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Prevention Science as a Platform for Solving Major Societal Problems and Improving Population Health

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Abstract

The article describes a prevention science approach to impacting population health. We use activities of the Missouri Prevention Science Institute that address youth mental health concerns with a public health approach to illustrate the approach. In particular, we focus on several lessons that may be relevant for advancing the success of prevention and health promotion scholars in addressing major societal problems: connecting small ideas to big solutions, matching intervention targets with goals, developing reliable and systemic monitoring data streams, ensuring data and prevention efforts account for cultural context, and helping people/systems change.

Keywords

youth mental health, prevention science, Missouri Prevention Science Institute

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For over a decade, the Missouri Prevention Science Institute (MPSI; formerly, the Missouri Prevention Center) has served as the hub for our research and practice efforts. From its humble beginnings in 2007 as a volunteer effort of graduate students and faculty (described in three prior publications; Herman et al., 2010, 2019; Reinke et al., 2010), MPSI is now a major research, practice, training, and policy enterprise. MPSI faculty have garnered more than US$50 million of funding to support our work within the past decade, 80% as federal research grants and the remaining as local service-oriented contracts. We have more than 70 employees who are funded in whole or part by MPSI grants including graduate students (≈15), faculty members (≈10), and full- (≈30), and part-time staff (≈20). In addition, we host year-round academic courses, provide clinical training in prevention practices, and deliver community outreach and consultation related to parenting, classroom management, and school climate.

Most recently, with funding and support from our local government, MPSI started two innovative initiatives to support youth mental health in local schools (Boone County Schools Mental Health Coalition [the Coalition]) and a community clinic that serves youth using a family systems model (Family Access Center of Excellence [FACE]). MPSI is the umbrella organization that houses and administers these programs and services. That is, (a) MPSI faculty developed and manage the Coalition and FACE, (b) MPSI fiscal and pre-award staff help administer the Coalition and FACE's human resources and payroll, and (c) Coalition and FACE staff are MPSI employees. These are countywide efforts to improve the social and emotional well-being of all youth in our county and to reduce disproportional juvenile detention and school discipline practices experienced by youth of color.

The Coalition is a partnership among all six county school districts and several parochial schools, encompassing 54 K–12 school buildings (Thompson et al., in press). The Coalition uses a tiered prevention model where we screen all K–12 youth (~25,000 students) in county schools 3 times per year for social and emotional risk factors (e.g., poor social or coping skills, exposure to bullying, problems with attention, disruptive behaviors). Youth identified by the data to be at higher levels of risk are then provided with additional assessments and supports that target those risk factors. Using the screening and assessment data, our team provides technical assistance to all 54 county schools to select and monitor the impact of scientifically based supports. In the 2018–2019 school year, as a result of the checklist data approximately 5,900 youth received an intervention to support their social behavioral or emotional health.

FACE is a sister program to the Coalition and is intended as a school-community linked program to improve access to care for high-risk youth and

their families. Opened in 2016, FACE is a free service where any family with concerns about a child can access a brief evaluation, motivational intervention, and referral to community providers. Families can be referred by other service providers or they can self-refer and access services by making an appointment via an online portal, phone call, or walk-in. Once linked to existing services, FACE provides nonconflicted case management services for families with higher needs. By nonconflicted, we mean that families are free to choose the services they wish to pursue and that FACE has no economic conflict of interest in supporting whatever choices the family makes (e.g., referrals are always to external agencies, not to subagencies connected with FACE). In addition, we work with community providers to improve the quality of care by incentivizing evidence-based practices and providing ongoing training, coaching, and feedback about quality of services provided. In the first 6 months after opening, FACE served more than 300 families; 3 months later, we doubled that total. All of our work through FACE, the Coalition, and MPSI has focused on building a comprehensive, community, and school approach to address youth mental health concerns.

