degree	2 (11.1%)	5 (55.6%)	2 (20%)
Four-year college degree	1 (5.6%)	4 (44.4%)	1 (10%)
Master's degree	1 (5.6%)	0 (0%)	0 (0%)
Household annual income			
Less than $10,000	3 (23.1%)	2 (25%)	1 (16.7%)
$10,000-$19,999	1 (7.7%)	2 (25%)	3 (50%)
$20,000-$29,999	4 (30.8%)	2 (25%)	0 (0%)
$30,000-$39,999	3 (23.1%)	1 (12.5%)	1 (16.7%)
$40,000-$49,999	0 (0%)	1 (12.5%)	1 (16.7%)
$50,000-$59,999	1 (7.7%)	0 (0%)	0 (0%)
$60,000-$69,999	1 (7.7%)	0 (0%)	0 (0%)
Languages spoken in the home			
English only	8 (80%)	5 (100%)	4 (80%)
English and Spanish	1 (10%)	0 (0%)	1 (20%)
English and Creole	1 (10%)	0 (0%)	0 (0%)
Marital Status			
Single	12 (66.7%)	6 (66.7%)	6 (60%)
Married	3 (16.7%)	1 (11.1%)	1 (10%)
Separated/divorced	2 (11.1%)	2 (22.2%)	2 (20%)
Other	1 (5.6%)	0 (0%)	1 (10%)
	***M* (*SD*)**	***M* (*SD*)**	***M* (*SD*)**
Age	35.94 (11.74) (n = 12)	39.29 (15.20) (n = 8)	39.78 (14.62) (n = 9)

[a]All consented participants across Phases 2-5, including those who did not attend focus groups or interviews (n = 4)

[b]Includes returning participants who also attended Phase 2-4 focus groups (n = 5)

Table 3

Demographics of Implementation and Evaluation (Phases 6 and 7) participants

Variable	*n*	*Valid %*
Parent/caregiver, teacher/childcare staff, or both		
Parent/caregiver	21	67.74%
Teacher/childcare staff	3	9.68%
Both	7	22.58%
Female	25	100%
Race		
American Indian/Native American	1	3.85%
Black/African American/Caribbean American	5	19.23%
East Asian/Asian American	3	11.54%
White/European American	11	42.31%
Self-identify (Puerto Rican)	1	3.85%
Self-identify (Bi-racial)	1	3.85%
Self-identify (Latin American Indigenous and White)	1	3.85%
Prefer not to answer	3	11.54%
Identified as Hispanic or Latina/o/x	8	30.77%
Preferred/primary language in the home		
English	21	84%
Mandarin Chinese	3	12%
English and Spanish equally	1	4%
Job status		
Not currently working for pay	3	12%
One part-time job	3	12%
Multiple part-time jobs	1	4%
Working full time	18	72%
Marital status		
Single	2	8.33%
Married	22	91.67%
Housing insecurity	3	12%
Food insecurity	3	12%
	M	*SD*
Age (n = 24)	33.88	5.23
Additional variables for teachers and childcare professionals	***n***	***Valid %***
Teachers/childcare prof. who estimated at least 50% of their students:		
Live at or below the poverty line	1	20%
Live in communities with high rates of violent crime	1	20%
Have trouble managing difficult emotions	2	40%
Have trouble managing their behaviors	1	20%
Struggle in social situations	1	20%
	M	*SD*
Years working in education or childcare (n = 4)	11	2.71

[a]Defined as having considerable trouble paying monthly rent/bills or having to stay in someone else's home due to financial difficulties in the last year (Kushel et al., 2006).
[b]Defined as endorsing one or more in the past year: worries food would run out before being able to afford more, unable to afford balanced meals, cut down/skipped meals due to cost, not eating for a whole day due to cost, child did not eat for a whole day due to cost (Kushel et al., 2006).

Table 4

Intervention Rating Scale responses of Implementation and Evaluation (Phase 6 and 7) participants

	Rating					
IRS Item	***1***	***2***	***3***	***4***	***M***	***SD***
The introduction was effective in teaching me how to use the book.	1 3.2%	2 6.5%	15 48.4%	13 41.9%	3.29	0.74
I like the recommendations provided in the book's introduction	0 0.0%	1 3.2%	16 51.6%	14 45.2%	3.42	0.56
This book is acceptable for me to use with my child(ren)	3 9.7%	3 9.7%	13 41.9%	12 38.7%	3.10	0.94
This book helps teach my child(ren) about emotions	4 12.9%	2 6.5%	14 45.2%	11 35.5%	3.03	0.98
I would be excited to read this book at home with my child(ren)	5 16.1%	2 6.5%	13 41.9%	11 35.5%	2.97	1.05
I expect my child(ren) will ask to read this book over and over.	5 16.1%	9 29.0%	13 41.9%	4 12.9%	2.52	0.93
My child(ren) would choose this book over other children's books	6 19.4%	8 25.8%	15 48.4%	2 6.5%	2.42	0.89
This book may have a negative effect on my child(ren)	21 67.7%	5 16.1%	4 12.9%	1 3.2%	1.52	0.85
I would recommend this book to other families	6 19.4%	0 0.0%	13 41.9%	12 38.7%	3.00	1.10
This book is a good way to teach my child(ren) about emotions	5 16.1%	2 6.5%	13 41.9%	11 35.5%	2.97	1.05
This book teaches children how to effectively express their emotions	5 16.1%	4 12.9%	16 51.6%	6 19.4%	2.74	0.96
This book teaches children how to understand others' emotions	3 9.7%	3 9.7%	16 51.6%	9 29.0%	3.00	0.89
This book teaches children how to get along better with others	4 12.9%	2 6.5%	16 51.6%	9 29.0%	2.97	0.95
This book will help me understand my child(ren)'s emotions better	7 22.6%	10 32.3%	10 32.3%	4 12.9%	2.35	0.98
This book will help me respond better when my child(ren) are upset	7 22.6%	7 22.6%	12 38.7%	5 16.1%	2.48	1.03

Note: Ratings represent responses on a four-point Likert scale with the following anchors: 1 = DEFINITELY NOT!, 2 = Maybe not.., 3 = Maybe yes.., 4 = DEFINITELY YES!; Teachers and childcare staff questions replaced "child(ren)" with "student(s)".

Figure 1

Sample images from the initial prototype. Reprinted with permission from “Community-Engaged Development of a Parent-Child Book Reading Wise Intervention”, by T. Chou, 2020, *FIU Electronic Theses and Dissertations.* Copyright 2020 by Tommy Chou.

Figure 2

Sample materials from the refined prototype. Reprinted with permission from "Community-Engaged Development of a Parent-Child Book Reading Wise Intervention", by T. Chou, 2020, *FIU Electronic Theses and Dissertations.* Copyright 2020 by Tommy Chou.

Figure 3

Sample images from the final draft. Reprinted with permission from *Have a Good Day, K!*, by T. Chou, 2019, Pennsauken, NJ: Book Baby. Copyright 2020 by Tommy Chou.

V. FIELD STATEMENT

Poverty exerts negative impacts on children's academic skills and social, emotional, and behavioral health through a vast network of predictors, mediators, and moderators (Rouse & Fantuzzo, 2009; Yoshikawa et al., 2012). Current literature speaks to significant challenges that slow the effective implementation of evidence-based interventions (Yoshikawa et al., 2016). While academic-community partnerships – and community-engaged research (CEnR) more broadly – hold promise in supporting the development and evaluation of programming that can overcome these barriers, they often require decision-making and practice that overextend conventional guidelines for traditional settings (Campbell & Morris, 2017b). As the field of CEnR continues to move forward, the presentation and empirical examination of new practice frameworks such as those presented in Chapters 2 and 3 may promote ethical and impactful science in partnership with local communities.

Chapter 4 predominantly describes the use of the SMART Model to guide the design, refinement, and evaluation of a PCBR wise intervention (i.e., an emotion-enhanced children's book). Despite existing evidence pointing to PCBR as a common home routine among families impacted by economic disadvantage (Data Resource Center for Child and Adolescent Health, 2019), adjacent literature presenting variability in the quality of reading interactions and access to resources to support a home literacy environment (Johnson et al., 2008; Phillips & Lonigan, Christopher, 2009) speak to potential barriers to adoption. Results indicate high enthusiasm, acceptability, and perceived utility of the resulting emotion-enhanced children's book among parents, caregivers, teachers, and childcare professionals, indicating the promise of social

marketing frameworks in developing wise interventions with significant potential for adoption and use.

Early childhood education and school readiness represent critical periods with widespread downstream impacts on youth development (Yoshikawa et al., 2016). Moreover, prior work highlights the cost-effectiveness of societal investment in early education, particularly for children affected by economic disadvantage (Heckman, 2006). Thus, continued efforts to create and employ resource-efficient wise interventions leveraging naturally occurring, intrinsically beneficial early learning routines may serve an essential role in advancing community mental health and wellbeing. The complexity of social problems such as poverty and the detriment it causes calls for readily actionable solutions informed by multiple literatures (Tebes, 2018). Findings from this dissertation speak to the potential for synthesis of methodologies and knowledge drawn from different fields to yield acceptable and usable wise interventions when conducted in partnership with local stakeholders. Accordingly, this interdisciplinary work, taken alongside broader calls for increased team science (Tebes, 2018), speaks to the potential need to re-examine prevalent training models in clinical science. The National Institutes of Health recognize the need to fund innovative training models poised to produce a workforce of biomedical researchers equipped to join interdisciplinary teams (Begg et al., 2014). Similarly, graduate, post-doctoral, and early career training in clinical psychology may benefit from the incorporation of novel content areas to support advancement towards aspirational goals in the use of technology (Mohr, 2009) and community-engaged, public health-informed psychological research (Atkins & Frazier, 2011).

