



# Introduction to Special Issue: Interventions to Modify Psychological Well-Being and Population Health

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## Abstract

Psychological ill-being is on the rise, with 1 in 5 Americans suffering from a mental disorder in any given year. Additional evidence demonstrates that psychological well-being has also decreased over time. These trends are particularly worrisome given the substantial and growing body of evidence demonstrating that psychological ill-being (e.g., depression, anxiety, anger) is associated with an elevated risk of developing chronic diseases and premature mortality, while aspects of psychological well-being (e.g., positive affect, sense of purpose and meaning, life satisfaction) are independently associated with improved physical health outcomes. An underexplored but promising approach to enhancing both psychological and physical health is through developing a set of tools that specifically target psychological well-being (often referred to as positive psychological interventions (PPIs) although many interventions developed outside the field of positive psychology also achieve these goals). Such interventions hold promise as a strategy for improving population health. However, critical knowledge gaps hold us back, and we have not yet developed a robust set of intervention strategies that can improve psychological well-being in meaningful, durable, and scalable ways that would also have downstream effects on physical health. The goal of this special issue is to help address these knowledge gaps by bringing together current conceptual frameworks, critical examination of key constructs, and novel empirical evidence needed to identify and examine interventions that can modify psychological well-being, particularly those that have the potential to be scaled at the population level and with durable effects.

**Keywords** Psychological well-being · Emotional well-being · Interventions · Population health

Trends over the last decade show psychological ill-being is on the rise whereby 1 in 5 Americans suffer from a mental disorder in a given year and more than half of Americans will suffer from one in their lifetime (Kessler et al., 2005; *Mental Illness*, n.d.); these rates have further increased during the COVID-19 pandemic, with rising problems particularly evident among youth (Santomauro et al., 2021). Recent work has proposed placing well-being at the center of efforts to improve

population health and argued that efforts to improve mental health must expand the focus beyond deficits and problems, to consider the full continuum of functioning, including psychological well-being and optimal functioning (Kubzansky, 2020). Looking beyond those with manifest disorders, psychological well-being levels have also declined at the population level (Muennig et al., 2018). Such findings are especially concerning given the substantial body of evidence now demonstrating the “long arm” of mental health, whereby facets of psychological well-being all along the continuum from ill-being and psychopathology to well-being and optimal functioning are strongly linked with long-term physical health outcomes such as cardiovascular disease (Sumner et al., 2021). Employers, healthcare systems, school districts, and governments have begun to embrace the concept of well-being as a central goal for population health and for policy more broadly (Plough & Ahchraya, 2020) and are increasingly interested in initiatives that can improve the psychological well-being of people within their own organizations and of those they serve. However, we have not yet identified a clear set of tools that

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can improve psychological well-being in meaningful, durable, and scalable ways. Nor have we identified clear guidance for three critical questions including the following: (1) do these interventions work? (2) What works for whom? And (3) why or how do these interventions work?

To further explore the exciting possibility of psychological well-being interventions that can improve health at scale, the Lee Kum Sheung Center for Health and Happiness at the Harvard T.H. Chan School of Public Health hosted a 2-day workshop, “Interventions to Modify Psychological Well-Being: What Works, What Doesn’t Work, and an Agenda for Future Research” to bring together a cross-disciplinary set of leading scholars. The workshop included a broad-ranging discussion of what is currently known and what a research agenda going forward might be (see Future Directions paper, this issue). Following the workshop, we partnered with Affective Science on a call for papers eliciting work at the scientific forefront of the topic. With this call, we invited scholars to wrestle with key issues identified in the workshop such as the definition of psychological well-being and current problems, pitfalls, or advantages with any particular definition. In addition, we invited scholars from a range of disciplines to share their empirical research on interventions while actively considering how these may inform efforts to change the population distribution of psychological well-being.

Thus, the goal of this special issue is to begin addressing knowledge gaps by bringing together cutting-edge conceptual frameworks, critical examination of key constructs, and novel empirical evidence needed to identify and examine interventions that can modify psychological well-being, particularly those that have the potential to be scaled at the population level. The call for papers resulted in the following excellent collection of articles that we have grouped into four parts: (1) Conceptual Frameworks and Terminology; (2) “What Works?”—Evidence for Efficacy of Interventions for Psychological Well-Being; (3) For Whom Do These Interventions Work? Moderators of Intervention Effects on Psychological Well-Being; and (4) Why or How Do These Work? Mediational Pathways Through Which Interventions Influence Psychological Well-Being.