As we reflect on the future direction of prevention and health promotion, we believe many lessons from the development and sustainability of the MPSI may be relevant for students and faculty wanting to broaden their impact. A prevention science framework has guided MPSI since its inception (Kellam et al., 1999). Consistent with American Psychological Association's (2014) Guidelines for Prevention in Psychology, we define prevention as

> consisting of one or more of the following: (a) stopping a problem behavior from ever occurring; (b) delaying the onset of a problem behavior, especially for those at-risk for the problem; (c) reducing the impact of a problem behavior; (d) strengthening knowledge, attitudes, and behaviors that promote emotional and physical well-being; and (e) promoting institutional, community, and government policies that further physical, social, and emotional well-being of the larger community. (p. 285)

Although the principles of prevention science are relatively simple and easy to convey, some of the more nuanced aspects of solving major societal problems may be hard to discern for those unfamiliar with the principles of prevention (Kellam et al., 1999). Equally important, in our opinion, each field that intersects with prevention science brings its own historical perspectives and training that may impede the application of these principles. With regard to prevention and health promotion scholars, we believe the most important and relevant lessons include the following: connecting small ideas to big solutions, matching intervention targets with goals, developing reliable and

systemic monitoring data streams, ensuring data and prevention efforts account for cultural context, and helping people/systems change.

Connecting Small Ideas to Big Solutions

One of the most perplexing comments we have heard repeatedly over the years from many students and colleagues in prevention and health promotion–related fields is that nobody funds their particular research interests. Initially, we attributed this mistaken perspective held by many scholars to institutional myths perpetuated by some of their prior mentors who themselves experienced the inevitable rejection of some of their research ideas by funders. This perspective provided an unsatisfying explanation though, because it left little room for altering these perspectives. More recently, it occurred to us that an overlapping explanation may be that some scholars have not been mentored on how to connect their specific research interests to broader initiatives such as national public health or educational priorities.

First, people who write grants for a range of funders quickly learn that the language of any given field does not easily translate to other fields. This statement is true even for fields with seemingly high levels of overlap such as counseling, school, and clinical psychology. A primary skill in grant writing is learning to convey ideas in the language that a funder will understand. For foundation grants, sometimes this requires heavy use of lay language. For federal funders, it requires the nuanced use of scientific language that appeals to the funder's priorities.

Second, funders will not be interested in your ideas simply because you believe they are intuitively appealing and important. Everyone believes his or her work and ideas are important. The task is to convey the concepts in a way that others can easily see how your ideas are part of the solution to big problems. If you are unable to show how your ideas connect to important national priorities, then it is reasonable for funders to decline to invest in your ideas. Sometimes that simply means that you need to get better at connecting the dots between your interests and the funder's priorities.

Child Depression Example

My (K.C.H.'s) initial work in children's mental health focused on articulating a comprehensive theory of child-onset depression and then identifying and testing proximal causes, especially modifiable aspects of the social environment that contribute to depression risk (for detailed discussion, see Herman et al., 2010). Curiously, though, I have never had a grant funded with a primary focus on child depression. There are no journals devoted to the topic

and there is limited funding for it. I might have easily concluded that funding for child depression was so rare that it made my work unfundable. Instead, because I had been well-mentored, I was well aware of the need to connect my interest, my theory of how depression developed and could be prevented, with national public health and education priorities.

A large strand of my research has focused on specifying developmental pathways to depression in youth and identifying universal as well as culture-specific precursors to depression. An early paper reviewed the sociocultural contributions to depression (Parks & Herman, 2003). Some of my work has identified common pathways to depression in young children including early language (Herman et al., 2016), social (Herman, Cohen, et al., 2018), and academic skill deficits (Herman et al., 2008; Herman, Hodgson, et al., 2020; Herman, Lambert, et al., 2007; Herman, Ostrander, Walkup, et al., 2007), as well as aspects of the home environment (Ostrander & Herman, 2006). Other work has highlighted the unique cultural aspects of depression including the relative role of family cohesion/conflict and particular cognitions (Herman, Ostrander, & Tucker, 2007), racism experiences (Lambert et al., 2009), and perfectionism (Herman et al., 2013) for Black youth living in urban contexts. I also explored unique predictors of depression among youth in China living in poverty (Herman, Bi, et al., 2012).