REFERENCES

Aarons, G. A., Ehrhart, M. G., Farahnak, L. R., & Hurlburt, M. S. (2015). Leadership and organizational change for implementation (LOCI): A randomized mixed method pilot study of a leadership and organization development intervention for evidence-based practice implementation. *Implementation Science*, *10*(1), 1–12. https://doi.org/10.1186/s13012-014-0192-y

Abad, C., & Pruden, S. M. (2013). Do storybooks really break children's gender stereotypes? *Frontiers in Psychology*, *4*(DEC), 1–4. https://doi.org/10.3389/fpsyg.2013.00986

Allen, B. J., Chandrasekaran, D., & Basuroy, S. (2018). Design crowdsourcing: The impact on new product performance of sourcing design solutions from the "crowd." *Journal of Marketing*, *82*(2), 106–123. https://doi.org/10.1509/jm.15.0481

American Academy of Pediatrics. (2014). Literacy Promotion: An Essential Component of Primary Care Pediatric Practice. *Pediatrics*, *134*(2), 404–409. https://doi.org/10.1542/peds.2014-1384

American Psychological Association. (2017a). *Ethical principles of psychologists and code of conduct (2002, Amended June 1, 2010 and January 1, 2017)*. http://www.apa.org/ethics/code/

American Psychological Association. (2017b, November). Ten trends to watch in psychology: What's ahead in 2018. *Monitor on Psychology*. http://www.apa.org/monitor/2017/11/cover-trends.aspx

Anderson, E. E. (2013). Views of Academic and Community Partners Regarding Participant Protections and Research Integrity: A Pilot Focus Group Study. *J Empir Res Hum Res Ethics*, *8*(1), 1–17. https://doi.org/10.1525/jer.2013.8.1.20.Views

Anderson, E. E., Solomon, S., Heitman, E., DuBois, J. M., Fisher, C. B., Kost, R. G., Lawless, M. E., Ramsey, C., Jones, B., Ammerman, A., & Ross, L. F. (2012). Research Ethics Education for Community-Engaged Research: A Review and Research Agenda. *Journal of Empirical Research on Human Research Ethics: An International Journal*, *7*(2), 3–19. https://doi.org/10.1525/jer.2012.7.2.3

Andreasen, A. R. (2004). A Social Marketing Approach to Changing Mental Health Practices Directed at Youth and Adolescents. *Health Marketing Quarterly*, *21*(4), 51–75. https://doi.org/10.1300/J026v21n04_04

Arnold, D. H., Lonigan, C. J., Whitehurst, G. J., & Epstein, J. N. (1994). Accelerating Language Development Through Picture Book Reading: Replication and Extension to a Videotape Training Format. *Journal of Educational Psychology*, *86*(2), 235–243. https://doi.org/10.1037/0022-0663.86.2.235

Ashill, N. J., & Rod, M. (2011). Burnout processes in non-clinical health service encounters. *Journal of Business Research*, *64*(10), 1116–1127. https://doi.org/10.1016/j.jbusres.2010.11.004

Atkins, M. S., & Frazier, S. L. (2011). Expanding the toolkit or changing the paradigm: Are we ready for a public health approach to mental health? *Perspectives on Psychological Science*, *6*(5), 483–487. https://doi.org/10.1177/1745691611416996

Bagner, D. M., Frazier, S. L., & Berkovits, M. (2014). Getting Ready for Preschool: Linking Early Intervention and Family Mental Health for Infants and Toddlers with Developmental Delay. *Administration and Policy in Mental Health and Mental Health Services Research*, *41*(6), 707–711. https://doi.org/10.1007/s10488-013-0513-5

Baird, K., & Kracen, A. C. (2006). Vicarious traumatization and secondary traumatic stress: A research synthesis. *Counselling Psychology Quarterly*, *19*(2), 181–188. https://doi.org/10.1080/09515070600811899

Baker, E. A., Schootman, M., Barnidge, E., & Kelly, C. (2006). The role of race and poverty in access to foods that enable individuals to adhere to dietary guidelines. *Preventing Chronic Disease*, *3*(3), A76.

Balas, E. A., & Boren, S. A. (2000). Managing Clinical Knowledge for Health Care Improvement. *IMIA Yearbook*, 65–70. http://www.schattauer.de/t3page/1214.html?manuscript=26379&L=1

Barnard, L. K., & Curry, J. F. (2011). *Self-Compassion : Conceptualizations , Correlates , & Interventions*. *15*(4), 289–303. https://doi.org/10.1037/a0025754

Barnett, W. S. (1998). Long-Term Cognitive and Academic Effects of Early Childhood Education on Children in Poverty. *Preventive Medicine*, *207*(27), 204–207. https://doi.org/10.1006/pmed.1998.0275

Bauer, N. S., Hus, A. M., Sullivan, P. D., Szczepaniak, D., Carroll, A. E., & Downs, S. M. (2012). A pilot study using children's books to understand caregiver perceptions of parenting practices. *Journal of Developmental & Behavioral Pediatrics*, *33*(5), 423–430. https://doi.org/10.1097/DBP.0b013e3182560d87

Beaumont, E., & Hollins Martin, C. J. (2016). A proposal to support student therapists to develop compassion for self and others through Compassionate Mind Training. *Arts in Psychotherapy*, *50*, 111–118. https://doi.org/10.1016/j.aip.2016.06.005

Begg, M. D., Crumley, G., Fair, A. M., Martina, C. A., Mccormack, W. T., Merchant, C., Patino-sutton, C. M., & Umans, J. G. (2014). Approaches To Preparing Young Scholars for careers in interdisciplinary team science. *Journal of Investigative Medicine*, *62*(1), 14–25. https://doi.org/10.231/JIM.0000000000000021.APPROACHES

Belone, L., Lucero, J. E., Duran, B., Tafoya, G., Baker, E. A., Chan, D., Chang, C., Greene-Moton, E., Kelley, M. A., & Wallerstein, N. (2016). Community-Based Participatory Research Conceptual Model. *Qualitative Health Research*, *26*(1), 117–135. https://doi.org/10.1177/1049732314557084

Bercier, M. L., & Maynard, B. R. (2015). Interventions for Secondary Traumatic Stress With Mental Health Workers: A Systematic Review. *Research on Social Work Practice*, *25*(1), 81–89. https://doi.org/10.1177/1049731513517142

Biroscak, B. J., Schneider, T., Martinez Tyson, D., Aguado Loi, C. X., & Bryant, C. A. (2018). Applying Tools From Human-Centered Design to Social Marketing Planning. *Social Marketing Quarterly*, *24*(2), 63–73. https://doi.org/10.1177/1524500418761624

Brill, M., & Nahmani, N. (2017). The Presence of Compassion in Therapy. *Clinical Social Work Journal*, *45*(1), 10–21. https://doi.org/10.1007/s10615-016-0582-5

Brown, T., & Wyatt, J. (2010). Design thinking for social innovation. *Stanford Social Innovation Review*, 30–35. https://doi.org/10.2307/j.ctt1t8917t.13

Burgess, D. J., Beach, M. C., & Saha, S. (2017). Mindfulness practice: A promising approach to reducing the effects of clinician implicit bias on patients. *Patient Education and Counseling*, *100*(2), 372–376. https://doi.org/10.1016/j.pec.2016.09.005

Campbell, R., & Morris, M. (2017a). Complicating Narratives: Defining and Deconstructing Ethical Challenges in Community Psychology. *American Journal of Community Psychology*, 491–501. https://doi.org/10.1002/ajcp.12177

Campbell, R., & Morris, M. (2017b). The Stories We Tell: Introduction to the Special Issue on Ethical Challenges in Community Psychology Research and Practice. *American Journal of Community Psychology*, 299–301. https://doi.org/10.1002/ajcp.12178

Cappella, E., Frazier, S. L., Atkins, M. S., Schoenwald, S. K., & Glisson, C. (2008). Enhancing Schools' Capacity to Support Children in Poverty: An Ecological Model of School-Based Mental Health Services. *Administration and Policy in Mental Health and Mental Health Services Research*, *35*(5), 395–409. https://doi.org/10.1007/s10488-008-0182-y.Enhancing

Carson, T., & Johnston, I. (2000). The difficulty with difference in teacher education: Toward a pedagogy of compassion. *Alberta Journal of Educational Research*, *46*(1), 75.

Case, A. D. (2017). Reflexivity in Counterspaces Fieldwork. *American Journal of Community Psychology*, 398–405. https://doi.org/10.1002/ajcp.12196

Center for Science and Democracy. (2017). *Preserving scientific integrity in federal policy making: Lessons from the last two administrations and what's at stake under the Trump administration*.

Chambers, C. T. (2018). From evidence to influence: Dissemination and implementation of scientific knowledge for improved pain research and management. *Pain*, *159*, S56–S64.

Chou, T. (2019). *Have a Good Day, K!* Book Baby.

Chou, T., & Frazier, S. L. (2019). Supporting ethical practice in community-engaged research with 4R : Respond, Record, Reflect, and Revise. *Ethics & Behavior*, *0*(0), 1–15. https://doi.org/10.1080/10508422.2019.1645665

Creswell, J. W., & Miller, D. L. (2000). *Determining validity in qualitative inquiry*. *39*(3), 124–130. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=15112801380926444577related:IVQn78h0u9EJ

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, *4*(1), 1–15. https://doi.org/10.1186/1748-5908-4-50

Data Resource Center for Child and Adolescent Health. (2019). *2017-2018 National Survey of Children's Health*.

De Dreu, C. K. W., Dierendonck, D. Van, & Dijkstra, M. T. M. (2004). Conflict and Work and Individual Well-being. *International Journal of Conflict Management*, *15*(1), 6–26. https://doi.org/10.1108/eb022905

DeBaryshe, B. D., & Binder, J. C. (1994). Development of an Instrument for Measuring Parental Beliefs About Reading Aloud To Young Children. *Perceptual and Motor Skills*, *78*(3c), 1303–1311. https://doi.org/10.2466/pms.1994.78.3c.1303

Denham, S. A. (2006). Social relationships and school readiness. *Early Education and Development*, *17*(1), 151–176. https://doi.org/10.1207/s15566935eed1701

Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental Contributions to Preschoolers' Emotional Competence: Direct and Indirect Effects. *Motivation and Emotion*, *21*(1), 65–86. https://doi.org/10.1023/A:1024426431247

DeTombe, D. (2017). Societal problems more complex than presumed: The Compram methodology. *Journal of Systems Science and Systems Engineering*, *26*(3), 303–320. https://doi.org/10.1007/s11518-017-5334-8

Dutton, J. E., Worline, M. C., Frost, P. J., & Lilius, J. (2017). Explaining Compassion Organizing. *Administrative Science Quarterly*, *51*(1), 59–96. https://doi.org/10.2189/asqu.51.1.59

Dworkin, E. R., & Allen, N. E. (2017). For the Good of the Group? Balancing Individual and Collective Risks and Benefits in Community Psychology Research. *American Journal of Community Psychology*, 391–397. https://doi.org/10.1002/ajcp.12184

Elliott, S. N., & Treuting, M. V. B. (1991). The behavior intervention rating scale: Development and validation of a pretreatment acceptability and effectiveness measure. *Journal of School Psychology*, *29*(1), 43–51. https://doi.org/10.1016/0022-4405(91)90014-I

Fagan, A. A., Hanson, K., Briney, J. S., & Hawkins, J. D. (2012). Sustaining the Utilization and High Quality Implementation of Tested and Effective Prevention Programs Using the Communities That Care Prevention System. *American Journal of Community Psychology*, *49*(3–4), 365–377. https://doi.org/10.1007/s10464-011-9463-9

Ferretti, L. K., & Bub, K. L. (2017). Family Routines and School Readiness During the Transition to Kindergarten. *Early Education and Development*, *28*(1), 59–77. https://doi.org/10.1080/10409289.2016.1195671

Foster, H., & Brooks-Gunn, J. (2009). Toward a stress srocess model of children's exposure to physical family and community violence. *Clinical Child and Family Psychology Review*, *12*(2), 71–94. https://doi.org/10.1007/s10567-009-0049-0

Frazier, S. L., Abdul-Adil, J., Atkins, M. S., Gathright, T., & Jackson, M. (2007). Can't have one without the other: Mental health providers and community parents reducing barriers to services for families in urban poverty. *Journal of Community Psychology*, *35*(4), 435–446. https://doi.org/10.1002/jcop.20157

Frazier, S. L., Cappella, E., & Atkins, M. S. (2007). Linking mental health and after school systems for children in urban poverty: Preventing problems, promoting possibilities. *Administration and Policy in Mental Health and Mental Health Services Research*, *34*(4), 389–399. https://doi.org/10.1007/s10488-007-0118-y

