

Chapter 6

Well-Being Interventions to Improve Societies

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Our gratitude is expressed to our excellent assistant, Nadezhda Lyubchik, as well as to the committee members who offered valuable advice that helped us revise and improve the chapter: (Lesley Lutes, Canada; Peter LeViness, USA; Meik Wiking, Denmark; Eric Kim, USA; and Dan Buettner, USA).



Abstract

In recent decades evidence has accumulated showing that high well-being, or “happiness,” has beneficial outcomes. Happier people – those with high psychological and social well-being – enjoy better physical health, have better relationships, and are better citizens. At work, happy people are somewhat more productive, and are more likely to help co-workers. Based on these research results, we argue that happiness is an essential policy concern. This chapter focuses on interventions aimed at improving the well-being of individuals. We begin by describing well-being interventions and the mechanisms by which they work. Some, for instance, target changes in thinking while others focus on improved social connection. We use a case study to illustrate the ways in which multiple interventions can be bundled together and delivered digitally or in person. The second half of the chapter includes a practical guide to implementing well-being interventions. We discuss the importance of measurement, attention to cultural norms, the inclusion of didactic education, and opportunities to learn specific behavioral skills. This section concludes with a case study illustrating how stakeholders were able to improve well-being over a 5-year period. The final section of the chapter discusses how to attract participation to well-being programs, and how to insure completion of them. We also include an appendix with links to further resources.

Introduction

Around the world people rate being happy as “extraordinarily important” (Diener & Oishi, 2000). Happiness serves as a major motive for important decisions regarding education, travel, recreation, professional development, charity, and health. The individual impulse to seek a happier and more rewarding life is echoed in the role of government. Traditionally, governments at the municipal, provincial, and national levels have attended to security, economy, education, health, and the environment because these are areas that affect the well-being of the citizenry. Until recently, however, well-being was not directly emphasized as a policy goal. That has changed as governments increasingly recognize the long-term benefits of well-being. Happiness has

become a policy concern in a range of nations, including the United Kingdom, Bhutan, the UAE, and France, as well as at international organizations such as the United Nations and the OECD (Sachs, 2018; Tay, Chan, & Diener, 2014).

An emphasis on raising positive well-being – not just alleviating suffering – is an important component of well-being interventions. Recent research suggests that increasing positive emotions (as opposed to simply reducing painful moods) is a helpful approach for a wide range of maladies including:

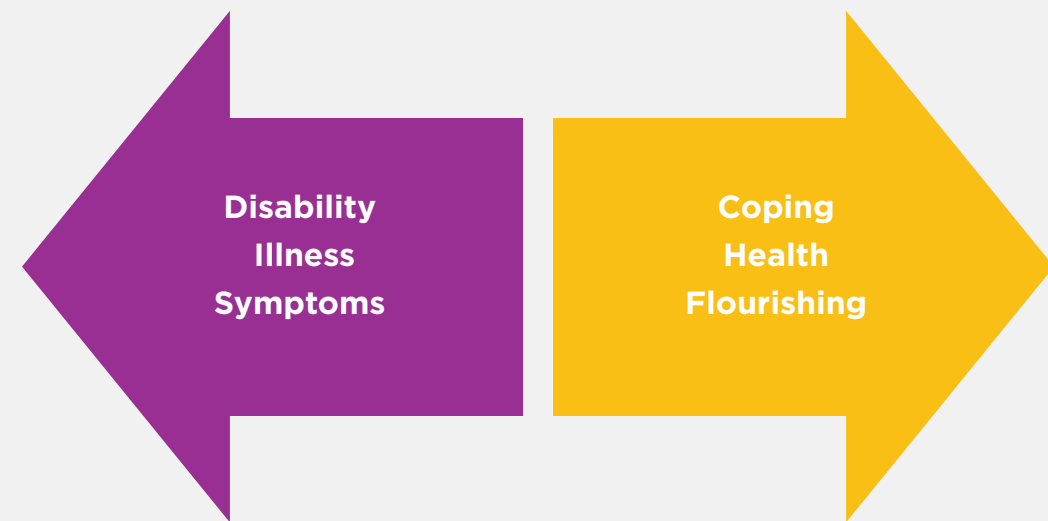
- Coping with depression (Taylor, Lyubomirsky, & Stein, 2017)
- Physical health problems such as HIV, pain, and breast cancer (Moskowitz et al., 2017; Hausmann, Parks, Youk, & Kwok, 2014).

Furthermore, people without major mental health issues can profit from well-being interventions. They can learn life skills and habits that make their lives more meaningful, enjoyable, and satisfying, as well as learning healthier habits. In addition, well-being interventions can increase their civic engagement, supportive relationships, productivity, and resilience to stress.

Well-being is an absence of ill-being of course, the absence of experiences such as depression or chronic anxiety. However, flourishing requires more – moving from the neutral middle position upward in terms of life satisfaction, enjoying life, and feeling worthy, for example. As shown in Figure 1, ~~below~~, happiness does not mean just the elimination of unhappiness, but moving upward in the blue zone. While traditional clinical psychology and psychiatry focus on removing unhappiness, the well-being interventions focus on moving people up in flourishing above the neutral point.

The new emphasis on well-being as a policy goal is, in part, due to the emergence of a science of happiness. Over the last 40 years, scientific papers on happiness have soared from a few hundred publications to hundreds of thousands of articles spanning economics, sociology, psychology and other disciplines (Diener et al., 2017). Helliwell (2018) argues that including happiness as a policy concern is now justified and fundamentally improves policy decisions. It does so by:

Figure 1. Ill-being and Well-being



- 1. Changing the methods used to evaluate and compare policies.** Using well-being as a standard for evaluation shifts away from economic cost-benefit analysis alone and toward a metric in which citizen flourishing is given greater weight. Indicators such as income equality or literacy are important, in part, to the extent they translate to citizen well-being.
- 2. Increasing cross-governmental cooperation.** Traditionally, government departments are focused on their specific mandates, such as transportation, security, or education. Well-being provides a superordinate goal around which multiple departments can marshal their efforts in concert.
- 3. Improving policy making.** A focus on well-being adds attention to the delivery and impact of policy. Not only is it possible to consider direct policy outcomes such as employment or literacy, but it is also possible to investigate how these outcomes affect the well-being of individuals, their communities, and the people administering these policies.

The word “happiness” may conjure ambivalence in many because it seems fleeting, vague, and outside the purview of policy. Nothing could be further from the truth. Happiness is widely desired, measurable, and directly relevant to policy. Happiness is now a legitimate topic for policy and good governance. We believe that the major impediment to implementing happiness interventions is no longer a bias against the topic but, instead, uncertainty about how to effectively intervene. This lack of clarity can include how best to access high quality scientific information, how to specify happiness policy and initiatives, and how to create and use effective happiness interventions. In this paper, we provide background on well-being intervention (part one) while also providing a practical guide for policy makers wishing to focus on raising well-being (part two).

What is Happiness?