## Part I—Conceptual Frameworks and Terminology

In the initial call for this special issue, we used the term “psychological well-being” defined as an overall positive state of one’s emotions, life satisfaction, sense of meaning and purpose, and ability to pursue self-defined goals. However, it is important to recognize that others have identified problems with the term “psychological well-being,” and in fact, in a recent call for proposals to expand research in this domain, the National Institutes of Health (NIH) used the term “emotional well-being” (see <https://www.nccih.nih.gov/grants/concepts/>

[consider/emotional-wellbeing-high-priority-research-networks](#)) (National Institutes of Health (NIH), 2018; VanderWeele et al., 2020). Both terminology and conceptual frameworks in this domain have been a topic of active debate among scholars, and there is limited consensus on which terms to use, how they should be defined, and what the boundaries of any given concept may be. The articles in this special issue conceptualize and operationalize psychological well-being differently, highlighting a basic need for the field to grapple with the issues of defining the construct we aim to improve.

To bring these critical matters to light, we invited scholars in the recently launched Emotional Well-Being Networks funded by NIH, to share current thinking about conceptual frameworks needed to evaluate both the antecedents and consequences of psychological facets of well-being, and then invited a broad range of external scholars to provide commentary and discussion of the issues raised in the target article. In their article “Emotional well-being: What it is and why it matters” Park et al. (2023) get to the heart of the matter, use the term “emotional well-being” and describe a conceptualization for this construct. They raise important questions and provide a rationale for why a consistent definition of emotional well-being is needed. Especially noteworthy is the Future Directions section of the paper that lays out the vigorous discussion in the field over the various aspects of emotional well-being, and what should or should not be included in the conceptual definition. Eight commentaries provide further nuanced discussion including whether a new term is needed and, if so, whether “emotional well-being” is the appropriate one to use; arguments for broadening the concept to include more social and cognitive aspects of well-being; and calls for more nuance within, and on the boundaries of, the concept (Campos & Sanchez Hernandez, 2023; Lucas & Oishi, 2023; Necka et al., 2023; Ryff, 2023; Shiota, 2023; Sin & Ong, 2023; VanderWeele & Lomas, 2023; Willroth, 2023). Taken together, the target article, commentaries, and response to the commentaries provide fertile ground for further discussion, debate, and growth in the field (Park et al., 2023). By placing this set of articles at the start of the special issue, our hope is to lay the foundation for developing, refining, or evaluating interventions to improve psychological (or emotional) well-being that also have the potential to influence health and well-being at the broader societal level.

## Part II—Interventions to Modify Psychological Well-Being

### What Works? Evidence for Efficacy of Interventions for Psychological Well-Being

Interventions that specifically target psychological well-being have sometimes been called positive psychological

interventions (PPIs); however, such interventions are not solely derived from the field of positive psychology and, in fact, take many forms. There are individual practices such as gratitude, acts of kindness, or savoring, and these activities can also be packaged and delivered together as a set of strategies in multicomponent programs. Recent meta-analyses (e.g., Carr et al., 2021; van Agteren et al., 2021) indicate these types of interventions have small, but statistically significant, effects on psychological well-being. However, there is a great deal we still do not know about “what works”—that is, what practices, in what delivery formats are likely to have large enough effects and are sufficiently sustainable to improve population health.

This section on interventions starts with an article by Huffman and colleagues (2023) that focused on the promise of such interventions among individuals coping with serious illness. They noted 6 areas where research on these interventions in patient populations has fallen short, including scant attention to primary targets of the interventions, lack of racial and ethnic diversity in study samples, and the need to design interventions for implementation and scalability. They suggest attention to these weaknesses will help researchers develop and implement interventions in medical populations that have broad effects not just for individuals but also for population health. It is notable that the weaknesses of interventions in patient populations highlighted by Huffman et al. also apply more broadly to psychological well-being interventions across the spectrum of target populations. Indeed, applied psychological research would benefit from more inclusive eligibility criteria, theory-guided selection of variables, and careful consideration of implementation issues from the early phases of program development to ensure that findings are generalizable and, once deemed effective, ready for broader dissemination for maximal impact at a population level.