In line with the prevention science research cycle, I also investigated the effects of parenting and classroom management interventions that manipulated hypothesized causes of youth internalizing symptoms. The first paper was a randomized control trial from an existing data set, which found that a parenting intervention could reduce child depressive symptoms, in addition to its known and targeted effects on externalizing behaviors (Webster-Stratton & Herman, 2008). In a second paper, again using data from an existing randomized controlled trial (RCT), we found that integrated parent, child, and teacher interventions yielded stronger effects on reducing child internalizing symptoms (Herman, Borden, et al., 2011). These intervention studies are consistent with the prevention science notion of "malleability through experimental manipulation" (Kellam et al., 1999); that is, showing that altering a proposed causal mechanism specified by my conceptual model (parenting behaviors, school contexts) caused change in the outcome (internalizing symptoms). As such, the findings provide additional evidence that the mechanism serves both a causal and maintaining function of child symptoms. *All of these papers provide support for a primary thesis of my conceptual model, that family and school environment characteristics and parenting behaviors play a central role in the development and maintenance—or alternatively, the mitigation—of child depressive symptoms*.

It is this big picture understanding of the contextual antecedents of depression that ultimately allowed me to connect my work to funding priorities. Two of our large federal grants focused on supporting teacher skills in providing nurturing and effective learning environments, essentially antidotes to the known school risk factors for child depression. The first grant focused on evaluating the Incredible Years Teacher Classroom Management program for elementary school teachers (Reinke, Herman, Dong, et al., 2018). An ongoing grant is evaluating the CHAMPS classroom management program in middle schools (Herman, Reinke, Dong et al., 2020). Another stream of funding supports student skill development in self-management strategies (Thompson et al., 2011). And finally, two recently funded grants focus on supporting principals to provide effective, safe, predictable, and nurturing environments for an entire school. All of these projects focus on providing better environments for all students, which include the environments known to be helpful for youth with depression. I would have never been funded to investigate these important research questions had I not first been able to articulate the big ideas of what causes child depression for myself, and second been able to communicate these ideas in ways that aligned with funding agency priorities.

A Public Health Approach: Match Intervention Level to Social Change Goals

In training psychologists and educators, one thing we have been struck by is that many students have great difficulty in learning to think and conceptualize problems using a public health lens. On one hand, this makes perfect sense given that most students were attracted to the field because of their interest in doing individual or micro-level counseling. On the other hand, limited awareness of a public health perspective creates a disparity for many students who want to create broader social change. Individual counseling is an excellent tool in our repertoire for changing individual outcomes, but by itself it fails to alter the societal and contextual risk factors that create and maintain the problem. In essence, to focus on the individual as a principal route for changing larger social issues is myopic and misguided. Instead, solving major societal problems requires a focus not only on helping individuals but also on altering the risk and protective conditions that surround the individual (Herman et al., 2010; Kellam et al., 1999). For example, if your passion and your career goal are to provide more effective interventions and supports for students who experience racism, then individual counseling may be an important tool to reduce the adverse impact of these experiences and a public health orientation may not be

necessary. If instead your goal is to reduce institutional racism in colleges or society more broadly, individual counseling is unlikely to make much of a dent in that problem. Instead, you need more systemic tools and frameworks to broaden and guide your work.