Typically, people use the word “happiness” to indicate multiple experiences. Perhaps the most common use of the word is to denote emotional experiences such as joy. When considering the emotional side of happiness, it can be tough to pinpoint a single feeling that best sums up happiness. People from diverse cultures appear to emphasize different elements of happiness and have distinct beliefs about well-being (Oishi, 2018). Americans, for example, may associate happiness with excitement while, in contrast, Japanese people are more likely to associate happiness with peace and calm. Scientists who study “subjective well-being” (SWB) tackle the thorny issue of defining happiness by including a wide range of elements in its definition, including many desirable emotional states (Tov, 2018; Diener, 1984).

In addition, happiness can be used to signify an overall mental appraisal of life. For example, we might describe a person as “satisfied” with her life and this reflects a series of judgements about the quality of her life rather than an in-the-moment feeling. These judgements are distinct from feelings because they require people to weigh information such as the quality of their relationships, work, and health. It is this sense of happiness that researchers often measure and use as a social indicator (Helliwell and Wang, 2012).

The type of happiness we discuss is not narrowly what people think of as having fun or enjoying leisure. Instead, we mean something much broader – leading a thriving and flourishing life from the person’s own perspective. In other words, “happiness” is how people appraise their lives, evaluate their lives, in both thoughts and feelings. It can include enjoyment, but also feeling worthwhile and that one’s life is meaningful. It is important to differentiate “Sustainable happiness” that which tends to provide

lasting flourishing, from “having fun”, which is momentary. Although momentary happiness can be good (and occasionally destructive), long-term sustainable happiness usually comes from things such as close family and friends, engaging in meaningful activities, and engaging in activities that are greater than ones’ own self. Policy makers with an interest in measuring well-being should include a ‘local’ understanding of happiness. That is, we recommend including measures that reflect the local understanding of the good life. This will include measures such as life satisfaction and positive feelings about life, but also might include measures of joy, connectedness, and optimism.

The measures of well-being we have developed illustrate the range of different types of happiness that exist. Our Scale of Positive and Negative Emotions (SPANE) assesses a variety of feelings – moods and emotions, while the Satisfaction with Life Scale (SWLS) inventories people’s life satisfaction. Our Flourishing Scale (FS) measures general well-being, including social relationships, meaning in life, and several more concepts. The broadest measure is our Comprehensive Inventory of Thriving (CIT), that assess a broad range of types of social well-being, feelings of mastery and meaning in life, and facets of subjective well-being. All these measures can be found on the internet at: eddiener.com

Part One: Types of Interventions to Raise Happiness

Attempts to improve well-being can occur at many levels. First, at the societal level policies can target health, income, corruption, and pollution. Interventions can also occur at the more local level, such as in cities. In 2018, Diener and Biswas-Diener described this level of social policy with a focus on reducing domestic violence, reducing government corruption, and creating more tight-knit neighborhoods. In the current chapter, we focus on interventions that are directed at individuals, wherein members of target groups can learn skills and habits that will improve their well-being. Many treatments of this type are aimed at helping people with serious mental problems (see Barlow, Bullis, Comer & Ametaj, 2013; and Clark, Fleche, Layard, Powdthavee & Ward, 2018, for general reviews). In this chapter, however, we focus on interventions that are aimed primarily at people without serious mental health problems, but those who might be at risk for professional stress or who might benefit from a greater sense of meaning or life satisfaction. This might include first responders, teachers and students, government employees, non-profit workers, healthcare professionals, and other groups.

Interventions to improve individual well-being are numerous and diverse and an overview of this field is offered by Stone and Parks (2018). Emerging research also points to the effectiveness of these interventions (Bolier et al., 2013; Malouff & Schutte, 2016; Sin & Lyubomirsky, 2009; Weiss, Westerhof, & Bohlmeijer, 2016). There are a few interventions that specifically include attention to enjoyment. For example,

the Happiness Research Institute, in Denmark, conducted an intervention with 82 young people between 16 and 24 years old. The interventions used were group activities and classes that occurred outside of school hours. These included hip hop dancing, participation in role playing games, cooking, or engaging with the natural environment. Over the course of the program, 55% of the participants improved in their perceived quality of life. Of these, the average gain was 12% increase in happiness.

Well-being interventions extend beyond encouraging enjoyment; they offer a broad array of life skills and habits of thinking that can broadly affect happiness. Examples of well-being interventions include:

- Writing about emotional experiences (Pennebaker, 1997)
- Meditation (Hofmann, Grossman, & Hinton, 2011)
- Expressing gratitude (Emmons & McCullough, 2003)
- Identifying and savoring positive experiences (Friedman et al., 2017)
- Counting kindnesses (Chancellor, Margolis, Jacobs Bao & Lyubomirsky, 2018; Otake, Shimai, Tanaka-Matsumi, Otsui & Fredrickson, 2006)

Among the most important contributions of the positive psychology movement is scientific attention to happiness interventions. There are those that focus on modifying thinking and feeling directly, those that target social relationships, those that work principally through biological channels, and those that are effective by creating lists and labels that help highlight

the positive aspects of life. We briefly describe each below. We include additional details and resources in the Appendix.

Thinking Happier

There are many words of wisdom suggesting that happiness is a state of mind. These include sayings such as “happiness is a choice,” “people are about as happy as they decide to be,” and “life is what you make of it.” These reflect the common wisdom that how a person thinks about life—her mental habits of optimism, her reactions to difficulties, and her ability to remember positive events—is a major influence on well-being. Lyubomirsky (2001) and Lyubomirsky, Tucker and Kasri (2001) identified patterns of thinking that distinguish happy from unhappy people. Happy people, for instance, are less likely to dwell on negative life events, and are less affected when others fare better than they do.

Developing healthy thinking habits is at the center of one of the most established and well-researched approaches to counseling: cognitive-behavioral psychotherapy (CBT). CBT focuses on ways that people with depression, anxiety, and other disorders suffer, in part, due their habits of thinking (Beck, 1970). For example, some people jump to conclusions, blow problems out of proportion, or succumb to perfectionism. Cognitive-behavioral therapists work to replace these habits of thought with healthier thinking patterns. Layard (2018) reports that CBT is the therapy of choice for depression and anxiety, and that psychotherapy interventions have success rates of 50% or more. This is important because mental illness is a growing concern. Many people suffer from some form of mental illness at some point in their lives. Mental illness is implicated in half of all disability claims within OECD nations and is associated with an earlier death (Layard, 2018).

Given the suffering caused by mental illness, it is not surprising that researchers and practitioners have worked to improve psychotherapy. Interestingly, many of the refinements of the last few decades have involved increasing attention to the positive. For example:

- Therapies that focus on building resources and planning, rather than focusing on past problems can shorten the duration of treatment (De Jong & Kim Berg, 2008)

- Focusing on strengths reduced depressive symptoms for up to six months, and this reduction outperformed a placebo control condition (Seligman, Rashid, & Parks, 2006).
- Regular, non-religious meditation practice is associated with lower emotional exhaustion at work (Hülshleger, Alberts, Feinholdt, & Lang, 2013)
- Regular meditation is associated with lower drug and alcohol consumption by prisoners (Chiesa & Serretti, 2010)
- Mindfulness meditation is linked to mild physical improvements including better immune functioning in people with HIV (Creswell, Myers, Cole, & Irwin, 2009)

There are other treatments for problems such as depression that also use mindfulness, take stock of strengths and resources, and attend to positive events. Two such examples include Acceptance and Commitment Therapy (ACT) and Dialectical Behavioral Therapy (DBT). We want to emphasize that although these mental interventions have traditionally targeted clinical populations, healthy thinking habits and meditation are also beneficial for every day, non-clinical stress and wellness. Here, we endorse the notion that psychological intervention is simply too good to be reserved only for the mentally ill. Learning healthy thinking techniques can benefit people from all cultures and all walks of life.

