Finding Happiness: Tailoring Positive Activities for Optimal Well-Being Benefits
S. Katherine Nelson and Sonja Lyubomirsky
University of California, Riverside

REFERENCE: Nelson, S. K. & Lyubomirsky, S. (2012). Finding happiness: Tailoring positive activities for optimal well-being benefits. To appear in M. Tugade, M. Shiota, & L. Kirby (Eds.), *Handbook of positive emotions*. New York: Guilford.

Finding Happiness: Tailoring Positive Activities for Optimal Well-Being Benefits

"We all live with the objective of being happy; our lives are all different and yet the same." ~Anne Frank

No matter how different people's lives – whether due to age, gender, culture, or life experience – the desire for happiness is widespread. Across cultures, the majority of people include happiness as one of their primary goals in life (Diener, 2000), and many seek ways to render themselves happier (Bergsma, 2008). Not surprisingly, the secrets of how to become happier and live a more fulfilling life have been topics of philosophical and lay interest for many years (Kesebir & Diener, 2008). However, the route to happiness may be different for each individual. With recent developments in the field of positive psychology, the question of how to become happier has become a topic of growing scientific interest (Lyubomirsky, Sheldon, & Schkade, 2005; Seligman, Steen, Park, & Peterson, 2005), but few have examined how individuals may differ in their pursuit of happiness. That being so, Anne Frank's recognition of the commonalities and differences in people's lives, as well as in the pursuit of happiness itself, points to important new directions for research.

What Is Happiness?

Researchers have been theorizing about happiness for more than three decades (Diener, 1984; Diener, Suh, Lucas, & Smith, 1999; Ryan & Deci, 2001; Ryff, 1989). Traditionally, theorists have distinguished between hedonic and eudaimonic well-being, suggesting that the former is associated with the pursuit of pleasure and the latter with following meaningful goals and finding purpose in life (Ryan & Deci, 2001). Recent work, however, suggests that this distinction does not represent two different types of happiness, but rather two different ways of pursuing it (Kashdan, Biswas-Diener, & King, 2008). Other researchers have also recognized the need to examine several dimensions of well-being (Kashdan & Steger, 2011), and to consider multiple ways to conceptualize its structure (Busseri & Sadava, 2011). Thus, a comprehensive definition of well-being includes not only subjective well-being, but also meaning and purpose in life.

Subjective well-being is most frequently described as consisting of an affective component (i.e., the experience of relatively frequent positive and relatively infrequent negative emotions) and a cognitive component (i.e., life satisfaction or the overall evaluation of a person's life) (Diener, 1984; Diener et al., 1999). Thus, a "happy" person is one who reports frequent

positive emotions, infrequent negative emotions, and high life satisfaction. In this chapter, we use the terms happiness and subjective well-being interchangeably.

Other theories emphasize the importance of meaning and purpose in understanding well-being (Ryff, 1989; Steger, 2009). Individuals who report having meaning in life are those who see significance in their lives and have the capacity to view their own life purpose or mission (Steger, 2009). Although meaning in life is strongly correlated with overall well-being (Steger, Kashdan, Sullivan, & Lorentz, 2008), research suggests that the two constructs are not selfsame (Steger & Kashdan, 2007). Thus, including assessments of meaning in addition to assessments of subjective happiness may substantively add to scientists' understanding of well-being.

In this chapter, our focus is on experimental intervention studies, in which participants are prompted to engage in a positive activity over time; almost all such studies use either measures of overall happiness or its two components (i.e., mood/emotions and life satisfaction) as outcome variables. However, because of the importance of meaning in life as a related construct, we also sometimes refer to meaning in life, depending on the research being described.

Is It Possible And Desirable To Become Happier?

Research indicates that people's happiness levels are stable across time – and therefore not amenable to improvement – due to genetic factors (Lykken & Tellegen, 1996; Nes, Roysamb, Tambs, Harris, & Reichborn-Kjennerud, 2006), personality influences (Diener & Lucas, 1999; McCrae & Costa, 1990), and inevitable hedonic adaptation to positive and negative life experiences (Frederick & Loewenstein, 1999; Lyubomirsky, 2011). Despite these reasons for pessimism, other work provides evidence that happiness can indeed sustainably change for the better. For example, happiness is not always stable across a person's lifetime (Fujita & Diener, 2005) and personality can change over time, even after age 30 (Helson, Jones, & Kwan, 2002; Roberts, Walton, & Viechtbauer, 2006). In addition, studies have shown that well-being can be improved via lifestyle changes (e.g., exercise, nutrition; Walsh, 2011), and by engaging in positive activities, such as performing acts of kindness, becoming more grateful, or practicing optimism (see Sin & Lyubomirsky, 2009, for a meta-analytic review).