To overcome these challenges, we infused public health concepts and strategies into much of our coursework for counseling, educational, and school psychologists, as well as social workers. Orientation coursework in each field includes examples of epidemiology and public health interventions in educational and psychological contexts. For instance, students learn about strategies for triannual screening entire schools and districts for reading, math, or social emotional problems and using that data to inform implementation of selective and indicated supports for students in need. In later coursework, students learn how to implement such screening and prevention approaches and, during practicum experiences, participate in their actual implementation. Other courses use this public health orientation to expand the students' thinking by asking them to conceptualize how these strategies can be used to address other social problems of interest to educators, psychologists, and social workers. For instance, a course on developmental psychopathology focuses on the timing of developmental risk and protective factors and their relationship to the emergence of psychopathology. Students use this information to conceptualize the common malleable precursors to psychopathology and to strategize the optimal timing of screening and early intervention strategies to interrupt the casual sequence.

MPSI Example

Consider the goals of the MPSI, which include reducing the prevalence and burden of youth mental health problems. If we solely went about our business developing individual or even small group treatments for youth mental health concerns, our success would be extremely limited. For example, in some schools with high needs, 50% or more of youth may present with one or more serious behavioral or emotional concerns (Tolan, 1996). Schools or communities would never have the resources to provide intensive individual counseling services to meet the needs of such a large segment of the population. Instead, a public health approach is needed. In this framework, the only realistic way to address the needs of all students is to provide stronger universal and selective supports for students to reduce the prevalence of youth with intense needs. Thus, if scholars want to be true prevention scientists, our theories and intervention skills need to be much broader than those situated within an individual-oriented approach to the world.

Surveillance and Data Streams

In line with a public health perspective, prevention and health promotion scholars with passions to solve societal problems need to learn how to collect and use surveillance systems. Surveillance is an epidemiology strategy that includes collecting continuous data streams that monitor targeted problems and associated risk and protective factors (see Herman, Riley-Tillman, & Reinke, 2012). Although many educators and psychologists are trained in traditional approaches to measure development and interpretation, such training is insufficient in itself to be useful in addressing real-world concerns about day-to-day decision-making. Routine use of data usually fails because most measures are too burdensome to be collected regularly and too insensitive to capture the critical elements of change.

Coalition Example

An example of a comprehensive surveillance system includes the student and teacher checklists we developed as part of the Coalition (Reinke, Thompson, Herman, Holmes et al., 2018; Thompson et al., 2017). The Coalition is funded by an innovative sales tax that voters passed in 2012 to support youth mental health. Based on the tax, every four dollars that consumers spend in our county generates one penny for the fund, which accumulates to nearly US$7 million per year.

After the tax passed, superintendents from all six school districts in our county bonded together to identify the most effective use of these funds based on their collective needs. They invited the second author (W.M.R.) to attend an early meeting to hear her perspective. Historically, leaders in our local school districts were skeptical of university partnerships because many of them had prior negative experiences with researchers. In particular, our schools reported concerns about "helicopter" research where researchers would collect data from students and teachers for their own purposes and then not work with the schools to share or apply any knowledge that was gained from the project. Our team had worked for several years to overcome these perceptions, providing clinical services and supports, and trying to meet districts and schools where they were at to meet their needs. We believe this patience, not insisting on doing research in their buildings, helped develop positive relations with many leaders who came to view us as a resource. It was this context that led them to invite us to be part of the Coalition.

We recommended that the superintendents pursue a public health solution to the high rates of youth mental health concerns they were all experiencing. As a critical step, we encouraged the Coalition to administer a surveillance

tool triannually to document the patterns of youth social emotional symptoms and precursors. Although many other youth mental health screening tools were already available, the superintendents expressed concerns about their recurring costs (typically US$1 per student, each administration), the time burden for teachers to complete (often hours per class), and the excessive identification of students in need of services that would overwhelm each school's capacities to serve them. Based on these concerns, we proposed to develop the Early Identification System (EIS), a brief, comprehensive yet efficient tool for monitoring youth social emotional health in schools and sought funds from the county tax to do so.

