

Response to [NIH RFI NOT-OD-23-030](#)

Submitted March 1, 2023 via webform: 1000 words per response. For this reason references are not cited within most responses but are available upon request.

Topic 1: Below, please provide information regarding the most significant documented or emerging SDOH that contribute to poor mental health or psychological distress across the lifespan in HD populations.

On behalf of the American Psychological Association, I appreciate the opportunity to provide information that may assist in developing research programs to prevent mental health disparities and promote mental health. APA is the nation's largest scientific and professional nonprofit organization representing the discipline and profession of psychology, as well as over 146,000 members and affiliates who are clinicians, researchers, educators, consultants, and students in psychological science.

In response to a 2020 Request for Information, APA supplied information to NIMH about several measures of the Social Determinants of Health. Among the more salient items that we highlighted in our comment is interactions with law enforcement. In this comment, we wrote, "Interface with law and/or immigration enforcement: [This] pertains to interactions with law or immigration enforcement, as well as fear of having an interface with law or immigration enforcement. Native Americans have the highest rates of deaths during police encounters (Harvey, 2020). However, there have been several recent high-profile deaths of African-Americans during encounters with law enforcement. The resultant discussion highlights a long-standing community concern about mistrust and fear of law enforcement among marginalized communities. J. Bor and colleagues showed a connection between exposure to police killings and degradation in mental health. (Bor, Venkataramani, Williams, Tsai, 2018) Moreover, recent escalation in anti-immigrant policies, actions, and hate crimes has impacted many Latinx communities, and have increased mistrust and fear, as well as exposure to discrimination, stigmatization, and difficulties in communication. Latinx immigrants often face challenges in accessing and navigating needed physical health and mental health care. Also, among Latinx immigrants with temporary or undocumented immigration legal status, the threat of deportation or family separation in the midst of this pandemic due to loss of their protected immigration status, detention, or deportation is leading to considerable distress and worsening mental health." Garcini, et al, 2022, also highlight immigration legal status as a social determinant of health influencing the mental health of historically marginalized immigrant communities. However, immigration status is often left out when considering the impact of the current context on mental health of immigrant communities.

References

Bor, Jacob, Venkataramani, A.S., Williams, D.R., Tsai, AC. (2018). "Police killings and their spillover effects on the mental health of black Americans: a population-based, quasi-experimental study," The Lancet Journal, 392:10144, P302-310.

Garcini, Luz M., Kimberly Nguyen , Autumn Lucas-Marinelli , Oswaldo Moreno , Pamela L. Cruz · "No one left behind": A social determinant of health lens to the wellbeing of undocumented immigrants. **Current Opinion in Psychology**. Volume 47, October 2022, 101455

Harvey, Matthew. "Fatal Encounters Between Native Americans and the Police," Federal Reserve Bank of Minneapolis, March, 2020.

Topic 2: Below, please provide information regarding how directly addressing SDOH can help to prevent poor mental health or promote mental wellness in HD populations.

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Given the restrictions of the response form, we are prioritizing a discussion of physical activity as a preventive intervention. This information is derived from a 2023 chapter draft prepared for inclusion in a research agenda to support primary mental health care. Alan Kazdin reviews literature on the benefits of expanding opportunities for physical activity in multiple populations.

- Physical activity and exercise have benefits that are very well established in research. These benefits include those related to mental disorders (e.g., symptoms of many psychiatric disorders including depression and anxiety), mental health more generally (e.g., subjective well-being, quality of life), and physical health (e.g., morbidity and mortality and scores of physical health symptoms);
- Physical activity and exercise can take on many forms to accommodate individual preferences over the span of one's life and across cultural, ethnic, and geographical conditions;
- The intervention can be used without a special trained professional of any kind or special equipment or facilities;
- Vast evidence-based resources exist online that can be used to guide physical activity and exercise, set goals, monitor progress, and provide encouragement. These can be age adjusted, or can appeal to features of the population (e.g., age, ethnicity, level of activity);
- Physical activity and exercise avoid the standard structural barriers (e.g., insurance, availability of a mental health professional, mental health setting) and attitudinal barriers (e.g., stigma, self-stigma, mental health illiteracy) that often impede delivery of mental health services. However, there remain disparities (e.g., ethnic, cultural) in the rates of engaging in physical activities that must be addressed with any intervention;
- Laws, policies, and practices in schools, homes, and workplaces do not optimally support engaging in physical activity, but physical activity increases when they do; and
- Multiple sources of influence (e.g., message framing, choice architecture, the media, influential "media" figures, social networks) could be mobilized to better model, encourage, foster, and support physical activity and exercise in the nation's youth.

Spanning multiple studies, exercise consistently demonstrates its capacity to reduce the symptoms of anxiety disorders like obsessive-compulsive disorder, as well as affective disorders, eating disorders, substance use disorders, schizophrenia/psychosis, and cognitive impairment. It also improves quality of life and feelings of subjective well-being. For example, a recent meta-analysis showed significant benefits of physical activity in reducing clinical depression. The benefits were especially marked among those who had not previously engaged in physical activity, but the benefits are not limited to this group. The authors estimated that if individuals who had not engaged in exercise began an exercise regimen, this would reduce the prevalence of the disorder by 11.5 percent. Even minimal amounts of physical activity have proven to have some degree of mental and behavioral health benefits.