Social Happiness

If there is a single “secret” to happiness, it is to be found in high quality social relationships. This finding emerges time and again in the research literature. Diener and Seligman (2002) found that the one feature that distinguished the most from the least happy people is that the former group had supportive, trusting, and rewarding social relationships. Good friends offer a buffer against negative life events and provide a sense of belonging (Gable & Bromberg, 2018). Importantly, it is not just receiving social support that is associated with well-being, but giving it as well (Siedlecki, Salthouse, Oishi, & Jeswani, 2014). Social support and trust also explain major differences in happiness between nations (Helliwell, Akinin, Shiplett, Huang, & Wang, 2018). It is plausible, then, that efforts to create high quality connections are likely to yield greater well-being.

Table 1. Focus of Well-being Interventions

Thinking	Social	Biological	Listing, Labelling, and Describing
Cognitive Behavioral Psychotherapy	Altruism	Learning Deep Relaxation Techniques	Strengths Identification
Mindfulness Training	Forgiveness & Gratitude	Exercise	Narrative Writing
Loving Kindness Meditation	Social Recreation	Sleep	Counting Kindnesses & Blessings

A number of interventions to increase happiness involve an emphasis on relating well to others:

- Spending money on other people yielded happiness dividends both for the spender and for the recipient (Aknin, et al., 2013).
- Doing small good deeds (e.g., holding the door, carrying an item) and giving small gifts (e.g. paying for parking, writing a kind card) boosted joy, optimism, and life satisfaction (Pressman, Kraft, & Cross, 2015).
- After people were prompted to help their colleagues at the office, the helpers showed increases in well-being and reductions in depressive symptoms (Chancellor et al., 2018).
- Volunteering is associated with higher well-being, and that this may especially be true in older adults (Greenfield & Marks, 2004; Morrison, Tay, Jebb, & Diener, 2018).
- People who help others, rather than indulging themselves, showed more positive emotion and flourishing, and fewer negative emotions over several weeks (Nelson, Layous, Cole, & Lyubomirsky, 2016). The authors of this study concluded with this sage advice:

“People who are striving to improve their own happiness may be tempted to treat themselves to a spa day, a shopping trip, or a sumptuous dessert. The results of the current study suggest, however, that when happiness seekers are tempted to treat themselves, they might be more successful if they opt to treat someone else instead.” (p. 859)

Physical Happiness

While attention to psychological aspects of life, such as happiness, are important there is no denying that food, shelter, safety and other physical aspects of life merit attention. Bodily well-being influences psychological well-being, and both are policy relevant. In this, we are informed, in part, by Groppe and Wiegand (2013), who described the ways that the body is relevant to business performance. In their white paper on the topic, they argue that frequent walking and healthful eating are associated with better creativity and energy across the workday.

Perhaps the most obvious physical approach to enhancing well-being is exercise. The effects of mild to intense aerobic exercise has been studied

extensively. Results from research converge on a single conclusion: exercise is beneficial not only to health, but to cognitive functioning and happiness. Ensari and colleagues (2015) found that 20-30 minutes of exercise, including cycling, resistance training, and yoga, was associated with lower rates of anxiety. Similarly, Gillison and colleagues (2009) found that healthy people reported higher quality of life when they engaged in exercise, and that this effect lasted up to a year. Kramer and his colleagues have found that physical exercise not only improves life satisfaction (e.g., McAuley et al, 2000), but also cognitive functioning, especially executive control (Kramer & Erickson, 2007; Colcombe & Kramer, 2003), which allows planning and self-control.

Listing and Labelling Interventions

There has been a recent emphasis on the so-called “quantified self.” With the advent of mobile technology people are increasingly able to track their movement, feelings, and interactions. Such measurement can be an important launchpad to change because measurement offers a baseline for goal setting, a means of tracking progress, and an understanding of when a goal is reached. Readers will be familiar with the old business adage, “You cannot change what you do not measure.” Indeed, checklists and similar measures are becoming increasingly accepted for their benefits.

The field of positive psychology often has stressed creating lists and tallies as a mechanism to promote well-being. For example, Otake, et al. (2006) found that “counting kindnesses” led to boosts in happiness. Similarly, Seligman, Steen, Park, & Peterson (2005) found that writing “three blessings” each day or identifying a list of five personal strengths promoted happiness and decreased symptoms of depression over several months. This finding was replicated and extended by Chancellor and colleagues (2015), who found that people who recounted “3 good things at work” were happy and engaged in more physical movement. Researchers are uncertain about the specific reasons that this approach boosts happiness. It may be that lists direct attention to positive events and thereby create a positive view of life, that lists create a favorable sense of identity, or that lists motivate activities likely to boost happiness.

Regardless of how listing interventions cause change, we describe them because they seem to have such high return on investment. Creating a list once a day is relatively easy in that it requires little effort, time, and materials to be successful. Potentially, people could track a wide variety of positive content such as times they offered a compliment, instances in which they faced a fear, or times they actively listened to others.

Case Study: Enhance

With our colleagues at universities in Canada and the United States, we created and tested a program called ENHANCE (Heintzelman, et al., 2018). The program is in some ways similar to well-being interventions developed and tested in the past. However, it improves and extends this earlier work by employing the features described below.

ENHANCE is a well-being intervention program that can be delivered in-person using facilitated workshops or scaled for on-line administration either on the Web or on mobile devices. In either case, the program is 11-12 weeks in duration and focuses on multiple channels for intervention:

- **Education.** Learning about the principles of happiness. This learning provides the foundation for behavioral change.
- **Goals.** Examining one’s goals in reference to one’s values, and making concrete plans to reach these goals.
- **Behavior.** Engaging in specific activities intended to apply the principles of happiness.
- **Habits.** There is an emphasis on *developing* new habits that will continue to promote well-being even after the conclusion of the program.

The Enhance program frames the pursuit of happiness as a learnable set of skills and encourages participants to develop a skills development mindset; a mindset that is critical to the success of these interventions (Lyubomirsky, Sheldon, & Schkade, 2005). This is especially true of behavior change programs that focus on making only small modifications and monitoring progress (Lutes & Steinbaugh, 2010).