The EIS was based on a careful literature review of risk and protective factors of youth mental health concerns (see Huang et al., 2019). It includes both a teacher version (K–12) and a student version (3-12). The teacher EIS checklist asks teachers to identify students in their classroom exhibiting particular risk for emotional or behavior problems. Because the checklist does not require the teacher to rate each child on all risk factors (instead it just asks them to check "yes" for students with the risk), we reduced the time burden for rating an entire classroom down to about 10 min. Similarly, the student checklist is brief (2–10 min) and is completed online. The tools are easy for users to understand; a brief script is provided to them about the purpose and use of tool, and no training is needed to complete the measure. Each teacher and student has a unique user ID, populated by our web-programmer based on information provided to us from schools regarding student rosters for each class. Regional Coordinators, Coalition technical assistant staff members, support schools by helping them identify times to administer the surveys and problem solve occasional technology or access issues. Over time, each school becomes increasingly independent as they gain experience administering and interpreting the EIS.

As soon as the EIS checklists are completed, schools have access to an online dashboard that presents their data to them. Notably, the EIS scores are based on local norms, where risk is calculated based on mean scores within a school building. This helps identify the students most in need of services relative to their immediate peers and helps limit the burden on a given system. For instance, a school in a distressed neighborhood with rates of family poverty would likely have very high percentages of their students deemed to be at or in risk compared with national normative comparisons, but the locally normed EIS would keep the school focused on a more manageable number of students most at risk. The EIS data are also calculated based on *z* scores in this local context, so the students most at risk are always around 5% of the student population (i.e., 2 standard deviations above the local mean).

These checklist data highlight student-level risks, which allow school personnel to make data-based decisions about how to improve the socioemotional context of their building and/or to provide additional screening and supports to individual students identified with needs. Equally important, these data can also be aggregated to examine risk across an entire grade level, school building, district, or county providing school and community leaders with detailed population-level information useful for informing policy development, applying resources, or selecting universal intervention strategies. Using these systems, Coalition schools gather student and teacher checklists on nearly 25,000 students 3 times per year to provide ongoing information about the correlates of youth mental health concerns.

Regional Coordinators support school personnel in collecting, interpreting, and using the data to make decisions about universal, selective, and intensive individual supports that are needed in a building (Reinke, Thompson et al., 2018; Thompson et al., 2017). Coordinators are employed by the university and come from a variety of training backgrounds including school psychologists, school counselors, and school social workers. Each Coordinator is assigned to provide technical assistance to approximately five school buildings. In particular, they provide training to school problem-solving teams, typically composed of counselors, special educators, teachers, and administrators, about the model and the use and interpretation of the EIS. Based on school needs, they also help conduct universal prevention interventions (e.g., whole school or class trainings) and selective and indicated interventions (e.g., small group or individual behavior support plans) and train school professionals in each building to do the same. For instance, one school's data showed a high prevalence of organizational skill deficits. It would have been unrealistic to provide each student in the building with intensive individual counseling to improve their organization and planning skills; the school opted instead to provide whole school trainings for all students. Students who continued to struggle after receiving this training then received additional more individualized supports. The ongoing data streams then informed the school whether their efforts were helping reduce the overall prevalence of the problem.

Several recent papers highlight the promise of the Coalition model and the EIS in particular (Herman, Reinke, Thompson et al., in press; Huang et al., 2019; Reinke, Herman, et al., 2020; Reinke, Thompson, et al., 2020). A series of papers have supported the factor structure and measurement invariance of the EIS, and the acceptable to excellent diagnostic accuracy of each subscale across elementary and secondary samples. Even more important, a paper currently under review found that students in Coalition schools have experienced a steady decline in the mean slope of youth mental health concerns over the

past 3 years, a trend that runs counter to the increasing rates of youth mental health concerns documented across the United States (Reinke, Thompson, et al., 2020). Moreover, students with stable low or decreasing levels of youth mental health risks were significantly more likely to be in Coalition schools with high levels of fidelity to the Coalition model (i.e., schools that were fully implementing the screening and intervention supports), whereas students with stable high and increasing levels of risk were more likely to be in low fidelity schools during the past 3 years. More information about the Coalition model and resources is available on its website: http://bcschoolsmh.org/