Frazier, S. L., Chou, T., Ouellette, R. R., Helseth, S. A., Kashem, E. R., & Cromer, K. D. (2019). Workforce Support for Urban After-School Programs: Turning Obstacles into Opportunities. *American Journal of Community Psychology*, 1–14. https://doi.org/10.1002/ajcp.12328

Frazier, S. L., Formoso, D., Birman, D., & Atkins, M. S. (2008). Closing the research to practice gap: Redefining feasibility. *Clinical Psychology: Science and Practice*, *15*(2), 125–129. https://doi.org/10.1111/j.1468-2850.2008.00120.x

Funk, C. (2017). Real Numbers: Mixed Messages about Public Trust in Science. *Issues in Science and Technology*. http://issues.org/34-1/real-numbers-mixed-messages-about-public-trust-in-science/

Gale, R. C., Wu, J., Erhardt, T., Bounthavong, M., Reardon, C. M., Damschroder, L. J., & Midboe, A. M. (2019). Comparison of rapid vs in-depth qualitative analytic methods from a process evaluation of academic detailing in the Veterans Health Administration. *Implementation Science*, *14*(1), 1–12. https://doi.org/10.1186/s13012-019-0853-y

Glisson, C., & James, L. R. (2002). The cross-level effects of culture and climate in human service teams. *Journal of Organizational Behavior*, *23*(6), 767–794. https://doi.org/10.1002/job.162

Glisson, C., & Schoenwald, S. K. (2005). The ARC organizational and community intervention strategy for implementing evidence-based children's mental health treatments. *Mental Health Services Research*, *7*(4), 243–259. https://doi.org/10.1007/s11020-005-7456-1

González Castro, F., Barrera, M., & Holleran Steiker, L. K. (2010). Issues and Challenges in the Design of Culturally Adapted Evidence-Based Interventions. *Annual Review of Clinical Psychology*, *6*(1), 213–239. https://doi.org/10.1146/annurev-clinpsy-033109-132032

Grier, S., & Bryant, C. A. (2005). Social Marketing In Public Health. *Annual Review of Public Health*, *26*(9), 319–339. https://doi.org/10.1146/annurev.publhealth.26.021304.144610

Gushwa, M., & Chance, T. (2008). Ethical Dilemmas for Mental Health Practitioners: Navigating Mandated Child Maltreatment Reporting Decisions. *Families in Society: The Journal of Contemporary Social Services*, *89*(1), 78–83. https://doi.org/10.1606/1044-3894.3712

Haarlammert, M., Birman, D., Oberoi, A., & Moore, W. J. (2017). Inside-Out: Representational Ethics and Diverse Communities. *American Journal of Community Psychology*, 414–423. https://doi.org/10.1002/ajcp.12188

Hayes, S. C. (2018). *Improving Workplace Experience and Reducing Burnout in Integrated Care Environments: Mindfulness and Psychological Flexibility*. https://integration.samhsa.gov/about-us/Webinar_mindfulnessandstress.pdf

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, *44*(1), 1–25. https://doi.org/10.1016/j.brat.2005.06.006

Heckman, J. J. (2006). Skill Formation and the Economics of Investing in Disadvantaged Children. *Science*, *312*(5782), 1900–1902. https://doi.org/10.1016/j.adolescence.2005.09.001

Heffernan, M., Quinn Griffin, M. T., McNulty, S. R., & Fitzpatrick, J. J. (2010). Self-compassion and emotional intelligence in nurses. *International Journal of Nursing Practice*, *16*(4), 366–373. https://doi.org/10.1111/j.1440-172X.2010.01853.x

Henriksen, D., Richardson, C., & Mehta, R. (2017). Design thinking: A creative approach to educational problems of practice. *Thinking Skills and Creativity*, *26*(March), 140–153. https://doi.org/10.1016/j.tsc.2017.10.001

Hunsaker, S., Chen, H. C., Maughan, D., & Heaston, S. (2015). Factors That Influence the Development of Compassion Fatigue, Burnout, and Compassion Satisfaction in Emergency Department Nurses. *Journal of Nursing Scholarship*, *47*(2), 186–194. https://doi.org/10.1111/jnu.12122

Imai, H., Furukawa, T. A., Kasahara, Y., Ishimoto, Y., Kimura, Y., Fukutomi, E., Chen, W. ling, Tanaka, M., Sakamoto, R., Wada, T., Fujisawa, M., Okumiya, K., & Matsubayashi, K. (2014). Ipsative imputation for a 15-item Geriatric Depression Scale in community-dwelling elderly people. *Psychogeriatrics*, *14*(3), 182–187. https://doi.org/10.1111/psyg.12060

Iruka, I. U., LaForett, D. R., & Odom, E. C. (2012). Examining the validity of the family investment and stress models and relationship to children's school readiness across five cultural groups. *Journal of Family Psychology*, *26*(3), 359–370. https://doi.org/10.1037/a0028290

Javdani, S., Singh, S., & Sichel, C. E. (2017). Negotiating Ethical Paradoxes in Conducting a Randomized Controlled Trial: Aligning Intervention Science with Participatory Values. *American Journal of Community Psychology*, 439–449. https://doi.org/10.1002/ajcp.12185

Johnson, A. D., Martin, A., Brooks-Gunn, J., & Petrill, S. A. (2008). Order in the House! Associations among Household Chaos, the Home Literacy Environment, Maternal Reading Ability, and Children's Early Reading Anna. *Merrill Palmer Quarterly*, *54*(4), 445–472. https://doi.org/10.1353/mpq.0.0009

Kadushin, C. (2005). Who benefits from network analysis: Ethics of social network research. *Social Networks*, *27*(2), 139–153. https://doi.org/10.1016/j.socnet.2005.01.005

Kakkad, D. (2017). A New Ethical Praxis: Psychologists' Emerging Responsibilities in Issues of Social Justice A New Ethical Praxis: Psychologists' Emerging Responsibilities in Issues of Social Justice. *Ethics and Behavior*, *15*(4), 293–308. https://doi.org/10.1207/s15327019eb1504_2

Kang, Y., Gray, J. R., & Dovidio, J. F. (2014). The nondiscriminating heart: Lovingkindness meditation training decreases implicit intergroup bias. *Journal of Experimental Psychology: General*, *143*(3), 1306–1313. https://doi.org/10.1037/a0034150

Kazdin, A. E., & Blase, S. L. (2011). Rebooting Psychotherapy Research and Practice to Reduce the Burden of Mental Illness. *Perspectives on Psychological Science*, *6*(1), 21–37. https://doi.org/10.1177/1745691610393527

Kesten, S. M., Perez, D. A., Marques, D. S., Evans, S. D., & Sulma, A. (2017). Fight, Flight, or Remain Silent? Juggling Multiple Accountabilities throughout the Formative Stage of a Neighborhood Revitalization Initiative. *American Journal of Community Psychology*, *60*(3–4), 450–458. https://doi.org/10.1002/ajcp.12191

Kivell, N. M., Evans, S. D., & Paterson, S. E. (2017). Community Power Structure Analysis and the Ethical Considerations of "Studying Up." *American Journal of Community Psychology*, *60*(3–4), 467–475. https://doi.org/10.1002/ajcp.12190

Knight, C. (2013). Indirect Trauma: Implications for Self-Care, Supervision, the Organization, and the Academic Institution. *Clinical Supervisor*, *32*(2), 224–243. https://doi.org/10.1080/07325223.2013.850139

Kroenke, K., Spitzer, R. L., Williams, J. B. W., & Löwe, B. (2009). An Ultra-Brief Screening Scale for Anxiety and Depression: The PHQ–4. *Psychosomatics*, *50*(6), 613–621. https://doi.org/10.1016/s0033-3182(09)70864-3

Kummitha, R. K. R. (2019). Design thinking in social organizations: Understanding the role of user engagement. *Creativity and Innovation Management*, *28*(1), 101–112. https://doi.org/10.1111/caim.12300

Kushel, M. B., Gupta, R., Gee, L., & Haas, J. S. (2006). Housing instability and food insecurity as barriers to health care among low-income Americans. *Journal of General Internal Medicine*, *21*(1), 71–77. https://doi.org/10.1111/j.1525-1497.2005.00278.x

La Paro, K. M., & Pianta, R. C. (2000). Predicting Children's Competence in the Early School Years: A Meta-Analytic Review. *Review of Educational Research*, *70*(4), 443–484. https://doi.org/10.3102/00346543070004443

LaBounty, J., Wellman, H. M., Olson, S., Lagattuta, K., & Liu, D. (2008). Mothers' and fathers' use of internal state talk with their young children. *Social Development*, *17*(4), 757–775. https://doi.org/10.1111/j.1467-9507.2007.00450.x

LaRose, R., & Tsai, H. Y. S. (2014). Completion rates and non-response error in online surveys: Comparing sweepstakes and pre-paid cash incentives in studies of online behavior. *Computers in Human Behavior*, *34*, 110–119. https://doi.org/10.1016/j.chb.2014.01.017

Ledoux, K. (2015). Understanding compassion fatigue: Understanding compassion. *Journal of Advanced Nursing*, *71*(9), 2041–2050. https://doi.org/10.1111/jan.12686

Lee, S. S. J. (2012). Lessons Learned From the U.S. Public Health Service Syphilis Study at Tuskegee: Incorporating a Discourse on Relationships Into the Ethics of Research Participation Among Asian Americans. *Ethics and Behavior*, *22*(6), 489–492. https://doi.org/10.1080/10508422.2012.730002

Leshner, A. I., Terry, S. F., Schultz, A. M., & Liverman, C. T. (2013). The CTSA program at NIH: Opportunities for advancing clinical and translational research. In *The CTSA Program at NIH: Opportunities for Advancing Clinical and Translational Research*. https://doi.org/10.17226/18323

Lilius, J. M., Worline, M. C., Maitlis, S., Kanov, J., Dutton, J. E., & Frost, P. (2008). The contours and consequences of compassion at work. *Journal of Organizational Behavior*, *29*, 193–218. https://doi.org/10.1002/job.508

Maines, D. R. (1977). Social Organization and Social Structure in Symbolic Interactionist Thought. *Annual Review of Sociology*, *3*, 235–259.

Michener, L., Cook, J., Ahmed, S. M., Yonas, M. A., Coyne-Beasley, T., & Aguilar-Gaxiola, S. (2012). Aligning the goals of community-engaged research: Why and how academic health centers can successfully engage with communities to improve health. *Academic Medicine*, *87*(3), 285–291. https://doi.org/10.1097/ACM.0b013e3182441680

Mikulincer, M., & Shaver, P. R. (2005). *Attachment Security, Compassion, and Altruism — Current Directions in Psychological Science*. *14*(1), 34–38. https://doi.org/10.1111/j.0963-7214.2005.00330.x

Mohr, D. C. (2009). Telemental health: Reflections on how to move the field forward. *Clinical Psychology: Science and Practice*, *16*(3), 343–347. https://doi.org/10.1111/j.1468-2850.2009.01172.x

Neff, K. (2004). Self-Compassion and Psychological Well-Being. *Constructivism in the Human Sciences*, *9*(2), 27–37.