Strengths

There are special features of physical activity that also serve as an intervention for mental health and well-being:

- The range of activities that “count” as exercise is vast. Among the consequences, one can engage in activities in one’s home, at school, or at work and by oneself and with others. Also, over the course of a person’s week or life, one can change activities and still be involved in physical activity.
- The benefits have been demonstrated across the age spectrum (e.g., children, adolescents, adults, older individuals). Thus, physical activity can occur throughout someone’s lifespan but the benefits accrue when they begin at any age.
- Opportunities for exercise can be integrated in multiple settings (e.g., preschools and schools at all levels, the workplace, assisted-living facilities);
- Physical activity has broad benefits beyond mental health. Large-scale studies have shown that physical activity reduces the risk, onset, and severity of many physical disorders and medical conditions (e.g., cancer, hypertension, diabetes) and morbidity and mortality (e.g., cardiovascular disease, all-cause mortality).
- Physical activity is a highly scalable intervention because it does not require specially trained professionals or special equipment or facilities. Also, the intervention can reach individuals and settings that are routinely underserved in relation to traditional mental health services. Many online, web-based, and applications (apps) are readily available and without cost. These can provide a virtual coach or trainer, provide encouragement, monitor progress, and help with goal setting for individuals who would like assistance. Other technologies that are currently available (e.g., virtual reality games that require physical activities, smartwatches to monitor activity) also can support physical activity and exercise;

Limitations

Apart from the special features of physical activity, there are qualifiers worth noting.

- The scientific research has emphasized the benefits of physical activity with adults, although there certainly is evidence related to children and adolescents including reviews and meta-

analyses. Yet, engaging adults (e.g., parents and relatives) in consistent physical activity is likely to be one of the best ways of instilling the same habit in children as well;

- Physical activity is not suitable for everyone, in terms of interest or physical ability. Individuals with various chronic physical conditions or disability may require special activities to accommodate their situation. Even so, there is a vast range of options that constitute physical activity and a wide age range of accommodations to those activities.

The most difficult challenges are two-fold. First, it will be important to devise ways to increase adoption among children and adolescents and in the settings in which they function (e.g., schools, parks, social activities). Second, it will be important to monitor at a national level the engagement in physical activity and whether any interventions are in fact improving adoption. Monitoring impact in adoption and eventually mental health are as essential as the interventions themselves.

Topic 3: Below, please provide information regarding new intervention strategies addressing SDOH that can promote mental wellness, reduce psychological distress, and prevent the development of mental health problems in HD populations. Specifically, strategies that can be done by:

- Individuals
- Families or peers or social networks
- Organizations such as schools, workplaces, businesses, housing complexes, neighborhood associations, consumer advocacy groups, faith-based organizations, and other community-based organizations
- Local service sectors such as health and behavioral health, public health, housing, social services, child welfare, education, justice systems, transportation, parks and recreation, commerce, etc.
- Local governments
- Communities as a whole

This information is derived from a 2023 draft chapter being prepared to support a research agenda for primary mental health care. Kiara Alvarez and Ellen-ge Denton address community-based interventions to contribute to the mental health of youth.

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- Place-based initiatives, which focus on multi-sector collaboration to address concerns in a particular neighborhood or community, provide infrastructure for primary prevention of mental health concerns. They can also include strategies to improve the interface between community resources and specialty mental health services. Community schools initiatives are one key area where a place-based, youth- and family-focused approach can be expanded through funding and improved evaluation.
- Structured organizational and community-level interventions, such as the ARC and Communities that Care models, can guide the development of community-based infrastructure for mental health. Drop-in, low-barrier mental health and social services access models have been disseminated successfully in many countries and can form a model for youth-focused approach to community mental health in the U.S.
- Community leadership and coalitions are key to the long-term success of establishing community infrastructure for mental health; however, they are often not given the resources to center their expertise or the expertise of parent and youth leaders.

A population-based approach to youth mental health care necessitates establishing community-based infrastructure to ensure access to primary, secondary, and tertiary prevention and intervention strategies in the settings where youth naturally spend their time. Community-based infrastructure can also extend the reach of formal health and mental health services, with the goal of reducing barriers to care and coordinating mental health care with other necessary services and resources.

Key Elements

Across conceptual models (Burgemeister et al., 2021; Jacobson, 2016; Moore & Fry, 2011), there is consensus that a population health approach to children's mental health requires a focus on strategies that are: **multi-level**, meaning they address multiple levels of a child's context and experiences, including the individual, family, and community levels; **multi-sector**, meaning they bring together a range of organizations and key partners focused on child and family well-being; **integrated across service systems**, meaning that services are coordinated and work in conjunction with each other rather than in isolation; and **integrated across prevention and intervention areas**, meaning they strive to address multiple outcomes relevant to children's well-being, rather than one issue or concern.

Specifically, the key elements of a community-based infrastructure for mental health may include: the physical infrastructure of neighborhoods and service delivery locations; the social infrastructure available to parents and children; the service system infrastructure spanning education, health, and social service sectors, among others; the available community resources; and the policies and practices that govern these systems, including those established by government partners, community coalitions, and other convening groups (Bell & McKay, 2004; Ferris & Hopkins, 2015; Moore & Fry, 2011) .