Cultural Context

Obviously, some of the big challenges for our community, much like other communities throughout the nation, have to do with institutional racism, sexism, classism, and other biases that undermine the health and development of youth (Pascoe & Smart Richman, 2009). We consider the intersection of culture with all of our outreach, training, and research efforts to maximize the impact of our work. In our teacher consultation work, we have had the privilege to contribute to the development of Double Check (Bradshaw et al., 2018), a theory-based professional development (PD) and coaching model for improving cultural proficiency of teachers. The Double Check coaching component of the framework is based on the Classroom Check-Up (CCU; Reinke, Herman, & Sprick, 2011). In a recent study, we identified one viable observable indicator of culturally responsive classroom practices using an existing CCU observation systems tool, the Student Classroom Interaction Observation system (ST-CIO; Reinke et al., 2016). We found that teachers were more likely to deliver negative feedback to African American students than White students and that this feedback predicted escalation of end-of-year behavior problems even after controlling for baseline behavior problems. Differential reprimand rates between racial and ethnic student subgroups may be one concrete indicator of teacher cultural interactions that have adverse impact on students of color.

FACE Example

One of the primary impetuses for the development of FACE was that data revealed our county had a high prevalence of mental health concerns among our youth and one of the highest disproportionate rates of minority youth–law enforcement contact in the state (Institute of Public Policy, University of Missouri, 2011a, 2011b; Turley, 2017). FACE emerged with the strong backing of local law enforcement as an alternative solution in an effort to reduce

the number of youth coming into contact with law enforcement as a result of social, emotional, and behavioral health problems.

In planning FACE, much effort went into addressing the historical barriers to care experienced by youth of color and families with limited economic means. These barriers include difficulty recognizing the early signs and symptoms of oncoming mental health problems, lack of information on where to get help, lack of resources to access help, and lack of the effectiveness of that help once it is accessed. In addition, many families are marginalized by care systems, having experienced racism or discrimination in their interactions with these systems, and thus have developed a set of perceptual barriers to seeking help (see Herman et al., 2014).

To overcome these barriers, FACE relies on an integrated approach. First, the countywide data collected via the Coalition screening system helps facilitate the early identification of youth with mental health needs. Schools have become a primary referral source to FACE because of this screening process; more than half of all FACE referrals have consistently come from the schools. Second, FACE employs three to four community liaisons who are respected persons from targeted communities. The liaisons have a range of backgrounds (interested parents, retired teachers, paraprofessionals) and are selected based on their communication skills and potential as social influencers. They receive ongoing training and support from MPSI faculty and from the FACE director and community outreach supervisor. The use of community liaisons is a well-established method for increasing engagement for often difficult-to-reach families and helping overcome many of the structural and perceptual barriers to care (Olin et al., 2010). Third, FACE uses community engagement strategies, including social awareness campaigns and use of community liaisons to promote awareness of the services offered by FACE and to reduce stigma of mental health issues and help-seeking behaviors.

Fourth, once families are willing to talk to a service provider, strategies are needed to support the provider in using conversational strategies that are more likely to build engagement and motivation among historically disenfranchised families. To increase family engagement in treatment and intervention strategies tailored to meet their needs, we utilize a nonconflicted case management approach that involves a combination of motivational interviewing (MI; Miller & Rollnick, 2012) and personalized feedback and goal-setting, similar to the Family Checkup (FCU; see Herman et al., 2014). FACE is designed to be a one- or two-session FCU; optimally during a single visit, parents and children above age 8 complete a brief online questionnaire about their basic needs (food, shelter), developmental history, family function, youth and adult mental health symptoms, and school functioning. The questionnaire comprises public domain (free), psychometrically sound measures

of each construct of interest. Answers to the surveys populate a feedback form that highlights areas of strength and of concern (e.g., scores that are 1 standard deviation or more above the mean).