ENHANCE is a comprehensive program. Intuition suggests that anyone wanting to improve her well-being would need to attend to several areas

of life, not just a single one. For this reason, ENHANCE offers 10 related but distinct thematic learning modules. These modules are further grouped by their relevance to the “core self,” the “experiential self,” and the “social self” (see [the table below](#)). The metaphor of training at the gym is instructive. You would be skeptical if a person returned to the gym day after day to build only the muscles in her forearms. Your instincts tell you that true fitness must include balance, flexibility, and cardiovascular capacity, as well as strength across the body. Just as athletes direct their attention to many aspects of fitness, so too does the ENHANCE program include many different aspects of living a happy life.

The ENHANCE Program

To give a more specific idea of the content of the Enhance modules, we describe several of the skills that participants develop during the social theme. Participants are guided to practice various social skills on a daily basis. These include:

- **Compliments.** Today, focus on noticing what others do well. Give more compliments today.
- **Gratitude.** Today, focus on noticing how others do things that are beneficial for you, both large and small. Express appreciation for these deeds.
- **Good news.** Today, focus on good news and events, and not just on bad news. When you interact with others, share good news. This could include a sports win, a personal achievement, a description of a fun event, or something positive from the news.
- **Active Listening.** Today, pay attention when others speak with you. Ignore your inner monologue and listen, instead, to what they are saying. React in a supportive manner.
- **Showing interest.** Today, make the other person (instead of yourself) the center of attention. Ask them questions about their goals, their relationships, and their activities.

Although many of these skills may appear mundane, the results of the ENHANCE program are quite positive. In one study, we were able to recruit 155 Canadians and Americans to participate in a randomized controlled trial of this program (Heintzelman, et al., 2018). Our participants ranged in age from 25 to 75 years old. We

Table 2. Overview of the ENHANCE PROGRAM

Skills and Habits Taught in ENHANCE	
The Core Self	Sample Activities Covered in these modules
Values	Exercise and adequate sleep
Goals	Strengths, intrinsic motivation, and virtues
Strengths	Creating concrete goals and plans to reach them
The Experiential Self	
Mindfulness	Savoring
Negativity	Stress reduction
Savoring	Behavioral activation
The Social Self	
Relationships	Expressing gratitude and compliments
Gratitude	Active listening
Social interactions	Being sociable
Giving	Prosocial helping activities

exposed participants either to an on-line learning condition, to a workshop condition in a classroom setting, or to a wait-list control group. We collected measures at the beginning and at the end of the program, and then again three months after the program ended. Our outcomes included measures of positive and negative emotions, pleasant and unpleasant memories, self-esteem, motivation, life satisfaction, meaning in life, and physical health.

Compared with people in the control group the ENHANCE participants showed higher life satisfaction from the beginning to the end of the program. These gains lasted through the three-month follow-up period. In addition to the psychological increases in well-being, the ENHANCE participants also showed improvements in health. For example, body mass index (BMI) was assessed across the study. Although people in the ENHANCE program had higher initial BMI scores, their average weight dropped during the program, and continued to drop thereafter. In contrast, members of the control group showed slightly increasing BMI across the months. Enhance participants also reported fewer sick days, and in another study they showed improved cognitive performance on a neuropsychiatric battery, which measured characteristics such as attention and memory.

The ENHANCE findings indicate that well-being skills can be taught. The modular aspect of

ENHANCE offers the potential to revise and re-mix content to suit local needs. This allows the program to be modified for use by healthcare agencies, mental health programs, and other policy stakeholders with a well-being mission. Additionally, we discovered that both in-person and on-line administrations are effective. This is particularly important for geographic regions whose culture or infrastructure might make easier one delivery mechanism over the other. Furthermore, electronic delivery of the programs makes it inexpensive to deliver.

Table 3. Improvements in well-being produced by ENHANCE

Improvements in Well-Being Produced by ENHANCE
Higher life satisfaction and enjoyment
Lower rates of depression and stress
Fewer sick days
Increased physical activity
Increased self-esteem
Mental improvements such as enhanced attention and memory

Part Two: A Guide to Using and Implementing Well-being Interventions

In this section, we offer a practical guide to well-being intervention. This includes 1) Increasing stakeholder buy-in, 2) Implementing successful programs, and 3) A case study to illustrate key points. It is important to note that currently there are no established “best practices” for well-being intervention. This is not to say that existing interventions are ineffective. Indeed, research suggests that they are effective in improving health and longevity (Diener, Pressman, Hunter, & Delgado-Chase, 2017; Lambert, Moliver, & Thompson, 2015), education (Seligman & Adler, 2018), and the workplace performance (Mills, Fleck, & Kozikowski, 2013; Tenney, Poole, & Diener, 2016). Rather, it is difficult—if not impossible—to point to standard practices because new interventions are rapidly being developed and also because policy is so local. Well-being interventions may have to be adapted depending on the level of government (neighborhood, municipal, state, or federal), the intended participants, and depending on factors such a religion and cultural norms for expressing emotions. Comprehensive programs such as ENHANCE can serve as the foundation for interventions and be tailored to the needs and culture in that place.

Benefits of Well-Being Interventions Beyond Happiness

The first task in creating a well-being policy or program is creating a compelling reason for intervening. An initial, and often convincing, point to make is that well-being has many downstream outcomes that everyone considers to be important. For example, happy people live longer, have better cardiovascular and immune functioning, and engage in better health habits than do unhappy people (Cohen, Doyle, Turner, Alper, & Skoner, 2003; Diener & Chan, 2011; Kim, Kubzansky, Soo, & Boehm, 2016). In the Table 4, we draw on four studies for each predictor that show the association of each of the health variables with greater longevity. Although gains from any factor will depend, in part, on other influences, these studies indicate that well-being can be a very important influence on health and longevity.

Happiness also appears to be associated with better work performance (DeNeve et al., 2019;

Table 4. Happiness and Longevity

	Average Years Gained	Range Across 4 Studies
Exercise	3.0	2.1 - 4.5
Not Smoking	6.8	2.3 - 11.5
Subjective Well-Being	7.6	6.0 - 9.0

Warr & Neilson, 2018). Researchers find that happy workers, on average, are more innovative, receive better performance evaluations, earn higher incomes, and show less absenteeism than un-happy workers. Furthermore, happy people have stronger and lasting social relationships and are more responsible citizens. Taken as a whole, the research on the benefits of happiness should catch the eye of policy makers because these outcomes dovetail so well with other major goals of government. We would also like to point out here that happiness is a worthwhile focus even in the absence of health, work, and other desirable outcomes. That is, happiness is a pleasant and positive state, and is desirable in itself. However, the downstream benefits of happiness make it an even higher priority target for government policies and programs.