Physical and social infrastructure

Place-based initiatives, which focus on multi-sector collaboration to address concerns in a particular neighborhood or community, are a key example of this community-based infrastructure. Moore and Fry

(2011) describe the challenge as one of creating “joined-up solutions” for “joined-up problems,” with action “needed on three fronts simultaneously: building more supportive communities, creating a better coordinated and more effective service system, and improving the interface between communities and services” (The Centre for Community Child Health, 2010; as cited in Moore and Fry, 2011, p. 5 v. ii). Place-based initiatives are not a new phenomenon; various iterations of these have taken place over the past fifty years in the United States, with funding for them having come from both philanthropy and government initiatives (Ferris & Hopkins, 2015). Some examples include federal initiatives through which funding is disbursed to states, including Promise Neighborhoods and Promise Zones.

However, despite enduring interest in place-based initiatives, challenges to evaluating their success have persisted. For example, a review of the effectiveness of place-based interventions in improving early childhood health and development found that 10 out of 11 studies reported at least one positive outcome; but these represented only 36% of the total of 83 outcomes reported (Burgemeister et al., 2021). Evaluations of multi-level, multi-sector initiatives that involve multiple interventions aimed at multiple outcomes (e.g., financial, educational, health) are by definition complex to design and carry out and are time and labor-intensive (Burgemeister et al., 2021; Ferris & Hopkins, 2015; Moore & Fry, 2011). It is also unlikely that meaningful results can be observed in the short term; however, funding windows tend to limit the length of follow-up (Burgemeister et al., 2021). As a result, many initiatives have typically relied on evaluation of interventions at an individual level, rather than being able to show outcomes for a place-based initiative as a whole. Evaluations have also tended to focus on evaluations of smaller pilots, which are then seen as being limited in their generalizability to larger scale initiatives and to other communities (Ferris and Hopkins, 2015).

Integration of formal mental health service delivery systems with community infrastructure can be an important strategy for improving mental health service access and outcomes. Local and community specific models for specialty mental health services that focus on reducing barriers to care and providing peer support are a promising approach to expanding community mental health infrastructure (Glisson et al., 2010; Settapani et al., 2019; Colwell et al., 2012). For example, the ARC (Availability, Responsiveness, and Continuity) model was used to address lack of coordination between service sectors and youth access to services in 14 rural Appalachian communities with the goal of increasing uptake of Multisystemic Therapy (MST), an evidence-based practice. Youth receiving MST in ARC counties had significantly lower problem behavior scores than those receiving MST in non-ARC counties (Glisson et al., 2010), demonstrating the potential of county-level systemic interventions to improve delivery of evidence-based mental health services. A study of ARC implementation in a midwestern city found that alignment of organizational priorities with the ARC intervention was the mechanism that resulted in improved youth outcomes within ARC agencies (Glisson et al., 2016).

Topic 4: Below, please provide information regarding promising multi-level interventions or programs that combine strategies to address SDOH at the individual, interpersonal/organizational, community, and/or societal levels of influence to promote mental wellness, reduce psychological distress, and prevent the development of mental health problems in HD populations.

Given space limitations, we are focusing on data and measurement issues in our response to this question. This information is derived from a 2023 chapter written by Isaac Ahuvia and Jessica Schleider

for inclusion in a research agenda to support primary mental health care. They ask, “What Measures Can We Use to See if Our Approach is Working?”

Mental health interventions, such as psychotherapy, are traditionally targeted towards individuals. In order to measure the effectiveness of these individual-level interventions, researchers have relied on self-report methods such as symptom inventories and diagnostic interviews. However, the *primary mental health care approach* requires psychologists and other providers to think beyond the impacts of our *individual-level* interventions on *individual patients’* mental health outcomes. Rigorous measurement of mental health outcomes “at scale” (i.e., at a population-level) brings a unique set of challenges and opportunities; it is also *essential* to assessing and improving efforts to promote mental health at scale. This memo describes current best practices for measuring population mental health, as well as challenges and recommendations for how to better facilitate its measurement going forward.

Measuring Individual-Level Outcomes in Aggregate

One conceptually straightforward way to assess the mental health levels of a population is to administer self-report measures of mental health to a sample of individuals in that population. For this approach to be practical, self-report measures must be valid as well as brief, in order to minimize the burden of data collection at a large scale. A recent review ([Becker-Haimes et al., 2020](#)) provides suggestions for brief, freely available, evidence-based measures of youth mental health in the domains of overall mental health, anxiety, depression, disruptive behavior, traumatic stress, suicidality, psychosis, disordered eating, bipolar/mania, and substance use. Beyond symptom measures, data should be collected on other factors that bear on individuals’ mental health, such as help-seeking, coping behaviors, and beliefs and attitudes about mental health.

While there is no shortage of instruments that can be used to measure primary mental health, little data is systematically collected at a population level. Current exceptions to this include the National Survey on Drug Use and Health (which only collects data on depression and drug use), the State of Mental Health in America survey ([Reinert et al., 2021](#)), and the National Survey on LGBTQ Youth Mental Health ([The Trevor Project, 2022](#)). Whether by providing further support to these initiatives or by creating new surveys, psychologists must be supported in efforts to collect—and make publicly available—individual-level mental health outcomes at a large scale.

To facilitate the study of mental health at the community level, it is necessary for data to be linked to geographic indicators of a reasonably small size. When geographic indicators are too broad, this limits research. For example, if primary mental health data are only available by state, researchers cannot study the relationship between neighborhood-level factors and mental health outcomes. In order to measure primary mental health in specific communities, data should be available at the census tract level or equivalent. However, research priorities must be balanced against other considerations, e.g., respondent anonymity.