Neiger, B. L., & Thackeray, R. (2002). Application of the SMART Model in Two Successful Social Marketing Projects. *American Journal of Health Education*, *33*(5), 301–303. https://doi.org/10.1080/19325037.2002.10604747

Owen, J., Quirk, K., Bergen, C., Inch, L. J., & France, T. (2012). The effectiveness of PREP with lower-income racial/ethnic minority couples. *Journal of Marital and Family Therapy*, *38*(1), 296–307. https://doi.org/10.1111/j.1752-0606.2012.00294.x

Paterson, A. D., Babb, K. A., Camodeca, A., Goodwin, J., Hakim-Larson, J., Voelker, S., & Gragg, M. (2012). Emotion-Related Parenting Styles (ERPS): A Short Form for Measuring Parental Meta-Emotion Philosophy. *Early Education & Development*, *23*(4), 583–602. https://doi.org/10.1080/10409289.2011.569316

Phillips, B. M., & Lonigan, Christopher, J. (2009). Variations in the Home Literacy Environment of Preschool Children: A Cluster Analytic Approach. *Scientific Studies of Reading*, *13*(2), 146–174. https://doi.org/10.1080/10888430902769533

Primavera, J. (2000). Enhancing family competence through literacy activities. *Journal of Prevention & Intervention in the Community*, *20*(1–2), 85–101. https://doi.org/10.1300/J005v20n01_07

Richardson, C. M. E., Trusty, W. T., & George, K. A. (2018). Trainee wellness: self-critical perfectionism, self-compassion, depression, and burnout among doctoral trainees in psychology. *Counselling Psychology Quarterly*, *00*(00), 1–12. https://doi.org/10.1080/09515070.2018.1509839

Rohlfing, K. J., & Nachtigäller, K. (2016). Can 28-Month-Old Children Learn Spatial Prepositions Robustly from Pictures? Yes, When Narrative Input Is Provided. *Frontiers in Psychology*, *7*(July), 1–16. https://doi.org/10.3389/fpsyg.2016.00961

Rouse, H. L., & Fantuzzo, J. W. (2009). *Early Childhood Research Quarterly Multiple risks and educational well being : A population-based investigation of threats to early school success*. *24*, 1–14. https://doi.org/10.1016/j.ecresq.2008.12.001

Sapthiang, S., Van Gordon, W., & Shonin, E. (2019). Mindfulness in Schools: a Health Promotion Approach to Improving Adolescent Mental Health. *International Journal of Mental Health and Addiction*, *17*(1), 112–119. https://doi.org/10.1007/s11469-018-0001-y

Satcher, D. (2012). The Legacy of the Syphilis Study at Tuskegee in African American Men on Health Care Reform Fifteen Years After President Clinton's Apology. *Ethics and Behavior*, *22*(6), 486–488. https://doi.org/10.1080/10508422.2012.730005

Scarlet, J., Altmeyer, N., Knier, S., & Harpin, R. E. (2017). The effects of Compassion Cultivation Training (CCT) on health-care workers. *Clinical Psychologist*, *21*(2), 116–124. https://doi.org/10.1111/cp.12130

Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, *7*(2), 147–177. https://doi.org/10.1037/1082-989X.7.2.147

Schoenwald, Sonja, K.; Hoagwood, K. (2001). Effectiveness, Transportability, and Dissemination of Interventions: What Matters When ? *Psychiatric Services*, *52*(9), 1190–1197. https://doi.org/10.1176/appi.ps.52.9.1190

School Library Journal, & Follett Corporation. (2019). *SLJ's Average Book Prices for 2019*. School Library Journal. http://www.slj.com/2016/03/research/sljs-average-book- prices-for-2016/#_

Shamsi, M., Pariani, A., Shams, M., & Soleymani-Nejad, M. (2016). Persuasion to use personal protective equipment in constructing subway stations: Application of social marketing. *Injury Prevention*, *22*(2), 149–152. https://doi.org/10.1136/injuryprev-2014-041461

Shonin, E., Van Gorder, W., & Griffiths, M. D. (2014). The emerging role of Buddhism in clinical psychology: Torwards effective integration. *Psychology of Religion and Spirituality*, *6*, 123–137. https://doi.org/10.1037/a0035859

Sinclair, S., Kondejewski, J., Raffin-Bouchal, S., King-Shier, K. M., & Singh, P. (2017). Can Self-Compassion Promote Healthcare Provider Well-Being and Compassionate Care to Others? Results of a Systematic Review. *Applied Psychology: Health and Well-Being*, *9*(2), 168–206. https://doi.org/10.1111/aphw.12086

Stetler, C. B., Legro, M. W., Rycroft-Malone, J., Bowman, C., Curran, G., Guihan, M., Hagedorn, H., Pineros, S., & Wallace, C. M. (2006). Role of "external facilitation" in implementation of research findings: A qualitative evaluation of facilitation experiences in the Veterans Health Administration. *Implementation Science*, *1*(1), 1–15. https://doi.org/10.1186/1748-5908-1-23

Tebes, J. K. (2018). Team science, justice, and the co-production of knowledge. *American Journal of Community Psychology*, *62*(1–2), 13–22. https://doi.org/10.1002/ajcp.12252

Thackeray, R., & Neiger, B. L. (2003). Use of Social Marketing to Develop Culturally Innovative Diabetes Interventions. *Diabetes Spectrum*, *16*(1), 15–20. https://doi.org/10.2337/diaspect.16.1.15

The Metropolitan Center. (2016). *Miami-Dade Economic Advocacy Trust Annual Report Card and Scorecard*.

Tracy, J. L., & Randles, D. (2011). Four models of basic emotions: A review of Ekman and Cordaro, Izard, Levenson, and Panksepp and Watt. *Emotion Review*, *3*(4), 397–405. https://doi.org/10.1177/1754073911410747

United Nations Educational Scientific and Cultural Organization. (2020). *Education: From disruption to recovery*. https://en.unesco.org/covid19/educationresponse

van den Heuvel-Panhuizen, M., Elia, I., & Robitzsch, A. (2016). Effects of reading picture books on kindergartners' mathematics performance. *Educational Psychology*, *36*(2), 323–346. https://doi.org/10.1080/01443410.2014.963029

van der Merwe, A., & Hunt, X. (2019). Secondary trauma among trauma researchers: Lessons from the field. *Psychological Trauma: Theory, Research, Practice, and Policy*, *11*(1), 10–18. https://doi.org/10.1037/tra0000414

Walton, G. M. (2014). The New Science of Wise Psychological Interventions. *Current Directions in Psychological Science*, *23*(1), 73–82. https://doi.org/10.1177/0963721413512856

White, D. (2006). The hidden costs of caring: What managers need to know. *Health Care Manager*, *25*(4), 341–347. https://doi.org/10.1097/00126450-200610000-00010

Whitehurst, G. J., Zevenbergen, A. A., Crone, D. A., Schultz, M. D., Velting, O. N., & Fischel, J. E. (1999). Outcomes of an emergent literacy intervention from Head Start through second grade. *Journal of Educational Psychology*, *91*(2), 261–272. https://doi.org/10.1037//0022-0663.91.2.261

Xie, Q. W., Chan, C. H. Y., Ji, Q., & Chan, C. L. W. (2018). Psychosocial effects of parent-child book reading interventions: A meta-analysis. *Pediatrics*, *141*(4). https://doi.org/10.1542/peds.2017-2675

Yarnell, L. M., & Neff, K. D. (2013). Self-compassion, Interpersonal Conflict Resolutions, and Well-being. *Self and Identity*, *12*(2), 146–159. https://doi.org/10.1080/15298868.2011.649545

Yoshikawa, H., Aber, J. L., & Beardslee, W. R. (2012). The effects of poverty on the mental, emotional, and behavioral health of children and youth: Implications for prevention. *American Psychologist*, *67*(4), 272–284. https://doi.org/10.1037/a0028015

Yoshikawa, H., Weiland, C., & Brooks-Gunn, J. (2016). When does preschool matter? *Future of Children*, *26*(2), 21–36. https://doi.org/10.1353/foc.2016.0010

Zajicek-Farber, M. L., Mayer, L. M., Daughtery, L. G., & Rodkey, E. (2014). The Buffering Effect of Childhood Routines: Longitudinal Connections Between Early Parenting and Prekindergarten Learning Readiness of Children in Low-Income Families. *Journal of Social Service Research*, *40*(5), 699–720. https://doi.org/10.1080/01488376.2014.930946

APPENDICES

Note: The following research measures were excluded from appendices due to copyrights: Patient Health Questionnaire for Depression and Anxiety (PHQ-4), Parent Reading Beliefs Inventory (PRBI), Parent Reading Beliefs Inventory – Short Version (PRBI-S), Emotion-Related Parenting Styles (ERPS). Additionally, the Intervention Rating Scale (IRS) which draws heavily from the Behavior Intervention Rating Scale (Elliott & Treuting, 1991) has been excluded due to copyrights.

Appendix A: Research Measures

A.1 – Parent/Caregiver Demographics (Formative Research, Development)

DEMOGRAPHIC SURVEY

<table>
<tr><th colspan="2">INFORMATION ABOUT YOU (PARENT)</th></tr>
<tr><td>Age:

Gender:

What best describes your race/ethnicity (Check ONE)?
__ Black/African-American
__ American Indian
__ Asian/Pacific Islander
__ Hispanic
__ White
__ Other (Specify:
_____)</td><td>What is the highest level of education you have completed (Check ONE)?
__ Less than 9th grade
__ Some high school (did not graduate)
__ High school or GED
__ Some college
__ Completed 2-year college degree
__ Completed 4-year college degree
__ Some graduate work
__ Master's degree or higher</td></tr>
<tr><td>What is your current job status (Check ONE)?
__ I am not currently working for pay
__ I have a part-time job
__ I have multiple part-time jobs
__ I have a full-time job
If currently working, how many hours do you work per week on average? _____</td><td>What is your current relationship/marital status (Check ONE)?
__ Single
__ Unmarried, living with partner
__ Married
__ Separated/divorced
__ Widowed (loss of spouse)
__ Other (Specify: _____)</td></tr>
</table>

<table>
<tr><th colspan="2">INFORMATION ABOUT YOUR FAMILY/HOUSEHOLD</th></tr>
<tr><td>Including you, how many adults live in the home?</td><td>How many children live in the home?</td></tr>
<tr><td>What range best describes the total household annual income (Check ONE)?

__ $0 - $4,999
__ $5,000 - $9,999
__ $10,000 - $14,999
__ $15,000 - $19,999
__ $20,000 - $24,999
__ $25,000 - $29,999
__ $30,000 - $34,999
__ $35,000 - $39,999
__ $40,000 - $44,999
__ $45,000 - $49,999
__ $50,000 - $54,999
__ $55,000 - $59,999
__ $60,000 - $64,999
__ $65,000 - $69,999
__ $70,000 - $74,999
__ $75,000 - $79,999
__ $80,000 - $84,999
__ $85,000 - $89,999
__ $90,000 - $94,999
__ $95,000 - $99,999
__ Over $100,000</td><td>Are there other family members who play a major role in caring for your preschooler(s) (Check all that apply)?
__ Your spouse or partner
__ Your child's grandparent(s)
__ Your child's aunt(s)
__ Your child's uncle(s)
__ Your child's older sibling(s)

What languages are spoken in the home other than English, if any? (If none, write "None")</td></tr>
</table>

INFORMATION ABOUT <u>YOUR PRESCHOOLER</u> *If you have multiple preschoolers*, please answer these questions for **the oldest child between ages 2-5**	
Date of Birth (MM/DD/YYYY):	Age:
Gender:	Is your child receiving any early intervention services? __Yes __ No
What best describes your child's race/ethnicity (Check ONE)? __ Black/African-American (non-Hispanic) __ American Indian __ Asian/Pacific Islander __ Hispanic __ White __ Other (Specify: _____)	To your knowledge, is your child's **English** reading level (Check ONE)… __ Above average __ Average __ Below average __ Unsure/I don't know
What other languages does your child speak (if any)?	