Table 5. Benefits of Happiness

Benefits of Happiness
Higher life expectancy
Health behaviors such as wearing seat belts and exercising
Better immune system functioning
Better organizational citizenship behaviors
Better supervisor and customer ratings
Earning higher incomes
Longer and healthier marriages
Donating more money to charity and volunteering
Social activism to solve societal problems
Resilience — bouncing back more quickly from stress and adverse events

Well-being interventions likely are more effective when they are delivered in a culture that accepts them. Researchers have collected data from a wide range of international samples (Diener, Seligman, Choi, & Oishi, 2018; Diener, Diener, Choi, & Oishi, 2018; Biswas-Diener, Vittersø, & Diener, 2010) and have tested interventions on a wide range of cultural groups (Layous, Lee, Choi & Lyubomirsky, 2013; Nelson et al 2015). For example, Lambert and colleagues (Lambert, Passmore, Scull, Sabah, & Hussain, 2018) tested well-being interventions with a sample of students in Kuwait and another diverse sample living in the UAE (Lambert, Passmore, & Joshanloo, 2018). In both instances, the researchers found that simple interventions could yield gains in well-being such as lowering the experience of distressing emotions, and these changes endured over time. Notably in this case, the researchers included interventions that were not culturally problematic. For instance, in the Kuwait study one of the lessons encouraged participants to “plan a great day.” When framed in this way, the intervention allowed for local cultural understandings of what constitutes a great day.

We recommend that people interested in using standard well-being interventions, such as those in the ENHANCE program, should feel empowered to modify the activities to make them culturally appropriate. To do so, we recommend attention to cultural norms (Biswas-Diener & Lyubchik, 2013). For example, identifying and using personal strengths is a culturally universal phenomenon (Biswas-Diener, 2006) and a common positive psychology intervention (Seligman et al., 2005). Although the results from a number of studies suggest the potential benefits of strengths-based approaches, this topic can be difficult to introduce in cultures with strong norms for humility. This includes societies, such as Japan, where humility norms prevail, as well as in nations where the “tall poppy syndrome” discourages people from standing out from the group. In such places, people are often reluctant to speak openly about talents or successes because they fear being seen as arrogant. To avoid being distasteful to intervention participants we recommend positioning strengths not as “an opportunity to shine” but, instead, as “an opportunity to contribute.” In our experience, people hailing from cultures such as those of South Korea, Japan, Australia, and Singapore

find that attention to local culture enhances the likelihood of intervention success.

Based on our experience working with coaches, businesses, the health sector, governments, professional associations, and other groups, we discovered that interventions are more effective when they contain multiple elements including an educational component, a skills component, and a reflection component. Not surprisingly, this is aligned with the most effective teaching practices in general (Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013; Benjamin & Tullis, 2010).

1. Measurement

Nearly two decades ago, Diener (2000) proposed that nations create national accounts of well-being. Measuring well-being provides rich information to policy makers and government leaders. For example, the “Arab Spring” uprisings in Egypt could not be predicted by income levels, which were rising at the time. By contrast, measures of well-being were rapidly declining prior to the “Arab Spring.” Thus, people’s predictions about their own future well-being might allow leaders to anticipate and plan for potential problems.

Well-being measurement does more than just chart change and track progress. To be certain, measurement is crucial to determining the relative success of interventions; but measurement, itself, can enhance well-being. By way of analogy, people who track what they eat may be better able to maintain a healthy diet. In the same vein, a number of studies emerging from positive psychology suggest that simply assessing positive topics can enhance well-being. For example, in a placebo-controlled study conducted by Seligman and colleagues (2005), people who used a measure to identify their top strengths enjoyed boosted levels of happiness over time. It may be that repeated measurement improves attention to quality of life issues and aids people in directing resources to boost their own happiness. Certainly, this idea has received recent support from research by Ludwigs and colleagues (2018), in which people who merely measured their own happiness enjoyed boosts in happiness. DeNeve and colleagues (this volume) review case studies showing that simply measuring workers’ moods over time led to an

improvement in their moods. Importantly, it should be noted that measurement – especially baseline measurement – allows for the revision of interventions so that they are more directly individualized to those they intend to serve.

2. Education

Everyone, regardless of age, culture and other characteristics, intuitively seeks his or her own happiness. Unfortunately, people often make errors as they go about the business of trying to find the good life. For instance, people routinely mis-predict how long their happiness will endure after a desirable event such as the election of a favored political candidate (Gilbert, Pinel, Wilson, Blumberg & Wheatley, 1998). Similarly, people often invest in strategies that are less likely to produce happiness, such as excessively valuing money and sacrificing other values to a large degree (Diener & Biswas-Diener, 2002). As a result, we recommend that interventionists include didactic instruction around the definition, nature, and research regarding the causes of sustainable happiness. This can help citizens cultivate a better understanding of how to pursue well-being in effective ways. An example of this can be seen in the “wheel of well-being” web site created as part of a lottery-financed public mental health campaign in London. It is worth noting that educational web sites are relatively easy to create, scalable, and cost effective. They are also potentially good vehicles for collecting data and sharing experiences.

3. Skills

At its heart, the pursuit of well-being is a process. As a result, teaching well-being requires a set of learnable skills. Skills that are widely accepted as important to sustaining well-being include emotional intelligence, mindfulness, social skills, and health habits (Tov, 2018). Links to further information and programs related to these skills can be found in the Appendix.

4. Reflection

The development of skills, requires not only practice but also time for reflection, which provides the opportunity for people to understand how to apply a skill broadly across many aspects of life (McDaniel & Donnelly, 1996). It can also be crucial to understanding the extent to which the

skill is being used effectively and how it might need to be modified to be employed more effectively (Benjamin & Tullis, 2010). At the simplest level participants can be led to reflect on skills by inquiring about the degree to which they are employing them.

Individual Engagement and Retention

One problem that commonly confronts intervention programs is the difficulty in recruiting, engaging, and retaining participants. Here, we describe ways that interventionists can use to attract participants, and retain them throughout the course of the treatment:

a. Incentives

People sometimes will be attracted to participate in interventions if they receive rewards, whether these be money, recognition, or release time from work. For example, people might receive discounts on health insurance if they participate in a well-being program. Similarly, businesses might allow employees flexible time that allows participation in well-being interventions, even during work hours. In both cases— for health insurers and employers—there is a strong rationale for making these types of changes based on the likely return in health cost savings and increased productivity.

b. Dashboards and monitoring

If people can map their progress by being given clear (even real-time) feedback about their performance and progress on the well-being scales, this can encourage future effort.

c. Social activities

One of the most effective ways to involve people and keep them engaged and accountability is to place interventions in a group setting. In this way, friends and neighbors can reinforce each other for participation. In some cases, parties or meetings where people discuss their progress could help program retention.

d. Reminders

When people are learning skills over time, frequent reminders about doing the activities and skills can be useful, by encouraging participants to not forget the skill activities.

e. Convenience and not time-consuming

In the modern world, people are often very busy. Thus, making the intervention treatments and activities easy to perform and not overly time-consuming is important.

f. Targeting specific populations

When interventions are advertised as improving “happiness” they will attract only a select few who are interested in activities of this nature. It is possible to make well-being programs more widely appealing by positioning them as they relate to specific groups. For example, a program might target the well-being of grandparents and use language and examples that are of direct interest to them. When labelled and designed in this way, participation may be much higher because people in those groups are more likely to be attracted to an intervention that focuses on the lives they lead and on a group with which they identify.

g. Collaboration

Just as people can be encouraged by participating with a group of friends, they can also be attracted to a group to which they already belong, such as civic organizations, faith communities, or sports clubs. The advantages of existing groups such as these are that they can recruit people more easily, and the social aspect can help reinforce completion of the intervention.