Community-Level Mental Health Outcomes

“Community-level mental health outcomes” can refer to both the aggregated symptom levels or diagnosis rates of individuals within a community (as in the nationally-administered surveys described above) and the community-wide conditions that facilitate the mental health of the individuals within them ([Remington & Booske, 2011](#)). One well-known approach for measuring the latter—the social

determinants of health—is the County Health Rankings framework ([Hood et al., 2016](#)). This physical health framework assesses variables such as characteristics of the physical environment (e.g., environmental quality), social factors (e.g., community safety), economic factors (e.g., employment), access to care (and local quality of care), and health behaviors (e.g., alcohol use, diet and exercise). A similar framework—the American Health Rankings—documents physical health outcomes by state; public health stakeholders (e.g., policymakers, public health agencies) rate these data points as highly useful ([Erwin et al., 2011](#)). Measuring the mental health of communities requires a similar approach—one that collects and makes available community-level information on the social and structural factors that bear on mental health.

Evaluating the Impacts of Primary Mental Health Policies

Public policies of all kinds can have positive and negative impacts on primary mental health outcomes, including policies not directly aimed at impacting mental health (e.g., public assistance for families, anti-trans legislation). There are different best practices for evaluating individual-level interventions (e.g., provider-delivered therapy) and macro-level interventions (e.g., county-wide initiatives to promote healthy behaviors).

Individual-Level Interventions

When individual-level interventions are deemed effective (e.g., in an RCT design), a natural next step for primary mental health may be to scale these interventions up. Scale-up is not straightforward, and we should not expect interventions that work in a controlled RCT setting to work just as well at scale. Instead, it is important to evaluate the effectiveness of intervention scale-up ([Fagan et al., 2019](#); [Koorts et al., 2021](#); [Zomahoun et al., 2019](#)). Data should be collected on factors such as stakeholder engagement, buy-in, and communities' capacity to support a scaled-up intervention, using a “systems approach” ([McGill et al., 2021](#); [Rutter et al., 2017](#)). However, current reporting practices on implementation strategies are insufficient ([Hooley et al., 2020](#)).

Macro-Level Interventions

When we aim to evaluate macro-level interventions (e.g., a county-wide initiative to promote healthy behavior), we need to use methods that allow for comparison across localities. These include the difference-in-difference framework commonly used in public health policy evaluation ([Wing et al., 2018](#)). These methods require access to large-scale (e.g., nation-wide) datasets with geographic indicators—so long as the geographic indicator is small enough to facilitate specific measurement. For example, when data is only available at a state level, it is not possible to evaluate county-level interventions within a state.

Topic 5: Below, please provide information regarding promising multi-sectoral interventions in which local service sectors (e.g., health and behavioral health, public health, housing, social services, child welfare, education, justice systems, transportation, parks and recreation, commerce) work together to address SDOH to promote mental wellness, reduce psychological distress, and prevent the development of mental health problems in HD populations.

This information is derived from a 2023 chapter being prepared as part of a research agenda for primary mental health care. Kimberly Hoagwood and Mary Acri write about the effectiveness of lay providers in delivering preventive interventions.

- Lay providers of whatever type all share a certain characteristic, namely that they have “lived experience,” or direct and personal experience with the issue, illness, or situation in which they are providing services. Lived experience is thought to foster credibility, engender trust, enhance treatment adherence, and facilitate engagement in services.
- There are very few mental health prevention programs delivered by lay providers, with a notable gap in adolescent/young adult lay provider-delivered models.
- The scientific literature is strongest for family strengthening prevention programs, health models, and for postpartum depression. Less common are programs that focus on reducing child emotional and behavioral problems and substance use.
- Most programs target the parent/caregiver through the provision of educational/informational support about parenting, child health and development, mental health and community resources, and instructional support, with an emphasis on parenting skills. Several programs provided emotional and affirmational support, akin to a friendly visitor. Less frequently, instrumental supports including childcare, a cookbook and pedometer to encourage healthy weight, mattress and pillow covers and cleaning supplies to reduce allergens that contribute to asthma were offered.
- Settings include homes, schools, hospitals and community settings. Programs were delivered primarily in person, although several programs also provided services via phone.
- Outcomes focused mainly on the child and/or parent, and include increased knowledge and skills; decreased mental health and health symptoms; engagement and attendance in health and mental health services; and family functioning.
- Findings were strongest for family strengthening prevention programs; mixed results found for health interventions and postpartum depression.

Mental health preventive interventions have a strong research history (Barrera and Sandler, 2006), particularly within the area of children’s mental health (Rishel, 2007). Given half of mental health disorders originate before the age of 14 (Colizzi et al., 2020; Kessler et al., 2005), intervening during childhood can have a significant impact upon the individual and reduce societal burdens associated with untreated mental health needs (Kieling et al., 2011; Otto et al., 2021). There are dozens of well-tested prevention programs with a long history of scientific attention across settings, including early childhood programs, schools, primary care, home visitations, and community-based services (Durlak & Wells, 1997; Greenberg et al., 2001; Han & Weiss, 2005; Olds, 2006; Spoth et al., 2008). Most of these interventions are delivered by trained professionals, such as teachers, nurses, psychologists, and social workers. Fidelity to the model and thus achieving intended outcomes is thought to depend upon delivery of the program by a highly trained and professional workforce. In recent years, influenced in part by global mental health initiatives and the concept of “task-shifting”, there has been interest in using lay providers to collaboratively deliver child mental health prevention programs (Hoagwood et al., 2010; Prinz et al. 2001; Spoth et al. 2002, 2007). This has been spurred by workforce shortages and rampant service

needs in seriously underserved communities, including low-income and low and middle-income countries.