With respect to single-component interventions, two articles focused on the practice of gratitude and the different forms it can take, including directly sharing one’s gratitude to and with another individual, sharing one’s gratitude publicly, writing a private list of things for which one is grateful, or writing a longer narrative letter describing why one feels gratitude. To date, we have limited understanding of whether expressing gratitude in these different forms similarly affects psychological well-being or if the intervention’s potency depends on the way gratitude is expressed. Regan, Margolis, et al. (2023), Regan, Walsh, et al. (2023) compared effects across two dimensions of self-directed gratitude activities, type (social versus non-social) and form (a letter or list), in a large community-based sample of adults. Findings suggest writing long-form letters that were social in nature (i.e., expressed gratitude to other people versus for particular things or

circumstances) provides the strongest effects on psychological well-being. Of particular interest in this study was the use of both a rigorous experimental design and a large sample of adults ranging broadly in age. This is notable given many intervention studies to date are conducted in student populations. Also, this study identified potential harms associated with inducing gratitude, an important point to consider as work in this area moves forward.

Walsh and colleagues (2023) sought to determine if effects differ depending on the social dynamics of how gratitude is expressed. Using an experimental design, they examined if an easily scalable digital gratitude activity positively impacts psychological well-being, and also, they evaluated if effects might be stronger when individuals express their gratitude privately (e.g., write a letter but do not share it with anyone), share gratitude with a benefactor via text in a one-on-one interaction, or share gratitude with a benefactor in a public form via social media as compared with a control group. Findings suggest any expression of gratitude via a digital medium is associated with increased psychological well-being relative to controls, and expressions of gratitude expressed to benefactors in a one-to-one interaction have the strongest effects on other important outcomes including feeling socially connected and supported. This work was conducted with a student sample that was relatively diverse, but it will be important to assess these issues in other populations, particularly given that social media and digital use patterns vary widely across age groups. Both articles acknowledge that additional work will be needed to assess the duration of intervention needed for optimal effects as well as the durability of effects; while each study included post-intervention follow-ups, they also note that longer follow-ups may provide important additional insight. Overall, this pair of gratitude articles provide a significantly more detailed understanding of which forms of gratitude expression produce the most substantial and durable changes in psychological well-being.

Mounting research shows that prosocial behavior results in higher psychological well-being. However, no experiments have compared the unique feelings elicited by prosocial behavior compared to several alternative positive activities. Regan, Margolis, et al. (2023), Regan, Walsh, et al. (2023) set out to evaluate this question by randomly assigning adults to engage in one of four positive, socially desirable activities (i.e., prosocial behavior, kind acts for oneself, extraverted behavior, open-minded behavior), over the course of 15 days and measured various emotions using momentary assessments. Compared to all other conditions, participants engaging in prosocial behavior reported greater competence, self-confidence, and meaning. In addition to benefitting their communities, growing evidence suggests that volunteers reap psychological well-being, lifestyle behavior, and even physical health benefits from their

volunteering activities (Burr et al., 2021; Kim et al., 2020). Thus, physicians and policymakers are even considering “prescribing” volunteering to their willing and able patients as a way of simultaneously enhancing people’s health and well-being and societal health (Carr et al., 2015; Greenfield, 2018; Post, 2017). The findings from this study will help provide direction for future work that targets prosocial behavior.

While prior work demonstrates the efficacy of specific interventions across a number of well-being outcomes in lab-based studies, whether such interventions can buffer effects of life stress and improve psychological well-being in the face of challenging circumstances is less clear. We include two studies of multi-component interventions, delivered in the context of the COVID-19 pandemic, a contextual factor that caused substantial stress for individuals around the world. DuPont and colleagues (2023) tested the hypothesis that an online intervention that allowed participants to choose which strategies they wanted to practice from a set of 6 (signature strengths, three good things, acts of kindness, best future self, writing and delivering a gratitude letter, and savoring with mindful photography) would lead to improved psychological well-being. Using a randomized controlled design, the researchers asked participants (250 college students) to practice the strategies every other day for 2 weeks during the first year of the COVID-19 pandemic (September to November, 2020) and compared well-being outcomes to those in an active control condition. Outcomes included positive emotion, psychological well-being, optimism, loneliness, social support, and perceived stress. Findings did not provide support for the hypotheses; no differences were evident between the intervention and control groups on psychological well-being outcomes. The investigators consider several possible explanations for the lack of a significant intervention effect, including the unique challenges of administering an intervention during a global pandemic, comparatively short duration of the intervention, and other issues related to the mode of delivery. Of note, the study was powered to detect a small-to-moderate effect, suggesting that the null findings are truly informative and can help future work more clearly pinpoint which parameters contribute to making such interventions beneficial.