Case Study: Blue Zones Interventions

The “Blue Zones” are geographic areas in which residents enjoy unusually healthy lifestyles and extreme longevity (Buettner, 2018). By reverse engineering many of the healthiest habits, interventionists recreate Blue Zones successes in other locales. These healthy habits include increasing one’s social network by connecting with new friends, walking on a regular basis, using checklists in the home to promote healthier eating and sleeping, attending self-improvement workshops, and receiving a life expectancy and body mass index screening.

These interventions are targeted at the municipal level, and towns and cities who are interested can receive Blue Zones Certification. To do so, leadership must enact at least 8 policies related to areas such as healthy eating, active living, and reducing tobacco use. They also need to implement 65% of the recommended policies, procedures, and designs that support widespread behavior change. These recommendations are specific to institutions that serve as key partners in health: schools, stores, restaurants, grocery stores, and places of worship. Recently, the city of Fort Worth, in Texas, received its Blue Zones Certification. The changes associated with the new policies include a 7% average drop in body mass index. Blue Zones estimates that the changes produced by the program will yield approximately 250 million US Dollars in health care savings ((D. Buettner, personal communication, October 19, 2018).

To date, the most high-profile case study for the Blue Zones is the project conducted in three neighboring cities in Southern California: Redondo Beach, Hermosa Beach, and Manhattan Beach. Changes in health and well-being policies across partner organizations led to:

- An increase in children walking to school (from 1% to 30%)
- The creation of 200 miles (321 km) of bike paths
- 7,500 residents attended workshops on purpose in life
- The passing of laws prohibiting smoking, even outdoors
- A 28% reduction in smoking
- A 15% drop in average body mass index

- A 11% increase in healthy eating

- A 12 % increase in reported well-being

How were these cities able to accomplish these remarkable gains? The Blue Zones follows a simple set of guidelines to create pilot programs:

- 1. Readiness for change:** The Blue Zones organization waits to be invited into a community. They are not looking to force unwanted change and they similarly recognize the perils inherent to promoting change before people are ready for it. Blue Zones focuses on partnering with cities that have an explicit interest in well-being policy and have either tried and failed or are looking for additional input.
- 2. Leadership investment:** Blue Zones requires a pledge from an array of leaders. Typically, this means the mayor, city manager, members of the city council, the superintendent of schools, and the local chamber of commerce. The pledge is simply an opportunity to establish a clear and cross-cutting mandate to promote health as a worthwhile goal.
- 3. Organize a 5-year steering committee:** This step is crucial in that it emphasizes long-term commitment as well as engages local resident in investing in their own community well-being.
- 4. Funding:** The funding model changes based on government structure, location, and other factors. Typically, the Blue Zones requires between 5 and 35 full-time staff members to advise on policy, facilitate workshops, and other support functions. In the past, one successful avenue for funding has been partnering with local insurance companies and hospitals, based on the cost savings they will enjoy.
- 5. Create a strategic plan:** This plan typically articulates short and long-term objectives and identifies metrics to be used to create baseline measures, track progress, and evaluate success.
- 6. Staffing:** Hire and deploy a team to oversee the 5-year change.

Conclusions

There are now a variety of focused interventions, as well as broad multi-component interventions, for raising well-being, with research to support their effectiveness. Some major important directions now for further action are:

- A. Dissemination and attention:** It is up to policy makers and other stakeholders to promote and disseminate well-being interventions. This includes not only a commitment to well-being over the long-term but also an opportunity to collaborate across government functions and public/private partnerships.
- B. One size does not fit all.** One of the major insights gleaned from research on treatments for mental illness is that certain specific therapies are much more effective for certain problems and not effective for others (Barlow, et al., 2013). Generalizing this to intervention with non-clinical populations, we encourage modification of interventions so that they are culturally appropriate and individualized. The future of well-being interventions will likely see a proliferation of treatments that are targeted toward specific individuals and groups with particular needs.
- C. Commit to tracking and research:** Research on the well-being interventions is an absolute necessity and should be continuous. Interventions, for example, should be contrasted and tested against each other for specific populations and needs.

Ultimately, well-being intervention is a valuable pursuit. Interventions, such as the ENHANCE program, can be delivered effectively using digital media, which has the advantage of being relatively low cost and easy to deliver. The proven and impressive effectiveness of both Enhance and Blue Zones in raising both well-being and health indicate that these interventions can be effective in improving quality of life. Governments that invest in such programs, whether they are digital or in person, stand to benefit from the myriad downstream costs savings to healthcare and justice systems, and from better performance at work and school. Most importantly, the prospect of a happier citizenry is a great benefit in itself.

Table 6. Considerations for Well-being Interventions

Considerations for Well-being Interventions

Leader and citizen acceptance and input

Cultural appropriateness

Language that appeals to the target group

A strategy for measurement and evaluation for progress and success

Clear target populations for intervention

Targeting specific groups so that social influences help attract and retain participants for the intervention

Mode of delivery (classes, information campaigns, digital)