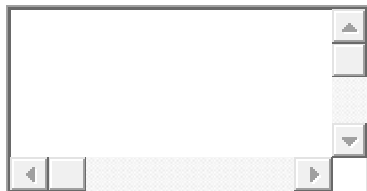
The evidence is most plentiful in three areas: (1) Family Strengthening, (2) Health Prevention and Intervention, and (3) Postpartum Depression.

Family Strengthening Prevention Programs. These programs target families at risk for adverse child health and mental health outcomes including child behavior problems, poor child development, and maltreatment. Most offer instructional support, with an emphasis on parenting skills but also including communication, coping, and problem-solving skills; educational/informational support about parenting, child health and development, mental health), and emotional support. These programs primarily focus on the parent/caregiver and are delivered in the home. Several studies used rigorous research designs, comparing the intervention with a comparison or control group. Results were favorable as a whole, with greater gains in the intervention condition regarding child outcomes (e.g., internalizing, externalizing mental health symptoms; attendance at well child care visits and completing immunizations) and more mixed results regarding aspects of child development (growth and development); caregiver/parent outcomes (e.g., mental health symptoms, parenting practices and intimate partner violence), and family-level outcomes (perceived family dysfunction).

Health Prevention and Intervention. Lay provider-delivered health programs are common, particularly for families of children with asthma, diabetes, obesity, and premature delivery and failure to thrive. Programs target the parent/caregiver heavily focus on the provision of education about the child's medical illness or health condition, child development, healthy behaviors) and emotional support, and are delivered in the home (in person or by phone). Several programs target families disadvantaged by poverty. Studies primarily consist of RCTs, and results are mixed, with several studies showing no between group differences, particularly regarding child outcomes (weight/obesity, growth as measured in weight to age, weight to height, and height to age ratios). Parent/caregiver outcomes tend to be more favorable, particularly in respect to mental health (depression, anxiety and stress).

Postpartum Depression. Programs to prevent the onset of postpartum depression typically focus on women during pregnancy or the postpartum period (prior to the child's first birthday) who are experiencing depressive symptoms but who do not have a diagnosis. These programs are often delivered by peers who have experienced and recovered from postpartum depression (along with additional criteria that varies across studies). Programs are typically brief (e.g., 12 weeks in length), and offer information about postpartum depression, infant development and wellness; and emotional support. Amani et al (2022) offered a unique program in that mothers were taught cognitive-behavioral strategies by peers to reduce depression. Results favored the intervention in two of the studies on key outcomes including depressive symptoms, and in one study gains were maintained at six months follow up. In one study, costs were calculated and found to be mainly equivalent for participants in the intervention and comparison groups. The third study found improvements in parental depression, perceived social support, and maternal/infant interactions in comparison to the control group, which the authors suggest provides evidence against lay provider-delivered home interventions to reduce PPD (Letourneau et al., 2011).

Topic 6: Below, please provide information regarding novel ways to incorporate new or existing tools and technologies into intervention approaches, as well as technological gaps and tools that are currently lacking, to address SDOH that can promote mental wellness, prevent psychological distress, and prevent the development of mental health problems in HD populations.



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The following information is derived from a chapter being prepared as part of a research agenda to support primary mental health care. Riley McDanal and Jessica Schleider write about technological interventions, including single-touch interventions, that can broaden access to mental health care.

- The traditional long-term, face-to-face healthcare system comes with several financial, temporal, and geographical access problems.
- Access barriers are often exacerbated for individuals with marginalized identities, who also face unique access barriers (e.g., cultural stigma; provider discrimination).
- Novel delivery approaches (e.g., brief, digital, self-guided, and/or automated) can mitigate many traditional barriers, increasing access to needed support.
- Many of these approaches have already demonstrated positive effects on difficulties such as depression, anxiety, harmful substance use, and post-traumatic stress.

Mental health interventions, while often efficacious, have an access problem. Many structural barriers impede the ability of individuals to obtain therapeutic services (e.g., time commitment, cost, limited provider availability, and stigma against mental health difficulties and getting support; Schleider et al., 2020). Some barriers are particularly exacerbated in marginalized communities. For example, LGBTQ+ youths whose parents are unsupportive of the youth's identity may find it challenging to obtain the parental permission necessary for traditional, face-to-face therapeutic support (Andrilla et al., 2018). Relative to White individuals, Black and Hispanic individuals are less likely to have health insurance (Radley, 2021), making it more difficult for them to afford therapeutic services. These and similar problems highlight the need to increase population-level access to therapeutic support. By using novel intervention delivery methods within a *primary mental health care approach*, we can do just that.

With more than one-third of U.S. counties lacking access to a psychological provider (Andrilla et al., 2018) and with limited transportation access to the providers that are geographically available (Oluyede et al., 2020), digital and automated interventions may increase access to therapeutic support (Schleider et al., 2020). More than 90% of the U.S. population has access to the Internet (U.S. Department of Commerce, 2021). In low- and middle-income countries (LMICs), 80% of the population owns a cell phone, and almost half can access the Internet (World Bank Group, 2016). Automated interventions can often be accessed at low or no cost, mitigating the financial access barrier (MacDonell & Prinz, 2017).