A.2 – Teacher/Childcare Demographics (Formative Research, Development)

DEMOGRAPHIC SURVEY

<table>
<tr><th colspan="2">INFORMATION ABOUT YOU</th></tr>
<tr><td>Age:

Gender:

What best describes your race/ethnicity (Check ONE)?
__ Black/African-American
__ American Indian
__ Asian/Pacific Islander
__ Hispanic
__ White
__ Other (Specify:
_____)</td><td>What is the highest level of education you have completed (Check ONE)?
__ Less than 9th grade
__ Some high school (did not graduate)
__ High school or GED
__ Some college
__ Completed 2-year college degree
__ Completed 4-year college degree
__ Some graduate work
__ Master's degree or higher</td></tr>
<tr><td>What is your current job status (Check ONE)?
__ I am not currently working for pay
__ I have a part-time job
__ I have multiple part-time jobs
__ I have a full-time job
If currently working, how many hours do you work per week on average? _____</td><td>What is your current relationship/marital status (Check ONE)?
__ Single
__ Unmarried, living with partner
__ Married
__ Separated/divorced
__ Widowed (loss of spouse)
__ Other (Specify: _____)</td></tr>
<tr><th colspan="2">INFORMATION ABOUT YOUR WORK</th></tr>
<tr><td>Circle the grade levels of the children in your current classroom

Pre-K K 1

2 3 4

5 Other: _____</td><td>Which of the statements below best describe you (Check ONE)?

__ I did grow up in the community I serve, and do live there now
__ I did not grow up in the community I serve, and do not live there now
__ I did not grow up in the community I serve, but I do live there now
__ I did not grow up in the community I serve, and do not live there now</td></tr>
<tr><td colspan="2">Months of experience in teaching and/or childcare settings? _____ months
Months of experience at your current Leaders Program? _____ months</td></tr>
</table>

A.3 – Focus Group Guide (Formative Research)

Growing Learners Focus Group, SMART Phases 2-4

Participant IDs: **Date:**
Start time:
End Time:

Welcome: *Good evening, and welcome! My name is [Moderator], and I am [Moderator role on project] for this project, hoping to find ways to improve kids' understanding of emotions and provide parents with some helpful strategies through a specially designed children's book. Assisting me today is [Co-facilitator], also from our project.*

Topic Overview: *We're hoping to work with parents to make an educational picture book that you and your children will enjoy. I'm interested in your perspectives on how we can make a book that you'll be happy to use!*

Ground Rules: *There are no right or wrong answers! We expect that you all will have different points of view and opinions about what would make a book like this easiest and most enjoyable to use. Please feel free to share your point of view, even if it is different from what others have said.*

As stated in the consent form that you signed, this focus group will last approximately 90 minutes. ***We are recording the session*** *so that we don't miss any of your comments. Later, this recording will be transcribed and maintained on a secure computer, to be destroyed after 7 years. No names will be included in any of those transcriptions, and codes will be used to protect your identity, and the identity of anyone else you mention.*

Please don't feel like you need to respond to me all the time. If you want to follow up on something that someone else has said, or if you want to agree or disagree, or give an example, feel free to do that. I'm here to ask questions, listen, and make sure everyone has a chance to share, but my hope is to help guide and support a conversation among everyone here. We are interested in hearing from each of you, so if you're contributing a lot, I may ask you to give others a chance. If you aren't saying much, I may ask you to share.

If you have a cell phone, it would help if you could put it on silent or vibrate, and if you need to answer the phone please step out to do so. Feel free to eat throughout the meeting!

What questions do you have before we get started?

Audience Analysis

Parent Meta-emotion Philosophy. *Before we get into topics about children's books, I want to spend some time talking about your thoughts on your children's emotions - for example, what your own experiences and reactions are to your child's expression of emotions like happiness, excitement, sadness, anger, or fear, and how you typically respond. When you signed up to participate in this group, you each completed two questionnaires. One of them related directly to this topic, so I'll be referring to some of those questions as we discuss.*

[Using findings from evaluation of numeric trends, review most impactful items from the Emotion Related Parenting Styles – Short Form (ERPS) following this basic structure]:

Many of you gave high/low ratings on _____. (For example, "Children acting sad are usually just trying to get adults to feel sorry for them"; or "When my child gets sad, I warn him or her about not developing a bad character") *Tell me more about* (These are provided as examples. Try to use probes from each item, but do not feel you need to ask every question below)*:*

1. *...why you feel that way, how that affects your relationship with your child, what are the benefits to taking that view, and what are the potential downsides.* (For items asking about parents' attitudes on negative emotions)
2. *...if you are satisfied with this, if you would be interested in learning more/changing this* (For items asking about parents' perceived efficacy or knowledge about negative emotions)
3. *...why you use this parenting practice, what it helps you accomplish, what drawbacks there are to its use, if you would be interested in learning more/changing this* (For items asking about parents' responses and practices related to their children's emotions)

Parent-preschooler book reading. *Great, thank you all for sharing! Now, I want to talk more about reading to your child. Again, you all have answered some questions about this already and I want to talk a bit about your answers. We understand that there is a range of routines that parents have regarding reading. Some families have a structure around reading while lots of parents also struggle to make time for reading routines due to how busy family life can be and all the competing priorities that go along with parenting. Again, there are no right or wrong answers here! I just want to learn more about the role of parent-child reading in your homes. First, I'd like to hear more about your family routines around reading and barriers and facilitators to creating reading routines. If any, what reading routines do you have?*

[Using findings from evaluation of numeric trends, review most impactful items from the Parent Reading Beliefs Inventory (PRBI) following this basic structure]:

Many of you gave high/low ratings on _____. (For example, "When we read, I want my child to help me tell the story" or "My child is too young to learn about reading") *Tell me more about:*

1. *...why you feel that way, what the benefits are to taking that view, and what the potential downsides might be.* (For items asking about parents' attitudes on the importance of book reading)
2. *...if you are satisfied with this, if you would be interested in improving on this* (For items asking about parents' perceived efficacy as teachers and in book reading)
3. *...how this resource barrier gets in the way, what, if anything, could help reduce this barrier either in a book or in its instructions* (For items asking about parents' resources related to book reading; do not spend too much time engaging in individualized problem solving as it may distract from broader insights on how the target intervention might address barriers)

Note: These probes also help inform **Market Analysis – Product and Price (esp. related to Barriers)**

Channel Analysis

That's all really helpful! I want to turn our attention to the format of the book for a bit. We have the opportunity to think about how we put a new book together and make it available to families, so I want to spend some time talking about your preferences. Also, because we may be making a book that's different from most published picture books, we want to include some instruction for parents, practice, or recommendations around how to use each piece. That might seem overly complicated for a children's book, but let me give you a quick example: I know about a book that uses different colors to highlight strategies parents can use when their children are frustrated.[15] In the book, words in blue show ways that parents can offer choices, and words in red show ways that parents can provide encouragement. Words in purple invite problem solving, and words in green validate feelings. Before parents receive the books, they learn what each color means and they practice using the book and the strategies. We're thinking we may want to use a similar strategy, and we're interested in your reactions.

Where do you, and other parents like you, look for a book like this? If meaningful prompts are needed:

- *Nowadays, books can be accessed in a lot of different ways, not just in print. What types of books do you prefer to use with your child(ren)? What, if any, advantages are there to a printed book? What, if any, disadvantages….* **Note:** These probes also help inform **Market Analysis – Product**
- *Would you be more likely to find and use a copy online, or a printed copy at the library, your school, the MCI community center, or somewhere else?* **Note:** These probes also help inform **Market Analysis – Place**
- *If you were not actively looking for a book like this, where might you be likely to see it (e.g., in your school's front office, storefront window, parenting blog, featured in a community newsletter, etc.)* **Note:** These probes also help inform **Market Analysis – Place and Promotion**
- *What features would make you consider reading it with your child (e.g., illustration style, title, characters, a recommendation from a friend, something else)?* **Note:** These probes also help inform **Market Analysis – Promotion**

What version(s) of instructions (or recommendations for how to use the book most effectively) would be most helpful for you?

- *A bookmark with suggested steps written out? An online video? An in-person demonstration?*

…and where would you most like that to occur?

- *At school? At the MCI community center? In your home? At the library? Somewhere else?*

Market Analysis – Product, Price, Place, and Promotion (**Facilitator Note:** Depending on the amount of time remaining, and the information relevant to Market

Analysis obtained through probes above, select probes strategically to assess topics in this section to ensure coverage of information.)

Okay, thanks for spending some time talking about the big picture pieces with me! Let's spend our remaining time talking about things that might help make the book better or more useful to you.

[This section of discussion will rely heavily on parents' responses to the ERPS and PRBI, and may build on topics reviewed in previous sections. Thus, specific probes will be determined following analysis of numeric trends in questionnaires completed at consent. They will target the "4 P's", as defined below (Thackeray & Neiger, 2003):

Product – probes will review aspects related to acceptability and usability of the proposed children's book and training (e.g., attitudes about parent meta-emotion philosophy that might interfere with use, barriers to book reading, strengths of book reading in guiding parents' discussion of emotions, etc.)

Price – probes will review parents' perceived costs in using the product, both in terms of financial resources and opportunity cost (e.g., other demands on time such as cooking, cleaning, lost time for work, attending to children's other needs, personal time for relaxation, etc.)

Place – probes will examine parents' perceptions regarding barriers (e.g., noise, space limitations, other distractions, etc.) and benefits (e.g., convenience, ability to read to multiple children at once, etc.) to in-home use of the target book

Promotion – probes will reflect on parents' preferences in the means by which they receive information about the book, where they might access the book and training, and specific narrative elements of the children's book and training that facilitate or impede appropriate and effective use

Summary

Moderator gives a short summary of participants' discussion of the questions and probes above.

What else did we miss that you'd like to discuss?

Closing

This ends our focus group for today. Thank you all very much! I really appreciate the time you've taken to discuss these questions, and to give your honest feedback about the proposed book and instruction session. Your feedback and opinions will really help us shape this work so that it best supports you, your children, and families in your community.

A.4 – Parent/Caregiver Demographics (Implementation and Evaluation)

DEMOGRAPHIC SURVEY

1. What is your home zip code?
2. What is your age?
3. What is your gender?

   Male

   Female

   Prefer not to answer

   Prefer to self-identify:

4. What is your race/ethnicity?

   Alaskan Native

   Am. Indian/Native American

   Black/African-American

   Black/Caribbean American

   East Asian/Asian American

   South Asian/Indian American

   Middle Eastern/Arab American

   Native Hawaiian/Pacific Islander

   White/European American

   Prefer not to answer

   Prefer to self-identify:

5. Do you identify as Hispanic or Latino/a/x?

   Yes

   No

6. What is the primary/preferred language in the home?

   English

   Spanish

   French

   Haitian Creole

   Portuguese

   Other (please explain)

7. Including you, how many adults live in the home?
8. How many children live in the home?
9. What is your current job status?