In their sustainable happiness model, Lyubomirsky, Sheldon, and Schkade (2005) integrated past research findings to argue that, although more than half of population differences in happiness are due to genetics, personality, and life circumstances, a large portion are likely accounted for by people's intentional activities. That is, how people think (e.g., whether they

think positively or gratefully) and what they do (e.g., whether they perform acts of kindness or forgiveness) in their daily lives can play a large role in how happy they are. In sum, the sustainable happiness model suggests that people have a fair amount of control over their happiness.

Supporting the sustainable happiness model, one study followed students over the course of 12 weeks and asked them to track positive changes in their lives – both those that entailed beginning new activities (e.g., pursuing an important new goal) and those that entailed improvements in their life circumstances (e.g., obtaining a new roommate). The results revealed that activity changes are associated with bigger and longer-lasting increases in happiness than circumstantial changes (Sheldon & Lyubomirsky, 2006a). Also providing evidence for the sustainable happiness model are numerous studies in which participants are instructed to engage in a positive activity, such as performing acts of kindness or writing gratitude letters. A recent meta-analysis of the benefits of positive interventions revealed that such activities typically show a moderate effect size (mean r = .30; Sin & Lyubomirsky, 2009), suggesting that performing them leads to robust improvements in well-being.

Just because people can improve their happiness, however, does not mean that they should. Is the pursuit of happiness a desirable and advisable goal? In a meta-analysis of 225 studies, happiness was found to precede, correlate with, and cause many beneficial outcomes, including more prosocial behavior, more satisfying relationships with others, better health, and superior job performance (Lyubomirsky, King, & Diener, 2005). Thus, a large and persuasive body of work suggests that being happy does not just make the individual feel good, but benefits himself, his family, and his community in myriad ways. Other research, however, has revealed that happiness may have a "dark side" (Gruber, Mauss, & Tamir, 2011). For example, in one study, valuing happiness was associated with disappointment and decreased, rather than increased, well-being (Mauss, Tamir, Anderson, & Savino 2011). These findings suggest that when designing experiments to test which activities or practices promote well-being, researchers should strive to direct their participants' efforts and attention on the particular activities (e.g., practicing acts of kindness) and not on the value of becoming happier.

Happiness-Increasing Positive Activity Interventions

The question of how people can improve their personal well-being is the focus of both great public and scientific interest. Amazon.com boasts more than 6,000 titles under the

categories of happiness and self-help, with titles such as *Every Day a Friday: How to Be Happier 7 Days a Week* and *The 18 Rules of Happiness: How to Be Happy.* Unfortunately, many trade books that boast secrets to happiness are not grounded in scientific evidence or theory, and do not draw on the growing research on strategies that people can use to enhance their well-being (Sin & Lyubomirsky, 2009). For example, positive activities such as counting blessings (Emmons & McCullough, 2003; Lyubomirsky, Sheldon et al., 2005; Sheldon & Lyubomirsky, 2006b), visualizing a bright future (Boehm, Lyubomirsky, & Sheldon, 2011; King, 2001; Layous, Nelson, & Lyubomirsky, 2011; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011; Sheldon & Lyubomirsky, 2006b), performing acts of kindness (Lyubomirsky, Sheldon et al., 2005; Sheldon, Boehm, & Lyubomirsky, in press), and writing letters of gratitude (Boehm et al., 2011; Lyubomirsky et al., 2011; Seligman et al., 2005) have been found to improve well-being in multiple randomized controlled intervention studies.

How And Why Do Positive Activity Interventions Work?

An important goal of research on positive activity interventions is not just to establish that particular activities are successful in increasing well-being, but to uncover how and why these activities work, as well as the optimal conditions for their success. In other words, what activities work best, under what conditions, and for whom? Accordingly, we describe below a number of important factors that mediate and moderate the effectiveness of positive activities to enhance well-being.

Mediators of intervention effectiveness. Understanding the underlying mechanisms that lead positive activities to successfully improve well-being – that is, the "why" question – is an important goal of positive activity research. If researchers can identify precisely why happiness activities are effective, they will gain a better scientific understanding of the determinants of happiness, as well as the tools to design more successful activities to improve well-being. To date, studies have provided preliminary support for three mediators underlying the effectiveness of happiness-enhancing activities – increased positive emotions, more positive reactions from others, and increased need satisfaction.