Similarly, Addington and colleagues (2023) presented results from a single arm (non-randomized) 6-week self-guided online intervention conducted during COVID (May 2020 to August 2021) in 616 participants recruited from the general population. In this multi-component intervention, participants learned a set of 8 skills previously shown to increase psychological well-being (noticing positive events, savoring, gratitude, mindfulness, positive reappraisal, personal strengths, attainable goals, and self-compassion) and were then asked to practice the skills daily throughout the 6-week program. Although engagement and retention were

low (30% of the sample never accessed the intervention; 42% were retained at the post-assessment), as a whole, participants improved significantly—reporting lower levels of anxiety, depression, and social isolation, as well as higher positive affect, and meaning and purpose. The authors also carefully considered predictors of engagement and efficacy and found older participants were more likely to engage with the intervention while participants of color, and those with higher anxiety were more likely to complete all intervention sessions. Although retention and usage rates were similar to those reported with pre-pandemic online interventions, findings regarding predictors of engagement differed from prior research. Taken together, these studies provide more information about the potential of such interventions to improve psychological well-being and further underscore the importance of continuing to adapt our research practices to be more inclusive and accessible to a broader range of individuals.

### **For Whom Do These Interventions Work? Moderators of Intervention Effects on Psychological Well-Being**

We include three papers in this special issue that evaluated moderators, that is, what baseline characteristics or factors influence the efficacy of an intervention? Understanding the potentially heterogeneous effects of such interventions on outcomes (such as psychological well-being or physical health) by key psychosocial or structural factors can help identify the subgroups where any given intervention might be more or less effective. However, limited work has considered moderators of intervention effects in this domain.

Epidemiologic studies, qualitative studies, and some preliminary intervention studies suggest that various forms of arts engagement can enhance dimensions of psychological well-being. However, little research has tested whether arts engagement is associated with flourishing in young people and, furthermore, whether there are socioeconomic factors that moderate any beneficial effects. Bone and colleagues (2023) set out to evaluate these questions in adults aged 18–28. They observed increases in arts engagement were associated with subsequent increases in flourishing before and after adjusting for time-varying confounders. Furthermore, in adequately powered analyses, they found no evidence that participant or parent education or family income moderated the association between arts engagement and flourishing. In this study, arts engagement was broadly defined and included any activities that participants perceived as artistic, musical, or theatrical. Future research should examine if certain types of arts engagement have particularly beneficial effects for specific domains of psychological well-being. Additionally, future research should also evaluate other forms of arts engagement that were not

captured in this study (e.g., film, dance, poetry, and literature). These findings suggest such interventions may work across diverse populations and bode well for future larger-scale arts interventions aimed at enhancing well-being across socioeconomic strata.

In the second paper considering Moderators, Anderson and colleagues (2023) delved into the role of religion and spirituality—both individual beliefs as well as the framing of the intervention—as moderators of the effect of a brief mindfulness-based intervention (MBI) on momentary emotional well-being. Participants across two different samples—undergraduates and an mTurk sample—filled out measures of existential quest (openness to change in religious and existential outlooks) and scriptural literalism and were asked to frame brief online MBIs as secular, Buddhist, or spiritual. Results indicated that how the intervention is framed and an individual's religiosity and spirituality impact affective outcomes of MBIs, underscoring the importance of both as potential moderators of intervention effects. Given the spiritual basis of mindfulness, religion and spirituality are particularly relevant moderators for MBIs, and researchers looking at determinants of efficacy of interventions that target psychological well-being more broadly might consider constructs such as mindset (Crum et al., 2013), variables such as prioritizing positivity (Catalino et al., 2014), and optimism (Carver & Scheier, 2014) as particularly likely candidates for dispositional moderators.