   I am not currently working for pay

   I have a part-time job

   I have multiple part-time jobs

   I have a full-time job
10. If currently working, how many hours do you work per week on average?
11. What is your current relationship/marital status?

    Single

    Unmarried, living with partner

    Married

    Separated/divorced

    Widowed (loss of spouse)

    Other (please specify):
12. *In the last **12 months,*** how hard has it been to pay your monthly bills?

    Not at all

    A little

    Somewhat

    Very
13. *Was this statement true for you in the last 12 months?* "We worried whether our food would run out before we got money to buy more."

    Often

    Sometimes

    Never

14. *Was this statement true for you in the last 12 months?* "We couldn't afford to eat balanced meals"

    Often

    Sometimes

    Never

15. *In the last 12 months,* did you ever cut the size of your meals or skip meals because there wasn't enough money for food?

    Yes No

16. *In the last 12 months,* did you ever not eat for a whole day because there wasn't enough money for food?

    Yes No

17. *In the last 12 months,* did any of the children ever not eat for a whole day because there wasn't enough money for food?

    Yes No

18. *During **the past year,*** have you had more than 2 people per bedroom?

    Yes No

19. *In the past year*, have you stayed with others because of financial difficulties?

    Yes No

20. How many times have you moved ***in the last year***?

For the following questions, if you have multiple young children, please answer these questions for the oldest child between ages 2-7.

21. What is your child's age?

22. What is your child's gender?

    Male Female

23. Is your child receiving any early intervention services?

    Yes No

24. Child's race/ethnicity?

    Alaskan Native South Asian/Indian American

    Am. Indian/Native American Middle Eastern/Arab American

    Black/African-American Native Hawaiian/Pacific Islander

    Black/Caribbean American White/European American

    East Asian/Asian American Prefer not to answer

    Prefer to self-identify:

25. Does your child identify as Hispanic or Latino/a/x?

    Yes No

A.5 – Teacher/Childcare Demographics (Implementation and Evaluation)

DEMOGRAPHIC SURVEY

1. What is the zip code of the school or childcare center where you work?
2. What is your age?
3. What is your gender?

   Male Female

   Prefer not to answer

   Prefer to self-identify:

4. What is your race/ethnicity?

   Alaskan Native South Asian/Indian American

   Am. Indian/Native American Middle Eastern/Arab American

   Black/African-American Native Hawaiian/Pacific Islander

   Black/Caribbean American White/European American

   East Asian/Asian American Prefer not to answer

   Prefer to self-identify:

5. Do you identify as Hispanic or Latino/a/x?

   Yes No

6. **How many years** have you been working with children? (If less than 1 year, number of months)
7. How much training have you had in child development?

   None

   A little

   Some

   A lot

8. How much training have you received in mental health?

   None

   A little

   Some

   A lot

9. To the best of your knowledge, how many children in your classes **come from households below the poverty line**?

   A small number (25%)

   Some (25%-50%)

   A lot (50%-75%)

   Most (75%-100%)

10. To the best of your knowledge, how many children in your classes **live in neighborhoods with high rates of violent crime**?

    A small number (25%)

    Some (25%-50%)

    A lot (50%-75%)

    Most (75%-100%)

11. To the best of your knowledge, how many children in your classes **have trouble *managing difficult emotions* (feeling scared, sad, or angry)**?

    A small number (25%)

    Some (25%-50%)

    A lot (50%-75%)

    Most (75%-100%)

12. To the best of your knowledge, how many children in your classes **have trouble *in social situations*** **(making friends, playing well with others, sharing)**?

    A small number (25%)

    Some (25%-50%)

    A lot (50%-75%)

    Most (75%-100%)

13. How often do you think about quitting your current job?

    Never

    Rarely (every few months)

    Often (every few weeks)

    All the time (weekly or more)

14. How long do you plan to stay in teaching or childcare?

    I would change careers now if I could

    A few more months

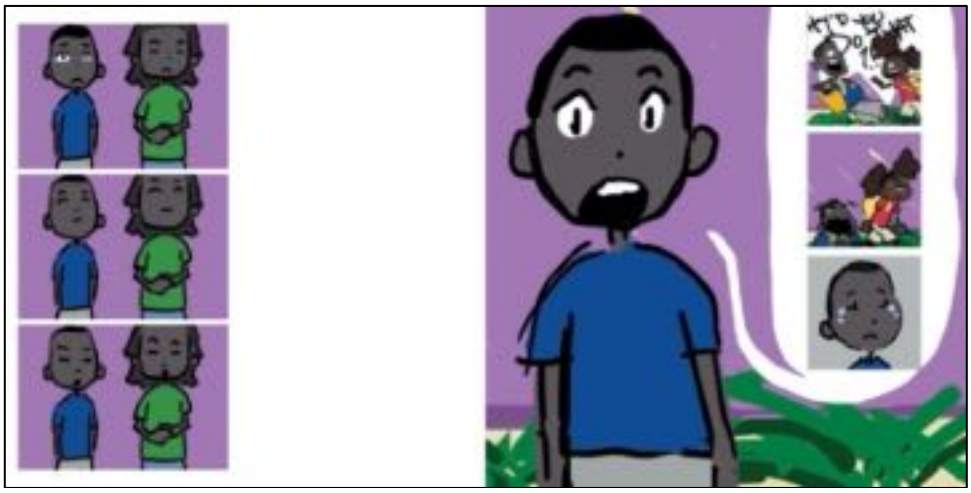
    A few more years

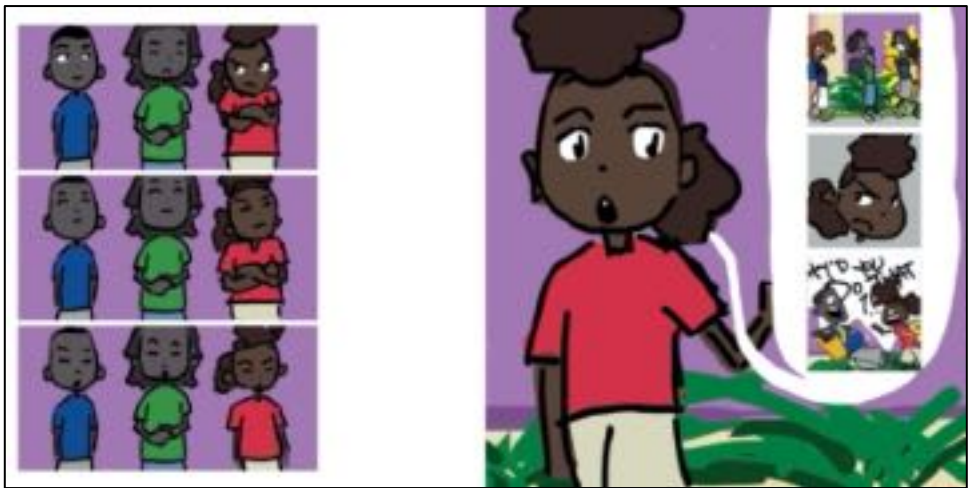
    Forever! (no plans to change careers)

Appendix B: Development (Phase 5) Prototype Materials

B.1 – Initial Prototype

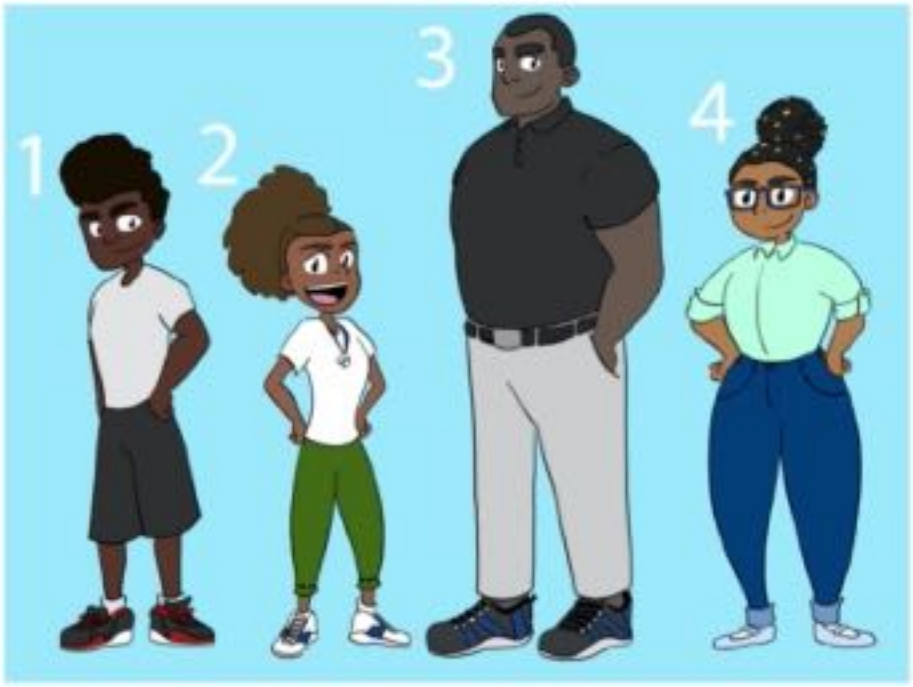

Okay, what happened?
asked the teacher
NO!