Digital interventions show promise for marginalized communities. Those adapted for sexual minority youths can reduce anxiety, depression, hopelessness, substance use, and identity-specific outcomes (e.g., internalized homophobia; Hobaica et al., 2018). Those adapted to racial minority populations can reduce substance use, depression, anxiety, and traumatic symptoms (Ellis et al., 2022). Even some non-community-tailored interventions might benefit marginalized and non-marginalized youths equivalently (McDanal et al., under review).

Online Interventions. Digital intervention delivery methods take many forms, including the Internet, mobile apps, and text messaging. Online interventions yield a medium effect size, comparable to that of traditional, face-to-face interventions (Barak et al., 2008). Online interventions appear to be most useful for anxiety, panic, and post-traumatic stress; they are also useful for depression, substance use, and negative body image (Barak et al., 2008).

Online interventions that are self-guided can be completed anonymously, which helps address the problem of possible provider discrimination (MacDonell & Prinz, 2017). Online and self-directed interventions may not require parental permission, particularly benefiting youths whose caregivers are unsupportive of the youth receiving therapy (Schleider et al., 2020).

Brief online interventions help alleviate the time commitment barrier with traditional long-term therapy (Schleider et al., 2020). Online interventions delivered in as little as one 30-minute session can reduce depression, anxiety, hopelessness, restrictive eating, self-hate, and conduct problems in youths, with some of these effects remaining present at three months post-intervention (Schleider & Weisz, 2017; Schleider et al., 2020; Schleider et al., 2022).

Mobile App-Based Interventions. Mobile apps show promise as another delivery method. Mental health apps with demonstrated utility in reducing, for example, depression, anxiety, and stress, are informed by evidence-based therapeutic strategies; these techniques derive from approaches such as cognitive behavioral therapy, cognitive control and problem solving therapy, and acceptance and commitment therapy (Rathbone & Prescott, 2017).

Text Messaging-Based Interventions. For those without Internet, some interventions can be delivered through text messages (SMS). SMS interventions have led to reductions in depression and increases in quality of life (Watson et al., 2016). When combined with telephone contact, SMS interventions have also led to decreases in psychotic symptoms and in broader transdiagnostic (cross-disorder) psychopathology (Watson et al., 2016).

Machine Learning. Recently, machine learning algorithms are being used to personalize interventions to a specific user. For example, one mobile-based intervention generates predictive models of an individual's mood, cognitive states, behaviors, and environmental/social contexts. In a study on this intervention involving eight participants, anxiety and depressive symptoms decreased from pre- to post-intervention. However, the predictive models did not actually lead to modifications of the intervention, but rather were used to display personalized feedback graphs for participant self-reflection (Burns et al., 2011).

In contrast, one study used machine learning models to tailor the actual content of daily smoking-cessation-targeted emails sent to each individual participant; the model incorporated explicit participant ratings of the messages, website visits after viewing messages, demographic information, and smoking-

related perspectives. In a comparison between this machine learning-based delivery system and a standardized system based on a smoker's readiness to quit, a greater proportion of participants in the machine learning-based delivery system condition reported an intent to quit, and the increase in the proportion of participants who reported already quitting was also greater; however, these results were not statistically significant. With only 89 participants completing the study, a trial with a greater sample size may help clarify whether the machine learning-based method has any meaningfully greater effect than a standardized computer-tailored system (Sadasivam et al., 2016).

Topic 7: Below, please provide information regarding effective strategies to implement and sustain interventions addressing SDOH that have been effective in promoting mental wellness, reducing psychological distress, and/or preventing the development of mental health problems in HD populations.

This information derives from a 2023 draft chapter prepared by Christina Johnson and Rinad Beidas to support a research agenda on primary mental health care.

Accelerating effective delivery and implementation of child mental health interventions:

- Implementation science – the study of strategies to encourage uptake of evidence-based practices (EBPs) in routine practice – holds promise for promoting the adoption, implementation, and sustainment of EBPs for child mental health across a variety of settings.
- Multi-level barriers and facilitators to child mental health EBP adoption, implementation, and sustainment have been identified at the intervention-level, individual-level (i.e., characteristics of the people involved), inner setting (i.e., organization) level, and outer setting (e.g., health system, community) level.
- Those wishing to implement an EBP for child mental health should attend to the barriers and facilitators at each of these levels that exist within the specific context in which they are implementing, and should do so using a thoughtful implementation process (i.e., from planning through sustainment).

We are not meeting the mental health needs of young people and their families in the United States (Christensen, 2023). Currently, there are historically high rates of youth mental health challenges (CDC, 2022b) – which have only risen during the COVID-19 pandemic (Leeb et al., 2020), particularly among youth from minoritized and marginalized groups such as racial and ethnic minority, low-income, female, LGBTQ+, and immigrant and migrant youth (Benton et al., 2022; Parenteau et al., 2022; Samji et al., 2022). The Centers for Disease Control and Prevention (CDC) estimates that approximately 20% of children have a mental, emotional, or behavioral disorder; however, only about 20% of these children receive treatment from a specialized mental healthcare provider (CDC, 2022a). Furthermore, children often don't improve when they receive treatment in the community (Garland et al., 2010; Garland et al., 2013). Research has found that when youth receive usual care treatment, they experience a wide variety in outcomes across studies, but effect sizes are often very small, suggesting youth receiving these treatments improve minimally (Weisz et al., 2006). Studies of youth receiving mental healthcare in

the community have found that 56-64% did not improve or got worse (Manteuffel et al., 2008; Warren et al., 2010).