As indicated by findings from the study by Addington et al., described above, exploration of potential moderators of adherence and retention can provide important insights into the generalizability of an intervention. In the third paper in the Moderators section, Cummings et al. (2022) demonstrated how psychosocial and demographic factors predicted engagement with and adherence to an intervention seeking to improve psychological well-being among pregnant women. The study's goal was to refine the delivery and evaluation of interventions and help develop just-in-time delivery of additional intervention content; to this end, the researchers examined data from Wellness-for-Two (W-4–2), a randomized controlled trial evaluating stress-related alterations during pregnancy and their effect on infant neurodevelopmental trajectories. They found higher baseline negative affect predicted lower adherence to both ecological momentary assessment of emotion and physiologic stress sensor protocols. Results also suggested that women with higher annual household incomes were more likely to engage with more of the intervention content. As noted by Huffman et al. (this issue), together with the recognition that tests of interventions targeting psychological well-being tend to rely on mostly white, well-educated, and higher-income samples (Duan et al., 2022), these results suggest sociodemographic moderators of engagement and adherence may also constrain generalizability of findings

and must be considered when evaluating the potential scalability of an intervention.

### **Why or How Do These Interventions Work? Mediation Pathways Through Which Interventions Influence Psychological Well-Being**

As many have argued, effects of behavioral interventions are often small, widely variable, and of unknown durability (Fjeldsoe et al., 2011; Spring et al., 2015). One path for improving the effectiveness of interventions is to develop greater insight into the mechanisms of action by which interventions drive change (Carey et al., 2019; Kwasnicka et al., 2016). Identifying these mediators can be challenging, particularly in the context of complex or multi-stage interventions.

Two articles in this special issue directly addressed questions of mediation. First, Wong (2023) presented the catalyst model of change to guide empirical studies of gratitude interventions. The model identifies 5 socially oriented pathways (or mediators) through which gratitude interventions may impact longer-term psychological well-being: (a) social support-seeking behaviors, (b) prosocial behaviors, (c) relationship initiation and enhancement behaviors, (d) participation in mastery-oriented social activities, and (e) reduced maladaptive interpersonal behaviors. This type of work sets the stage for further identification of mechanistic pathways that can be targeted to enhance existing gratitude interventions in creative and scalable ways. Moreover, the proposed mediational pathways expand the possibilities for detecting more proximal effects of gratitude interventions and provide an important roadmap for how we might evaluate such interventions in the future.

Based on theoretical models suggesting positive emotion is a key mediator through which interventions impact subsequent depression (Moskowitz et al., 2019), Moskowitz and colleagues (2023) conducted a randomized trial to evaluate affective pathways by which an online self-guided intervention might lead to lower depression. Participants with high depression levels were recruited, and several operationalizations of positive and negative emotions (past day, past week, reactivity, and flexibility) were assessed as potential mechanisms to explain the effect of the intervention. While the intervention succeeded in reducing depression and lower levels of daily negative emotion played a significant mediational role, contrary to the initial hypotheses, none of the operationalizations of positive emotion explained the impact of the intervention on depression. Thus, while one mechanism of action was supported, the investigators suggested other mechanisms are likely at play and continued investigation is needed to identify these. Furthermore, characteristics of the participants (all had elevated levels of depression) and of the control condition (daily emotion reporting) likely

influenced the results and future work should take these into account when considering potential mechanisms of interventions that influence psychological well-being.

## Concluding Thoughts

The articles in this special issue showcase rigorous empirical research, careful interpretation of the findings accompanied by an articulate discussion of the strengths and limitations of the studies, and discussion of major conceptual and theoretical issues with which we must grapple if we are to identify durable and scalable interventions with meaningful effect sizes. In the final article of this special issue, Kubzansky and colleagues (2023) focused on future directions for the field through the key insights from the workshop that catalyzed this special issue (“Interventions to Modify Psychological Well-Being: What Works, What Doesn’t Work, and an Agenda for Future Research”). Major themes emerging from the workshop included the importance of (1) determining the size of effect that interventions must achieve to produce changes in psychological functioning that are sufficiently meaningful to lead to downstream improvements in psychological functioning and health; (2) determining if existing interventions can be adapted to produce not only meaningful but also durable effects; (3) considering scalability—which requires shifting from an exclusively biomedical model of individual care and treatment to a public-health model of prevention, and the articulation of infrastructure that will be required to disseminate and implement interventions at sufficient scale to improve population health; and (4) developing and tailoring interventions that are broadly accessible and effective in racially, ethnically, and geographically diverse samples.