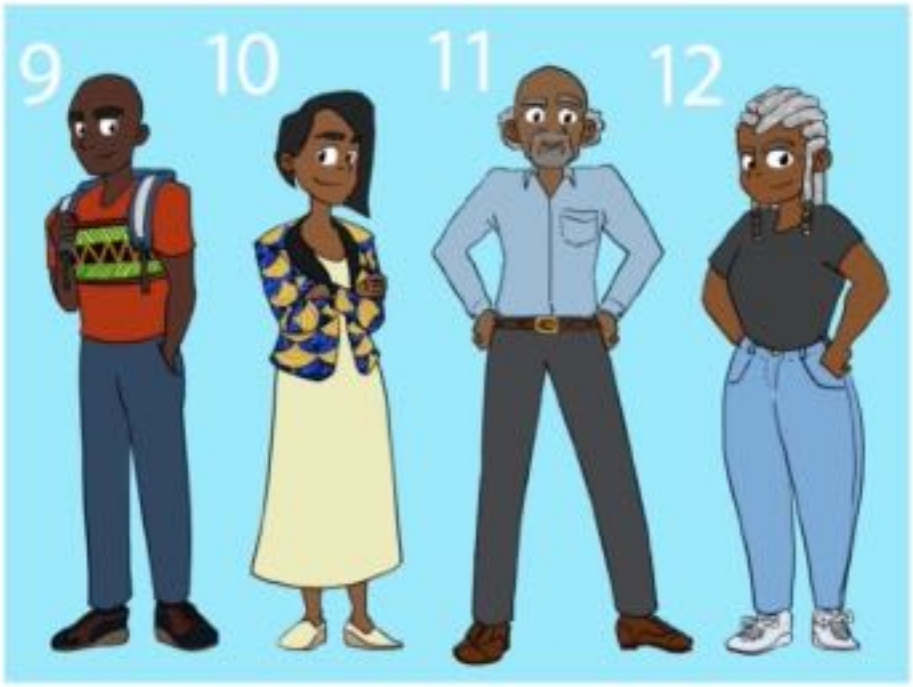




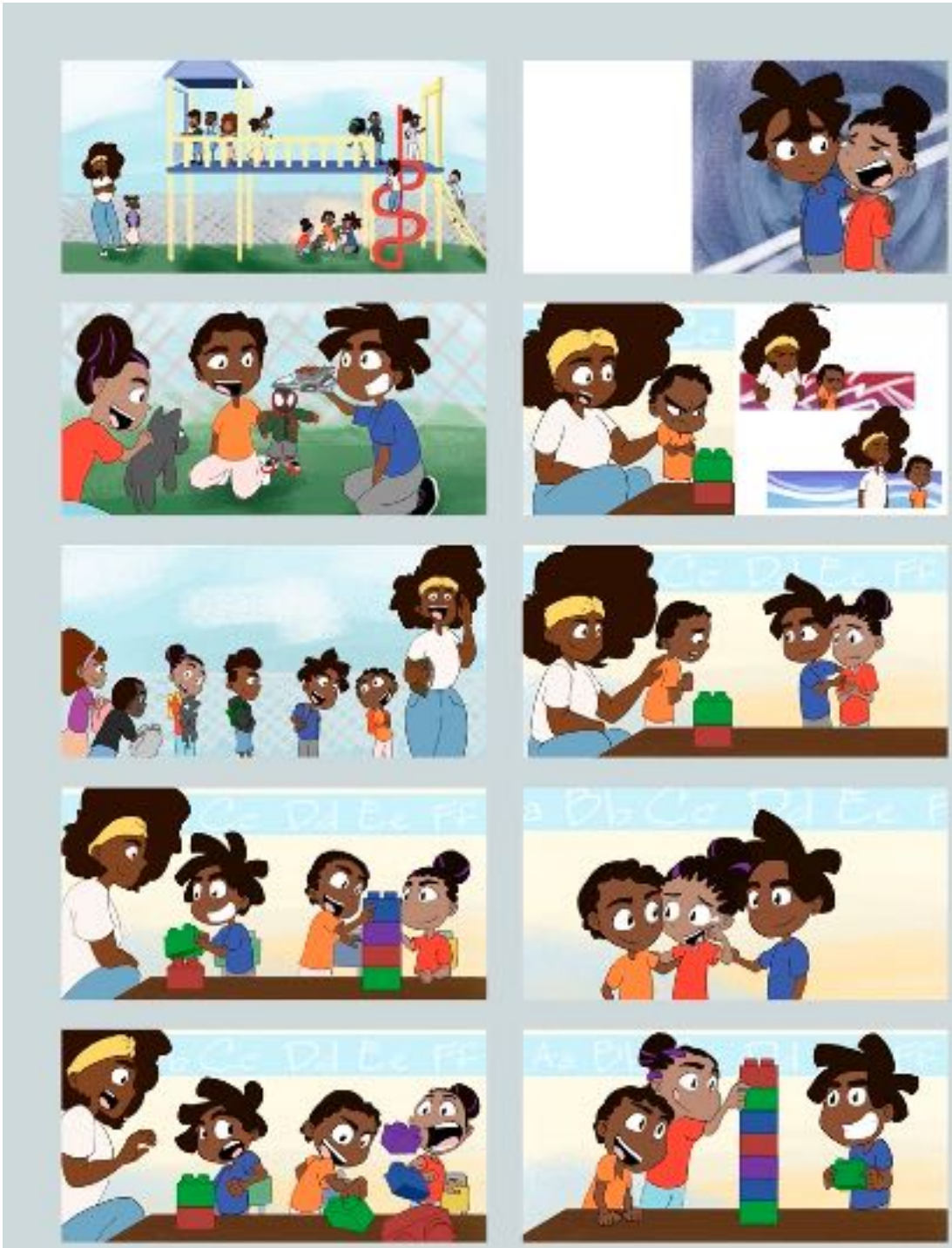
B.2 – Revised Prototype (Student Characters)

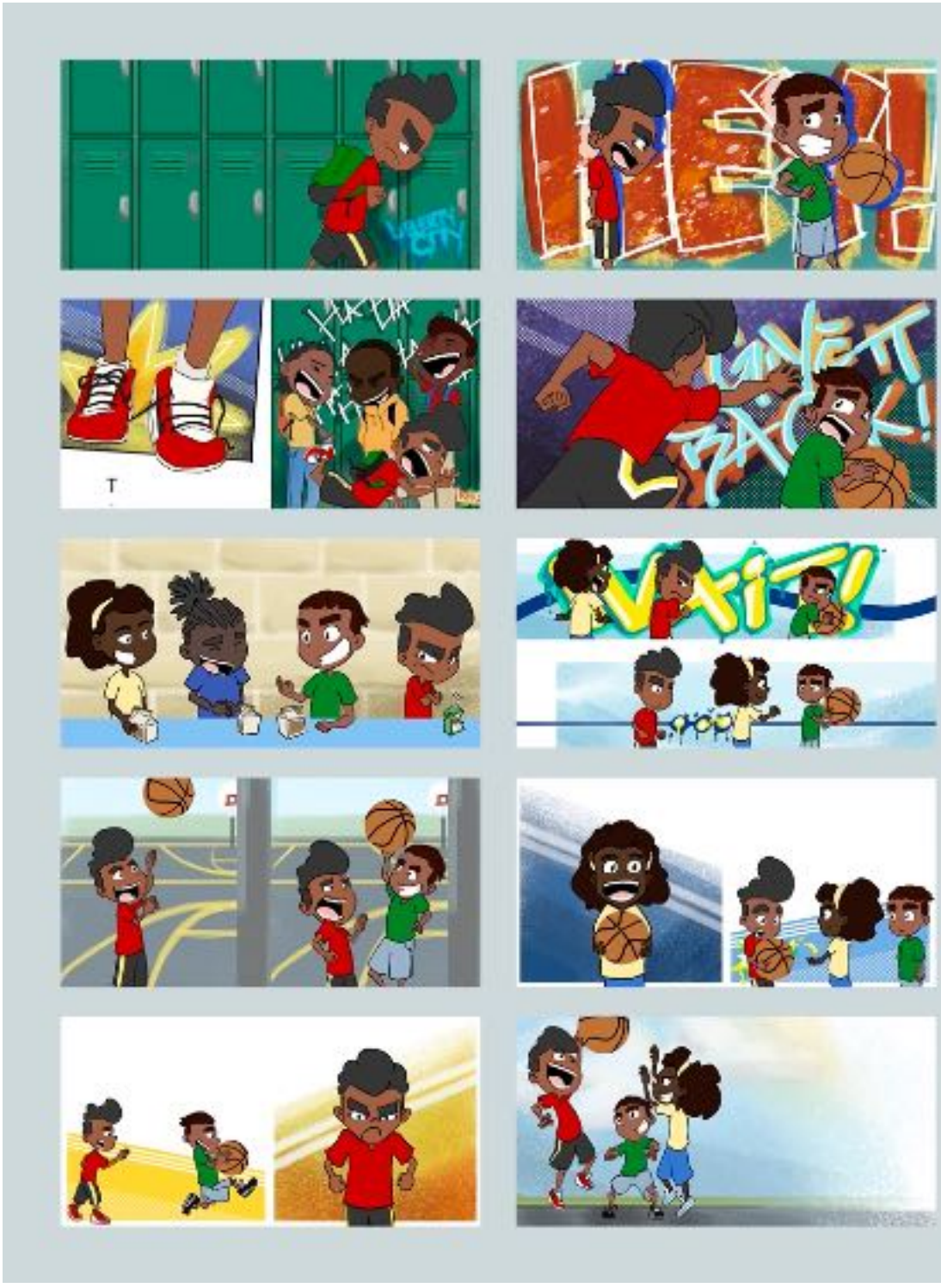
B.3 – Revised Prototype (Teacher Characters)




9
10
11
12

B.4 – Revised Prototype (Storyboards)





B.5 – Revised Prototype (Emotion Word Matrix)

Appendix C: Emotion-Enhanced Picture Book

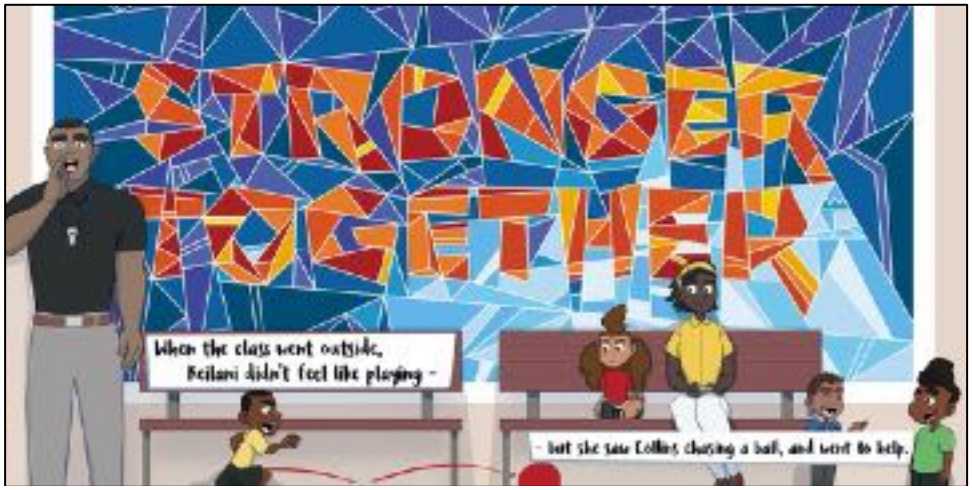

Have a
GOOD
DAY, K


IBC
MADE
IN
LIBERTY
CITY
HAVE A
GOOD DAY, K!
MORTARBOARD
HOW
DO
YOU
FEEL
TODAY?
Tommy Chou
VISIONS


Keilani
LOVES
walking to school
with her sister
every morning.

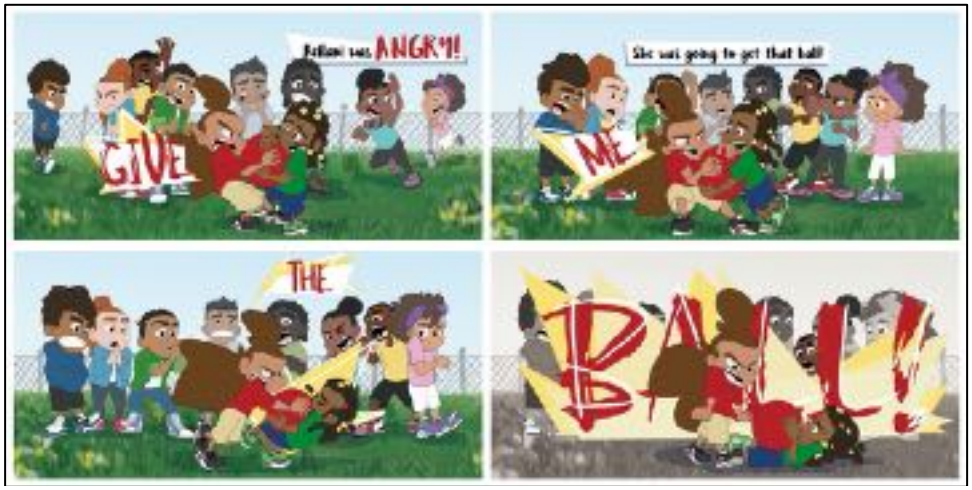

Bb Cc Dd Ee Ff Gg Hh
You Have Lived
SOMETIMES THE
RIGHT THING
IS THE
HARDEST
THING
ARE THE
SAME THING
Our Class Rules
1. Listen and follow directions
2. Be respectful
3. Use gentle hands and kind words
...but she feels sad when her sister has to leave.