These poor outcomes are evidence of a substantial research-to-practice gap in child mental health promotion and treatment: While researchers have identified myriad effective, evidence-based treatments (e.g., cognitive behavioral therapy) and population-based preventive interventions (e.g., early intervention programs in education and healthcare settings) for child and adolescent mental health (Chorpita et al., 2011; Dodge, 2022; Fagan et al., 2019; Higa-McMillan et al., 2016), translation of these evidence-based practices (EBPs) into routine practice is slow. A nationally representative survey of youth mental health providers found that on average, providers report using strategies from EBPs “sometimes” or “often,” but the most important or potent EBP strategies (e.g., activity scheduling for depression, exposure for anxiety) tended to be the least-used (Cho et al., 2019). Importantly, youth from minoritized groups are not only less likely to access mental healthcare, but are also less likely to receive EBPs and/or are more likely to experience worse outcomes than their peers from non-minoritized groups (Dodge, 2022; Hoffmann et al., 2022; Rodgers et al., 2022).

Implementation science, or “the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services and care” (Eccles & Mittman, 2006), is well poised to close the research-to-practice gap for child mental health. Importantly, scientists have been studying how best to implement EBPs for young people in community settings for over two decades, and there is a rich evidence base. This chapter reviews barriers and facilitators (i.e., factors that make it easier and harder) to implement evidence-based practices for youth mental health, summarizes effective strategies that have been identified to date, and provides recommendations for future research.

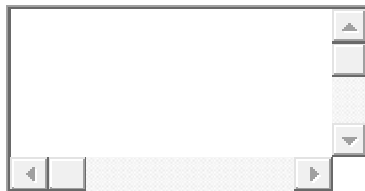
Many of our ‘validated’ EBPs were not designed with the target population and/or setting in mind, and may not be appropriate or effective for specific target populations. Thus, additional research is needed to test new or adapted EBPs for new settings or end-users. To promote expedient translation of research findings into practice – to get effective interventions to those who need them – researchers can leverage study designs that include both effectiveness outcomes (i.e., impact on participant outcomes) and implementation outcomes (i.e., degree of adoption of the EBP, factors that facilitate or impede implementation) (Beidas et al., 2023). We recommend that funders prioritize projects that utilize these hybrid effectiveness-implementation study designs (Beidas et al., 2023; Curran et al., 2012; Curran et al., 2022) to evaluate new and adapted EBPs for child mental health.

Once effective EBPs – and factors impacting their implementation success – are identified, strategies should be developed to promote wide-scale implementation in the target setting. The field of implementation science has identified and tested several frameworks that can be used to identify and design implementation strategies to address multi-level contextual factors; these frameworks hold promise for improving implementation and clinical outcomes in the child mental health arena, although further research on their use is needed (Powell et al., 2017). Additionally, insights from behavioral economics – such as the EAST Framework (i.e., making the intervention Easy, Attractive, Social, and Timely; Service et al., 2015), financial incentives, and creating defaults – hold promise for facilitating child mental health EBP implementation, although further research regarding the effectiveness of behaviorally informed implementation strategies in community mental health settings is also needed

(Beidas et al., 2021). To equitably promote child mental health and wellbeing, future research and research funding should focus on applying and evaluating these promising strategies.

Topic 8: Below, please provide information regarding opportunities for local, state, or tribal governmental or service provider organizations to conduct prospective evaluations of local policies (e.g., through a randomized study or prospective quasi-experimental design) designed to prevent mental health problems in populations that experience health disparities.

Topic 9: Below, please provide information regarding strategies for involving the intended recipients or users of mental health preventive interventions with HD populations (e.g., Black/African American youth, Hispanic/Latino veterans, persons with disabilities residing in rural areas, SGM persons experiencing housing instability, etc.) in intervention development, delivery, and evaluation.



This information derives from a 2023 chapter written by Ashanti Brown and Isha Metzger to support the development of a research agenda on primary mental health care. The authors' focus is on **culturally-informed approaches that address underrepresented populations and reflect community values.**

- Mental health disparities are persistent across culturally diverse and underserved groups. Continued movement toward cultural responsiveness in mental health treatment is critical and urgently needed.
- it is imperative to understand various cultures' historical and current systemic inequities that impact those individually, collectively, structurally and multigenerationally.
- Advancing research for diverse and underrepresented perspectives show the promising impact of culturally-informed mental health interventions. Psychologists should utilize and restructure their approaches to members of underrepresented groups accessing or eager to access care.
- Current mental health treatments and interventions should be extended to be more reflective and accessible of target populations.
- Current treatments should also place an emphasis on the dissemination of evidence-based strategies to the lay public through public health messaging and awareness campaigns.

Psychological theory and mental health practices have emerged and centered around Western ideologies, understanding and traditions of the human mind for centuries. However, this “one-size fits all” approach fails to address the constantly evolving needs of historically marginalized and underserved, specifically youth clients. This summary serves to highlight key considerations when providing adequate youth mental health care, as well as the challenges and opportunities for mental health providers to work effectively across cultures.

A simple conceptualization of culturally-informed approaches is the inclusion of techniques that are responsive to the unique characteristics of various communities and individuals. Culturally-specific modes of therapy have a range of implications that are structured to address inequities in assessment and standard clinical practice. It is also important to acknowledge cultural differences in response to one’s therapeutic needs. An individual’s culture could inform how they seek treatment, their perception of treatment (stigma), the client-clinician relationship, and linguistic barriers (Gopalkrishnan, 2018). Racism and discrimination also have a large impact on culturally diverse groups. Despite growing evidence of challenges faced by disadvantaged populations, including members of racial and ethnic minoritized groups, culturally-responsive frameworks of therapy have been slow to emerge due to pushback, limited research and funding. Additionally, although emerging, literature surrounding culturally-responsive youth mental health care remains under-studied.