As noted previously, nonconflicted case management puts youth and families at the center of the decision-making process regarding problems and treatment strategies rather than using the typical treatment model that relies on professional diagnoses and prescriptive treatment approaches for addressing problems that are located with the individual or the family unit. In a nonconflicted case management approach, well-trained professionals walk alongside families and assist them to appraise key domains of functioning (e.g., youth adjustment, family adjustment, family relations, conduct problems, school adjustment). Professionals then engage families in a feedback session using the data to reflect the degree of health in each of these domains—which facilitates a conversation with the family that helps them prioritize their primary concerns. Next, families develop goals before selecting services and providers of their own choice that will target their concerns.

Fifth, to overcome financial barriers and lack of service providers, FACE has a "no one will be turned away" policy. All families who request services receive them. Sixth, research on systemic coordinated efforts to improve community mental health treatment suggests that improving access to services is not enough if the services themselves are not effective (Weisz et al., 2013). Thus, a primary component of FACE is to incentivize and improve access to community providers to evidence-based trainings and coaching to support the ongoing implementation of effective practices.

Next, FACE relies on an integrated information management system to track and monitor the progress of all FACE families and to develop strategic community improvement goals reflected in the assessment data. The system serves as a hub for all assessments and feedbacks delivered with families. Equally important, the system tracks all contacts with families to determine follow-through in attending appointments both with FACE and with community referrals. These types of data permit investigators and policy makers to examine where families may become disengaged with seeking help. We also follow families after referral and track progress using simple monitoring tools. This information is reported back to our Board and stakeholders on a regular basis to assist them in identifying needed community programs or to host policy development discussions that will reduce contextual barriers to treatment.

One important aspect of FACE that needs to be mentioned is the influence brought to FACE to reduce the documented contextual barriers for families to access and remain engaged in a service plan. To reduce systemic barriers that

families experience, FACE is governed by a neutral board of community representatives. By neutral, we mean that the governing board consists of persons from various sectors that have little vested interest beyond helping youth and families access services to improve their lives. These unconflicted board members include representatives such as school superintendents, public health officials, family court judges and mental health legal experts, law enforcement, and juvenile court personnel. These influential board members support developing a range of treatment options for families rather than relying on an authority-based model where families are directed to programs that may run counter to their own goals or interests.

Recent papers suggest our efforts are paying off. Approximately 300 families engage (i.e., complete the assessment and feedback session and link to services) in FACE services each year. We administer the Top Problems Assessment (TPA; Weisz et al., 2011), a validated symptom tracker tool, at baseline and weekly for at least 4 weeks after the families complete the in-person assessment and feedback session. Parents of youth who engage in FACE services report large and significant reductions over time in all three of the top problems they identified at baseline (Herman et al., 2019). In addition, we recently found that youth who engaged in services compared with those who were referred but do not engage experience significant improvements in school functioning including academic achievement, discipline referrals, and attendance (Thompson et al., 2020). Notably, youth of color who were referred to FACE are equally likely to engage in services as White youth; in total, youth of color represent half of all youth served by FACE (Thompson et al., 2020). These data suggest that FACE strategies are helping to overcome national disparities that indicate that mental health visit rates are 68% lower for Black youth and 62% lower for Latina/o youth versus White youth (Marrast et al., 2016). More information about FACE and related resources are available at its website: https://faceofboonecounty.org/

Helping People/Systems Change

A major barrier to effectively implementing strategies to promote effective environments for youth is adult willingness, readiness, and/or ability to participate in services (Herman et al., 2014). In this sense, solving big societal problems requires interventions that move individuals to action—this action may include individual counseling (recall it is a useful tool in our kit), but likely requires additional strategies for broader influence. Effective prevention scientists need a theory about the leverage points that move people to action. How do you arrange environments so that people are more likely to be willing, ready, and able to make the changes you request of them? An