Possible revision and improvement over time

References

- Aknin, L. B., Barrington-Leigh, C. P., Dunn, E. W., Helliwell, J. F., Burns, J., Biswas-Diener, R., ... & Norton, M. I. (2013). Prosocial spending and well-being: Cross-cultural evidence for a psychological universal. *Journal of Personality and Social Psychology, 104*(4), 635-652.
- Barlow, D. H., Bullis, J. R., Comer, J. S., & Ametaj, A. A. (2013). Evidence-based psychological treatments: An update and a way forward. *Annual Review of Clinical Psychology, 9*, 1-27.
- Beck, A. T. (1970). Cognitive therapy: Nature and relation to behavior therapy. *Behavior Therapy, 1*(2), 184-200.
- Benjamin, A. S., & Tullis, J. (2010). What makes distributed practice effective? *Cognitive Psychology, 61*(3), 228-247.
- Biswas-Diener, R. (2006). From the equator to the North Pole: A study of character strengths. *Journal of Happiness Studies, 7*(3), 293-310.
- Biswas-Diener, R. & Lyubchik, N. (2013). Microculture as a contextual positive intervention. In Kashdan, T. & Ciarrochi, J. (Eds. *Bridging Acceptance and Commitment Therapy and positive psychology: A practitioner's guide to a unifying framework*. Oakland, CA: Context Press, 194-214.
- Biswas-Diener, R., Vittersø, J., & Diener, E. (2010). The Danish effect: Beginning to explain high well-being in Denmark. *Social Indicators Research, 97*(2), 229-246.
- Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: A meta-analysis of randomized controlled studies. *BMC Public Health, 13*(1), 119.
- Brackett, M. A., Rivers, S. E., Shiffman, S., Lerner, N., & Salovey, P. (2006). Relating emotional abilities to social functioning: A comparison of self-report and performance measures of emotional intelligence. *Journal of Personality and Social Psychology, 91*(4), 780-795.
- Buettner, D. (2018). *Blue zones project*. Retrieved from <http://explore.bluezonesproject.com/iowa-city/>
- Chancellor, J., Layous, K., & Lyubomirsky, S. (2015). Recalling positive events at work makes employees feel happier, move more, but interact less: A 6-week randomized controlled intervention at a Japanese workplace. *Journal of Happiness Studies, 16*(4), 871-887.
- Chancellor, J., Margolis, S. M., Jacobs Bao, K., & Lyubomirsky, S. (2018). Everyday prosociality in the workplace: The benefits of giving, getting, and glimpsing. *Emotion, 18*, 507-517.
- Chiesa, A., & Serretti, A. (2010). A systematic review of neurobiological and clinical features of mindfulness meditations. *Psychological Medicine, 40*(8), 1239-1252.
- Clark, A. E., Fleche, S., Layard, R., Powdthavee, N., & Ward, G. (2018). The origins of happiness: The science of well-being over the life course. Princeton University Press: Princeton, NJ.
- Cohen, S., Doyle, W. J., Turner, R., Alper, C. M., & Skoner, D. P. (2003). Sociability and susceptibility to the common cold. *Psychological Science, 14*(5), 389-395.
- Colcombe, S., & Kramer, A. F. (2003). Fitness effects on the cognitive function of older adults: A meta-analytic study. *Psychological Science, 14*(2), 125-130.
- Creswell, J. D., Myers, H. F., Cole, S. W., & Irwin, M. R. (2009). Mindfulness meditation training effects on CD4+ T lymphocytes in HIV-1 infected adults: A small randomized controlled trial. *Brain, Behavior, and Immunity, 23*(2), 184-188.
- De Jong, P., & Kim Berg, I. (2008). *Interviewing for solutions*. Belmont, CA: Thomson Brooks/Cole
- De Neve, J-E., et al. (2019). Employee wellbeing, productivity, and firm performance: Evidence and case studies. Global Happiness Council, *Global Happiness Policy Report*.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*(3), 542-575.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist, 55*(1), 34-43.
- Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicators Research, 57*(2), 119-169.
- Diener, E., Biswas-Diener, R., (2018). Social well-being: Research and policy recommendations. In J. F. Helliwell, R. Layard, & J. Sachs (Eds.), *Global Happiness Policy Report: 2018*. (Pp. 129-159). Global Happiness Council.
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being, 3*(1), 1-43.
- Diener, E., Diener, C., Choi, H., & Oishi, S. (2018). Revisiting "Most People Are Happy"—And discovering when they are not. *Perspectives on Psychological Science, 13*(2), 166-170.
- Diener, E., Heintzelman, S. J., Kushlev, K., Tay, L., Wirtz, D., Lutes, L. D., & Oishi, S. (2017). Findings all psychologists should know from the new science on subjective well-being. *Canadian Psychology/psychologie Canadienne, 58*(2), 87-104.
- Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being* (pp. 185-218). Cambridge, MA: MIT Press.
- Diener, E., Pressman, S. D., Hunter, J., & Delgado-Chase, D. (2017). If, why, and when subjective well-being influences health, and future needed research. *Applied Psychology: Health and Well-Being, 9*(2), 133-167.
- Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science, 13*(1), 80-83.
- Diener, E., Seligman, M. E. P., Choi, H., & Oishi, S. (2018). Happiest people revisited. *Perspectives on Psychological Science, 13*(2), 176-184.
- Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest, 14*(1), 4-58.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology, 84*(2), 377-389.
- Ensari, I., Greenlee, T. A., Motl, R. W., & Petruzzello, S. J. (2015). Meta-analysis of acute exercise effects on state anxiety: An update of randomized controlled trials over the past 25 years. *Depression and Anxiety, 32*(8), 624-634.
- Erbas, Y., Ceulemans, E., Lee Pe, M., Koval, P., & Kuppens, P. (2014). Negative emotion differentiation: Its personality and well-being correlates and a comparison of different assessment methods. *Cognition and Emotion, 28*(7), 1196-1213.
- Friedman, E.M., Ruini, C., Foy, R., Jaros, L., Sampson, H., Ryff, C.D. (2017). Lighten UP! A community-based group intervention to promote psychological well-being in older adults. *Aging and Mental Health, 21*(2), 199-205.
- Gable, S. L., & Bromberg, C. (2018). Healthy social bonds: A necessary condition for well-being. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. DOI:nobascholar.com
- Gilbert, D. T., Pinel, E. C., Wilson, T. D., Blumberg, S. J., & Wheatley, T. P. (1998). Immune neglect: a source of durability bias in affective forecasting. *Journal of Personality and Social Psychology, 75*(3), 617-638.
- Gillison, F. B., Skevington, S. M., Sato, A., Standage, M., & Evangelidou, S. (2009). The effects of exercise interventions on quality of life in clinical and healthy populations: A meta-analysis. *Social Science & Medicine, 68*(9), 1700-1710.
- Greenfield, E. A., & Marks, N. F. (2004). Formal volunteering as a protective factor for older adults' psychological well-being. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 59*(5), S258-S264.
- Gropper, J., & Wiegand, B. (2013). *A staircase of individual and organizational health: Bringing the biology of business performance to life*. [White paper]. Retrieved from <http://www.axeospi.com/wp-content/uploads/2015/01/Staircase-of-Individual-and-Organizational-Health.pdf>
- Hausmann, L. R., Parks, A., Youk, A. O., & Kwok, C. K. (2014). Reduction of bodily pain in response to an online positive activities intervention. *The Journal of Pain, 15*(5), 560-567.
- Heintzelman, S. J., Kushlev, K., Lutes, L. D., Wirtz, D., Kanip-payoor, J. M., Leitner, D., Oishi, S., & Diener, E. (2018). *ENHANCE: Evidence for the efficacy of a comprehensive intervention program to promote durable changes in subjective well-being*. Retrieved from <https://eddiener.com/articles/1376>
- Helliwell, J. F., & Wang, S. (2012). The state of world happiness. In J.F. Helliwell, R. Layard and J. Sachs, (Eds.). *World Happiness Report*. New York, NY: The Earth Institute, Columbia University, pp. 10-57.
- Helliwell, J.F. (2018). Global happiness policy synthesis 2018. *Global Happiness Policy Report, 2018*. Retrieved from https://s3.amazonaws.com/ghc-2018/UAE/GHPR_Ch2.pdf
- Helliwell, J. F., Aknin, L. B., Shiple, H., Huang, H., & Wang, S. (2018). Social capital and prosocial behavior as sources of well-being. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. DOI:nobascholar.com
- Hofmann, S. G., Grossman, P., & Hinton, D. E. (2011). Loving-kindness and compassion meditation: Potential for psychological interventions. *Clinical Psychology Review, 31*(7), 1126-1132.
- Hülshager, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology, 98*(2), 310-325.
- Kashdan, T. B., Barrett, L. F., & McKnight, P. E. (2015). Unpacking emotion differentiation: Transforming unpleasant experience by perceiving distinctions in negativity. *Current Directions in Psychological Science, 24*(1), 10-16.
- Kim, E. S., Kubzansky, L. D., Soo, J., & Boehm, J. K. (2016). Maintaining healthy behavior: A prospective study of psychological well-being and physical activity. *Annals of Behavioral Medicine, 51*(3), 337-347.
- Kramer, A.F. & Erickson, K.I. (2007). Capitalizing on cortical plasticity: Influence of physical activity on cognition and brain function. *Trends in Cognitive Sciences, 11*(8), 342-348.
- Lambert, D. T. L., Moliver, N., & Thompson, D. (2015). Happiness intervention decreases pain and depression, boosts happiness among primary care patients. *Primary Health Care Research & Development, 16*(2), 114-126.
- Lambert, L., Passmore, H. A., & Joshanloo, M. (2018). A positive psychology intervention program in a culturally-diverse university: Boosting happiness and reducing fear. *Journal of Happiness Studies, 1*-22. <https://doi.org/10.1007/s10902-018-9993-z>
- Lambert, L., Passmore, H. A., Scull, N., Al Sabah, I., & Hussain, R. (2018). Wellbeing matters in Kuwait: The Alnowair's Bareec education initiative. *Social Indicators Research, 1*-23. <https://doi.org/10.1007/s11205-018-1987-z>
- Layard, R. (2018). *Mental illness destroys happiness and is costless to treat*. Global Happiness Policy Report 2018. Retrieved from https://s3.amazonaws.com/ghc-2018/UAE/GHPR_Ch3.pdf
- Layous, K., Lee, H., Choi, I., & Lyubomirsky, S. (2013). Culture matters when designing a successful happiness-increasing activity: A comparison of the United States and South Korea. *Journal of Cross-Cultural Psychology, 44*(8), 1294-1303.
- Ludwigs, K., Lucas, R., Burger, M., Veenhoven, R., & Arends, L. (2017). How Does More Attention to Subjective Well-Being Affect Subjective Well-Being? *Applied Research in Quality of Life, 13*(4), 1055-1080.
- Lutes, L. D., & Steinbaugh, E. K. (2010). Theoretical models for pedometer use in physical activity interventions. *Physical Therapy Reviews, 15*(3), 143-153.
- Lyubomirsky, S. (2001). Why are some people happier than others? The role of cognitive and motivational processes in well-being. *American Psychologist, 56*(3), 239-249.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9*(2), 111-131.
- Lyubomirsky, S., Tucker, K. L., & Kasri, F. (2001). Responses to hedonically conflicting social comparisons: Comparing happy and unhappy people. *European Journal of Social Psychology, 31*(5), 511-535.
- Malouff, J. M., & Schutte, N. S. (2016). Can psychological interventions increase optimism? A meta-analysis. *Journal of Positive Psychology, 12*(6), 594-604.
- McAuley, E., Blissmer, B., Marquez, D. X., Jerome, G. J., Kramer, A. F., & Katula, J. (2000). Social relations, physical activity and well-being in older adults. *Preventive Medicine, 31*(5), 608-617.
- McDaniel, M. A. & Donnelly, C. M. (1996). Learning with analogy and elaborative interrogation. *Journal of Educational Psychology, 88*, 508-519.
- Mills, J. M., R. Fleck, C., & Kozikowski, A. (2013). Positive psychology at work: A conceptual review, state-of-practice assessment, and a look ahead. *The Journal of Positive Psychology, 8*(2), 153-164.
- Morrison, M., Tay, L., Jebb, A. T., & Diener, E. (2018). Subjective well-being across the lifespan. Manuscript submitted for publication.