Historically marginalized youth remain less likely to utilize and benefit from mental health services (Guo et.al, 2014; La Roche, 2008; Maura & de Mamani, 2017). There is significant evidence that shows culturally diverse communities are more likely to resort to communal avenues (i.e. community leaders, traditional healers, community organizations) other than mental health professionals when dealing with mental distress (USDHHS, 2001). In order to facilitate access to quality, culturally-adaptive services, it is necessary to leverage community leaders, organizations, values and research approaches.

Providing culturally-informed care is challenging; it is essential to collaborate with community organizations dedicated to servicing structurally minoritized and marginalized populations to develop practice-based evidence. Community-based services are integral resources to understanding individual and communities’ strengths, values, histories, family structures, systemic inequities, differences within cultures, and mistrust. For this approach to be practical and sustainable, research funding should be dedicated to underrepresented mental health services through partnerships and community-based health systems (Gopalkrishnan, 2018). This also brings attention to resource allocation for community-based participatory research (CBPR), in which community leaders and members would be involved in all parts of the collaborative research. Community-researcher partnerships would allow for sustained intervention and support for solutions to address mental health disparities (Rasmus, 2019).

Research has provided minimal guidance on improving the cultural responsiveness of evidence-based family therapy. Utilization of evidence-based treatments call for effective interventions that address underrepresented youth. For example, cognitive behavioral therapy (CBT) approaches have largely ignored the cultural needs and values of youth with intersecting identities (race, ethnicity, gender, SES, immigration status, education) (Sanchez et al., 2022). With this, another important aspect of culturally-responsive care is the inclusion of familial and social support networks within family-based

CBT. Flexible family-based CBT approaches would allow cultural minority youth to benefit from and engage in mental health services. This is relevant given that specific cultural factors, such as supportive community and familial networks can serve as individual protective factors (DeGarmo et al., 2006).

While TF-CBT has over 15 years of supporting evidence , funding is needed to support the testing of adaptation to such treatment. For example, racial socialization (RS) strategies for African American youth experiencing race-related trauma have shown promising results to mitigate the effects of trauma exposure (Metzger et al., 2021; Phipps and Thorne, 2019) yet, no current cultural modifications, such as RS, have been integrated within the TF-CBT framework (Metzger et al., 2021). The EMBRACE Program is an example intervention that seeks to mitigate racial stress and trauma through educating Black families on racial socialization practices, stress management and bonding (Anderson et al., 2019). This draws attention for preliminary, well-supported cultural treatment to be integrated within existing, established treatments. While the EMBRACE program is culturally-adaptive and has some preliminary evidence, more funding is needed to support the testing of its adaptation. Feasibility and acceptability of adaptations into existing treatments is needed.

Programs Ready to Scale

- TF-CBT has 15 years of supporting evidence. Funding is needed to support testing of cultural adaptation of TF-CBT.
- EMBRACE (Anderson) program- integrates racial socialization (RS) strategies into family & youth trauma treatment.
- Strong African American Families Program (Brody)- gold standard culturally-relevant, preventive intervention for Black youth and families.

Gaps in the Literature

- There are culturally-adaptive programs that are promising for underrepresented populations yet, few studies have rigorously tested these programs.
- Existing suggestions and promising programs are on the horizon however, such programs are still at the testing stage.

You may use the box below to enter any additional information not addressed above regarding innovative approaches to prevent mental health problems and promote mental wellness in populations that experience health disparities.

On behalf of APA I appreciate the opportunity to share psychological science that may inform the development of research programs to advance primary and secondary prevention of mental disorders. We are happy to supply a bibliography of references contained in this response if it would serve as a resource for your efforts. If you require any further assistance, please feel free to contact Pat Kobor (pkobor@apa.org).

We have primarily discussed intervention and implementation research in these comments, but I want to acknowledge how much that science owes to basic research with non-human animals. Much of what we know about the neural and molecular mechanisms that subserve mental disorders that are exacerbated by social disparities, stress, violence and neglect—particularly those experienced in early life—comes from preclinical research. Research funded by NIH has enabled the identification and characterization of unique features of early life learning and neurobehavioral features that enhance survival at each critical stage of development, into the transition to independence. This work has uncovered links between the effects of maternal neglect, maltreatment, loneliness/isolation, stress and even experience in NICU-like environments on social adjustment and physical development. There is much left to discover. Preclinical research should be included in any expanded initiative on social determinants of health.

I want to close with a point about training. NIH focuses its training programs on building the scientific workforce rather than the broad workforce needed to expand access to mental health services. Still, NIH could invest more deeply in programs to increase diversity in clinical science with dissertation awards, loan forgiveness and expanded institutional support for the training of science-oriented practitioners. Those practitioners are needed to conduct clinical research and implement evidence based programs. The research-to-practice gap reflects workforce gaps, and NIH expertise could be very helpful there.

Please state your name. If you wish to stay anonymous, please enter "NA" or "anonymous" into the text box below. Thank you.

Mitch Prinstein, PhD, Chief Science Officer

Please state your organization or affiliation. If you wish to stay anonymous or do not have an official affiliation, please enter "NA" in the text box.

American Psychological Association