A challenge for research on interventions to modify psychological well-being is that the interest of the lay public and practitioners for this topic runs far ahead of what the scientific community considers actionable knowledge. Thus, there is pressure from the public to provide tools and strategies immediately, regardless of whether they have been fully tested and vetted. In the arc of taking knowledge from basic science to public health action (Epstein et al., 2021), at what point should scientific findings be considered sufficiently well-established that we are comfortable in “prescribing” or recommending them for the general public? On the one hand, given much research is funded by the public, they have a right to know about promising or exciting (or disappointing) findings. On the other hand, if individuals adopt strategies or treatments that are not fully tested or understood and then find that promises for change and improvement are not met, this may ultimately do a disservice to both science and the public’s health; people may then become ever more skeptical of “evidence-based” recommendations (e.g., recent experience with COVID-19 vaccines) (Tram et al., 2022). Also,

significant evidence suggests a narrow focus on the pursuit of psychological well-being can be detrimental (Ford & Mauss, 2014; Gruber et al., 2011); thus, scientists have a responsibility to carefully delineate both what is known and unknown, to make thoughtful recommendations for action, and to resist efforts to implement activities that do not have sufficient evidence or understanding behind them. In addition, scientists must build their understanding on the most rigorous research possible, considering not only positive findings but also null findings and those that do not conform to initial hypotheses. In this way, science will be most effectively translated.

The collection of articles in this special issue represents an important step toward our initial goal of understanding which interventions improve well-being in meaningful, durable, and scalable ways. Taken together, the articles provide evidence for the effectiveness of specific interventions and suggest possible moderators and mediational pathways. However, the collection of articles here is by no means comprehensive regarding the range of interventions that might modify psychological well-being. For example, interventions involving mindfulness-based stress reduction, yoga, “wise” interventions (i.e., interventions that take account of how socio-cultural contexts prompt specific psychological questions and then alter subjective meaning-making in ways that help individuals achieve their goals and flourish) (Hendriks et al., 2017; Querstret et al., 2020; Walton & Wilson, 2018), and more integrative approaches are less well-represented in this issue, perhaps because many of these are not often considered through the lens of affective science, despite their clear relevance.

Whereas many interventions have promise for improving psychological well-being at an individual level, we also need interventions that target social-structural determinants of well-being. The majority of interventions examined in the empirical studies in this collection focused on individual-level action (e.g., expressions of gratitude, acts of kindness), with only one study considering an intervention that could clearly be administered at a population level (e.g., Fancourt and colleagues on arts engagement). That said, it is likely that at least some interventions currently viewed as sitting primarily at the individual level (e.g., gratitude) could also be administered in other ways, targeting communities or organizations for example. Though these types of interventions or ways of administering them are less well-studied, they provide important additional directions for research seeking ways to increase population levels of psychological well-being. Examples of such possibilities include embedding more arts within community organizations, training more gratitude practices in schools, or increasing opportunities for interactions with nature and green space. Interventions that specifically target well-being at the population level can be implemented through policy changes as well (e.g., social safety nets, social prescribing, cash transfers) (McGuire et al., 2022; Walton &

Wilson, 2018). More generally, the field should seek to establish a set of recommended strategies and activities rather than assuming one-size-fits all, similar to the field of nutrition which has clearly suggested that multiple different diets can be equally health-promoting (Shan et al., 2020).

As alluded to above, one challenge with work in this area is that these different types of interventions and the research required to develop, test, and evaluate them do not all reside within a single discipline; thus, lessons learned from one set of studies do not always cross disciplinary boundaries to inform other work, despite the many elements such interventions and efforts to develop and administer them may share. As biomedicine, public health, and the lay community come to appreciate the value of identifying factors and strategies that promote psychological well-being beyond simply marking the absence of ill-being, there is greater attention to and investment in this endeavor. This increased recognition is reflected in major initiatives supported by the NIH such as the establishment of multiple networks to advance research on emotional well-being, the greater likelihood of mainstream high-impact journals publishing work in this area (Kubzansky et al., 2018), and a greater focus by economists and policymakers on centering well-being in national policy (The Global Council for Happiness and Wellbeing, 2019). We hope there will be more interdisciplinary convenings and outlets to support this work going forward and look forward to contributing to building a pipeline that builds knowledge and ultimately translates that knowledge into actionable recommendations to improve population levels of psychological well-being.

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