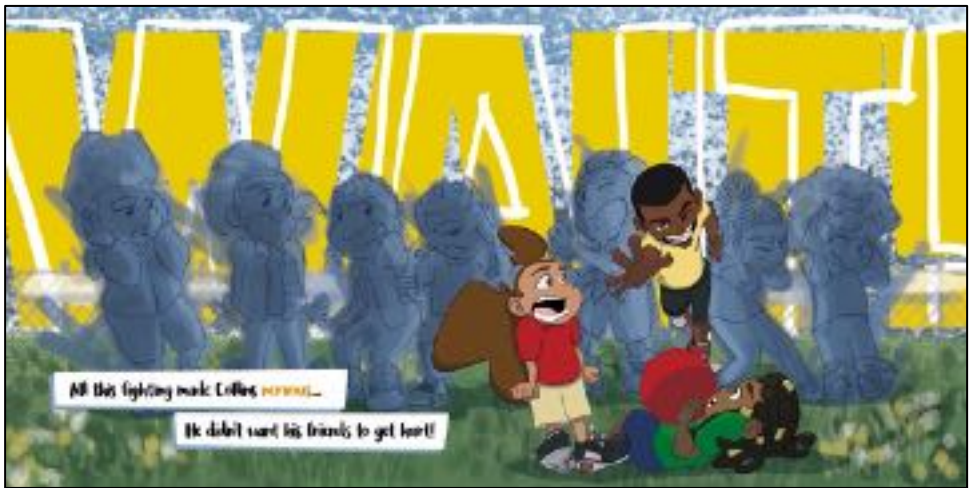

Keilani was upset so Miss K asked if she needed a few minutes to calm down. Keilani said,
"Yes."
Keilani sat down and took a few deep breaths.
She breathed into her belly, counting to 5...
Then she breathed out, counting to 5.
It helped. (a little).


STRONGER TOGETHER
When the class went outside, Keilani didn't feel like playing -
- but she saw Collins chasing a ball, and went to help.


Collins said, Thanks!
He knew Keilani was having a bad day, so he invited her to join his game.

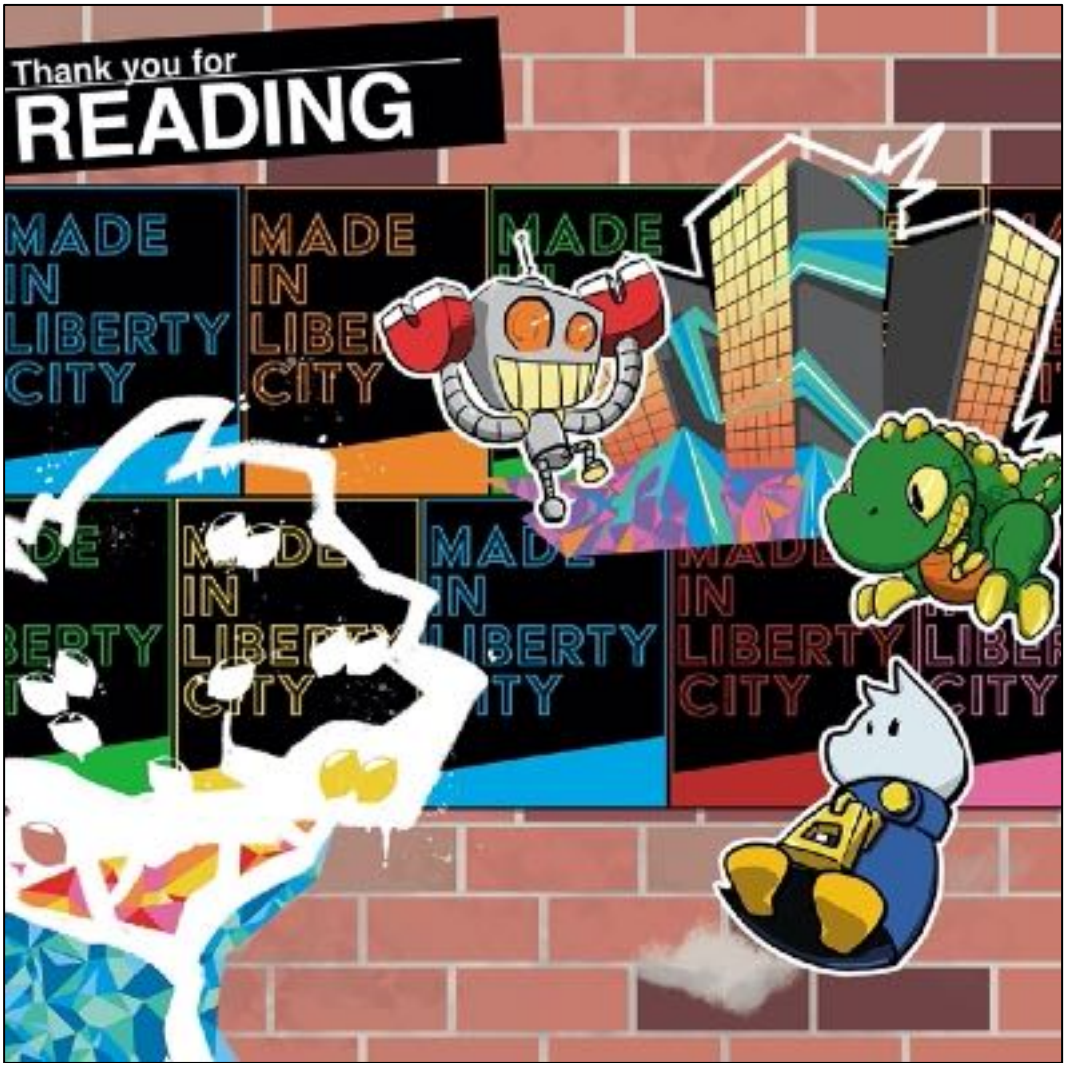

Collins kicked the ball up into the clouds!
Jaliah caught it,
but Keilani saw it first!


Kellani was ANGRY!
She was going to get that ball
GIVE
ME
THE
BALL!


All this fighting made Collins nervous...
He didn't want his friends to get hurt!


Collins said, "Let's ReDo the kickoff"
Kellani knew she had made a mistake, so she said,
"Sorry
You can have the BALL"


Neiland, Jaliah, and Collins were
HAPPY
Looks like the day was turning out to be pretty good after all.


Thank you for
READING
MADE IN LIBERTY CITY

VITA

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SELECTED PUBLICATIONS

Chou, T., & Frazier, S.L. (in press). CORE: Compassion oriented reflection and engagement to guide academic-community partnership. Journal for Participatory Research Methods.

Chou, T., & Frazier, S.L. (2019). Supporting ethical practice in community-engaged research with 4R: Respond, Record, Reflect, and Revise. Ethics & Behavior.

Frazier, S.L., Chou, T., Ouellette, R.R., Helseth, S.A., Hedemann, E.R., & Cromer, K.D. (2019). Workforce Support for Urban After-School Programs: Turning Obstacles into Opportunities. American Journal of Community Psychology. 0, 1-14.

Shernoff, E.S., Frazier, S.L., Lisetti, C., Buche, C., Brown, C., Lunn, S., Delamarre, A., Chou, T., Gabbard, J. & Morgan, E. (2018). Early Career Teacher Professional Development: Bridging Simulation Technology with Evidence-Based Behavior Management. Journal of Technology and Teacher Education. 26(2), 299-326.

Sanchez, A.L., Cornacchio, D., Poznanski, B., Golik, A., Chou, T., & Comer, J.S. (2018).

The effectiveness of school-based mental health programs for elementary-aged children: A meta-analysis. Journal of the American Academy of Child & Adolescent Psychiatry. 57(3), 153-165.

Chou, T., Bry, L.J., & Comer, J.S. (2017). Overcoming traditional barriers only to encounter new ones: Doses of caution and direction as technology-enhanced treatments begin go “go live”. Clinical Psychology: Science and Practice. 24(3), 241-244.

Bry, L.J., Chou, T., Miguel, E., Comer, J.S. (2017). Consumer smartphone apps marketed for child and adolescent anxiety: A systematic review and content analysis. Behavior Therapy. 49(2), 249-261.

Miguel, E., Chou, T., Golik, A., Cornacchio, D., Sanchez, A., DeSerisy, M., & Comer, J.S. (2017). Examining the scope and patterns of deliberate self-injurious cutting content in popular social media. Depression and Anxiety. 34(9), 786-793.

Comer, J.S., Furr, J.M., Miguel, E., Cooper-Vince, C.E., Carpenter, A.L., Elkins, R.M., Kerns, C., Cornacchio, D., Chou, T., Coxe, S., DeSerisy, M., Sanchez, A.L, Golik, A., Martin, J., Myers, K., & Chase, R. (2017). Remotely delivering real-time parent training to the home: An initial randomized trial of Internet-delivered Parent-Child Interaction Therapy (I-PCIT). Journal of Consulting and Clinical Psychology. 85(9), 909-917.

Chou, T., Carpenter, A., Kerns, C., Elkins, R. M., Coxe, S., Green, J.G., & Comer, J.S. (2017). Disqualified qualifiers: evaluating the revised DSM-5 definition of PTSD among Boston-area youth following the 2013 Marathon bombing. Depression and Anxiety. 34(4), 367-373.

Chou, T., Bry, L.J., & Comer, J.S. (2017). Multimedia field test: Evaluating the creative ambitions of SuperBetter and its quest to gamify mental health. Cognitive & Behavioral Practice, 24(1), 115-120.

Chou, T., Comer, J.S., Turvey, C.L., Karr, A., & Spargo, G. (2016). Technical considerations for the delivery of real-time child telemental health care. Journal of Child and Adolescent Psychopharmacology. 26(3), 192-197. doi:10.1089/cap.2015.0043

Chou, T., Cornacchio, D., Cooper-Vince, C., Crum, K., & Comer, J. S. (2015) DSM-5 and the assessment of childhood anxiety disorders: Meaningful progress or persistent diagnostic quagmires? Psychopathology Review.

Comer, J. S., Dantowitz, A., Chou, T., Edson, A. L., Elkins, R. M., Kerns, C., Brown, B., & Green, J. G. (2014). Adjustment among area youth after the Boston Marathon bombing and subsequent manhunt. Pediatrics, 134, 7-14.

Ganea, P. A., Canfield, C. F., Ghafari, K. S., & Chou, T. (2014). Do cavies talk? The effect of anthropomorphic books on children’s knowledge about animals. Frontiers in Developmental Psychology, 5, 283.