emerging line of research for our team is using MI and social marketing principles to help remove these barriers and promote active parent and teacher involvement in supports for youth. We are particularly interested in identifying and removing barriers for families who are traditionally marginalized in education and social service settings. For instance, one major barrier to family engagement in education is the bias many parents report experiencing in the interactions with school personnel. In particular, many teachers unwittingly judge parents differentially and these judgments can have lasting negative effects on not only family engagement but also youth educational and social emotional outcomes (Stormont et al., 2013). In particular, teachers may form negative opinions of parents whose children are struggling academically and/or behaviorally in the classroom and parents from different racial, ethnic, and/or social class backgrounds (Stormont et al., 2013). Unfortunately, these are often the parents and children who need the most support from the education system but often feel the most unwelcome. Our recent papers have highlighted the importance of teacher perceptions of comfort with parents in contributing to this marginalization. In two group RCTs, we have shown a teacher-focused intervention can reduce these biases (Herman & Reinke, 2017; Thompson et al., 2017).

A second barrier to impacting the positive health, development, and educational outcomes for youth is teacher willingness and skill to deliver effective classroom management practices. While effective classroom management practices have been available for decades, most teachers continue to report that they receive little training in these practices (Reinke, Stormont, Herman et al., 2011). To address this need, we developed a brief teacher consultation model, CCU, to promote teacher motivation and skill to implement these practices (Reinke, Herman, Sprick et al., 2011). Based on the promise of studies using the CCU, we received funding from the Institute for Education Sciences (IES) to create an online training and support platform for its dissemination: http://classroomcheckup.org/. With additional IES funding, we are now evaluating the effects of this brief and simple model on teacher and youth outcomes via a large-scale efficacy trial. Similarly, we have published several peer-reviewed articles about the infrastructure and supports needed to promote effective practices in schools (e.g., Darney et al., 2013; Herman, Bradshaw, et al., 2012). In addition, we have several recent papers and a book on using MI with families and integrated parent engagement strategies with existing evidence-based interventions (Herman, Borden, et al., 2011; Herman, Bradshaw, et al., 2012).

Finally, teacher stress is another barrier to effective teacher practices in schools. In two recent papers, we reported that nearly all elementary (Herman, Hickmon-Rosa, & Reinke, 2018) and middle school teachers

(Herman, Prewett, et al., 2020) report high levels of occupational stress and that high teacher stress and low levels of coping are related to an assortment of negative student outcomes. In response, we wrote a book to support teacher coping (Herman & Reinke, 2015). A recent RCT with 52 teachers found that teachers who received a bibliotherapy intervention based on the book had significantly lower levels of stress, substance abuse, anxiety, and depression than teachers in a wait-list control condition (Eddy, 2020). The effect sizes were in the moderate to large range suggesting the promise of this brief, easy-to-disseminate model in reaching and impacting the health of large numbers of teachers. We recently placed materials and webinars online, freely accessible to teachers as a resource to support their health during the COVID-19 pandemic: http://moprevention.org/profess/resources/print-resources/. In the coming months, we hope to evaluate the impact of this modified version of the program on teacher health outcomes.

Conclusion

Most prevention and health promotion scholars enter the field to change the world in some way. Each of us has our own passion for improving the personal conditions of individuals we work with if not the human condition more broadly defined. Such lofty goals require more than passion to achieve success. Most of the big world problems that move many of us to action are so entrenched that they will not yield to simple, unplanned solutions. Instead, smart and strategic planning and coordinated actions at multiple levels are needed to change the world. Prevention science gives us an excellent framework for helping move the needle. It is our hope that some of the ideas and strategies expressed here will spark even more prevention and health promotion scholars to see how they can take the next step in connecting their passions to world solutions. In addition, prevention science is a professionally agnostic approach that permits multidisciplinary teams to come together around a common set of principles (Kellam et al., 1999). Such a framework creates a common language between professionals from various backgrounds to speak about problems and break down artificial professional barriers. Furthermore, it permits the emergence of integrated and effective solutions to prepare youth for success where they can develop academic and social competence, learn healthy coping skills, and cultivate a healthier community.

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