- Moskowitz, J. T., Carrico, A. W., Duncan, L. G., Cohn, M. A., Cheung, E. O., Batchelder, A., ... & Folkman, S. (2017). Randomized controlled trial of a positive affect intervention for people newly diagnosed with HIV. *Journal of Consulting and Clinical Psychology, 85*(5), 409-423.
- Nelson, S. K., Della Porta, M. D., Jacobs Bao, K., Lee, H. C., Choi, I., & Lyubomirsky, S. (2015). "It's up to you": Experimentally manipulated autonomy support for prosocial behaviors improves well-being in two cultures over six weeks. *The Journal of Positive Psychology, 10*(5), 463-476.
- Nelson, S. K., Layous, K., Cole, S. W., & Lyubomirsky, S. (2016). Do unto others or treat yourself? The effects of prosocial and self-focused behavior on psychological flourishing. *Emotion, 16*(6), 850-861.
- Oishi, S. (2018). Culture and subjective well-being: Conceptual and measurement issues. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. DOI:nobascholar.com
- Otake, K., Shimai S., Tanaka-Matsumi J., Otsui K., & Fredrickson B. (2006). Happy people become happier through kindness: A counting kindness intervention. *Journal of Happiness Studies, 7*(3), 361-375.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science, 8*(3), 162-166.
- Pond, Jr, R. S., Kashdan, T. B., DeWall, C. N., Savostyanova, A., Lambert, N. M., & Fincham, F. D. (2012). Emotion differentiation moderates aggressive tendencies in angry people: A daily diary analysis. *Emotion, 12*(2), 326-337.
- Pressman, S. D., Kraft, T. L., & Cross, M. P. (2015). It's good to do good and receive good: The impact of a 'pay it forward' style kindness intervention on giver and receiver well-being. *The Journal of Positive Psychology, 10*(4), 293-302.
- Sachs, J. D. (2018). *Good governance in the 21st century*. Global Happiness Policy Report 2018. Retrieved from https://s3.amazonaws.com/ghc-2018/UAE/GHPR_Ch1.pdf
- Seligman, M. E. P., & Adler, A. (2018). *Positive education*. Global Happiness Policy Report, 2018. Retrieved from https://s3.amazonaws.com/ghc-2018/UAE/GHPR_Ch4.pdf
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American Psychologist, 60*(5), 410-421.
- Seligman, M. E., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist, 61*(8), 774-788.
- Siedlecki, K. L., Salthouse, T. A., Oishi, S., & Jeswani, S. (2014). The relationship of social support and subjective well-being across age. *Social Indicators Research, 117*(2), 561-576.
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology, 65*(5), 467-487.
- Stone, B. M., & Parks, A. C. (2018). Cultivating subjective well-being through positive psychological interventions. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. DOI:nobascholar.com
- Tay, L., Chan, D., & Diener, E. (2014). The metrics of societal happiness. *Social Indicators Research, 117*(2), 577-600.
- Taylor, C. T., Lyubomirsky, S., & Stein, M. B. (2017). Upregulating the positive affect system in anxiety and depression: Outcomes of a positive activity intervention. *Depression and Anxiety, 34*(3), 267-280.
- Tenney, E. R., Poole, J. M., & Diener, E. (2016). Does positivity enhance work performance?: Why, when, and what we don't know. *Research in Organizational Behavior, 36*, 27-46.
- Tov, W. (2018). Well-being concepts and components. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. DOI:nobascholar.com
- Warr, P., & Nielsen, K. (2018). Wellbeing and work performance. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. DOI:nobascholar.com
- Weiss, L. A., Westerhof, G. J., & Bohlmeijer, E. T. (2016). Can we increase psychological well-being? The effects of interventions on psychological well-being: A meta-analysis of randomized controlled trials. *PLOS ONE, 11*(6), e0158092. doi: 10.1371/journal.pone.0158092