Positive emotions. Positive emotions are an important component of happiness; people who experience more frequent positive emotions report higher subjective well-being (Fredrickson & Joiner, 2002). Furthermore, theory suggests that the more positive emotions an individual experiences after a positive life change, the more likely her well-being boost will last

(Lyubomirsky, 2011). Hence, not surprisingly, positive emotions are likely to play an important role in positive activities.

Two studies found support for positive emotions as a mechanism by which positive activities promote well-being. In one study, participants who practiced gratitude or optimism became happier over time, and this effect was mediated by their ability to derive positive emotions from their daily experiences and to find those experiences satisfying (Lyubomirsky & Dickerhoof, 2010). In another study, participants who received social support for performing acts of kindness became happier over a 9-week period, and this effect was mediated by their enjoyment of the activity (Della Porta & Lyubomirsky, 2011). These findings suggest that the more that practicing happiness strategies (e.g., expressing gratitude to family members) leads people to derive joy and satisfaction from their daily experiences (e.g., enjoying spending time with family), the more likely those strategies are to foster happiness. Thus, the ability of positive activities to successfully increase and sustain positive emotions is an important factor in determining and sustaining later well-being.

Positive reactions from others. The degree to which an individual receives positive reactions from others after performing positive activities is another important mediator of intervention effectiveness. In one study, performing acts of kindness increased participants' happiness via their perception that others were grateful for their kindnesses (Tkach, 2006). Future studies should further examine positive feedback from others as a potential mediator for other positive activities. For example, experiencing positive reactions from the recipients of a gratitude letter may mediate the link between that activity and enhanced well-being.

Need satisfaction. Self-determination theory suggests that the fulfillment of innate psychological needs is necessary to achieve optimal well-being (Deci & Ryan, 2000). The three basic needs are autonomy (i.e., feeling that one's actions are under one's control), relatedness (i.e., feeling close and connected to others), and competence (i.e., feeling effective and skilled). Feelings of need satisfaction have been related to well-being and performance across many contexts (Deci & Ryan, 2008; Ryan & Deci, 2008; Sheldon, 2004), as well as to more positive affect and less negative affect (Sheldon, Elliott, Kim, & Kasser, 2001).

A few studies have shown that increases in need satisfaction lead to subsequent increases in subjective well-being (Niemiec, Ryan, & Deci, 2009; Sheldon & Elliot, 1999). These findings suggest that positive activities may improve people's well-being by increasing their feelings of

need satisfaction. Indeed, one experiment found that the effect of expressing gratitude or optimism on improvements in well-being was mediated by the feelings of autonomy and relatedness, but not competence (Boehm & Lyubomirsky, 2011). Another study found that doing acts of kindness fostered feelings of autonomy (Della Porta & Lyubomirsky, 2011), and these bolstered feelings mediated increases in happiness.

Moderators of intervention effectiveness.

Timing. In multiple studies, the timing with which positive activities are practiced has been found to be an important moderator of the activities' effectiveness. In a gratitude intervention (Lyubomirsky, Sheldon et al., 2005), participants were instructed to count their blessings either three times or one time each week. Interestingly, only participants who counted their blessings once a week showed significantly larger gains in well-being than the control group. Participants who counted their blessings only once per week may have found the activity more meaningful and rewarding, whereas participants who counted their blessings multiple times per week may have grown bored of the activity or had trouble generating new aspects of their lives for which to be grateful.

In another test of the importance of timing, students were instructed to perform five acts of kindness all in one day (e.g., all on Monday) or on any day of the week (Lyubomirsky, Sheldon et al., 2005). Participants who performed all five acts of kindness in one day became happier over the course of the intervention, but participants who spread their kindnesses out across the week did not show any changes. Those who carried out all five kindnesses in a single day may have obtained a relatively larger and more salient burst of positive emotions from those activities, and this burst may have set into motion an upward spiral, such that feeling joyful or fulfilled on Monday may have enhanced their work productivity or a close relationship on the same day, which may have generated yet more positive emotions on Tuesday, and so on (cf. Fredrickson & Joiner, 2002).

As evidenced by these two studies, timing positive activities in ways that generate the greatest boost in positive emotion and minimize boredom is critical when striving to optimize well-being. Future studies would do well to test how varied timing and frequency of practice may influence the effectiveness of other positive activities. For example, does practicing optimistic thinking deliver the biggest rewards when done once a day, once a week, or only when one is feeling low? Similarly, due to the stress surrounding life transitions (e.g., moving away

from home or having a baby), investigators may seek to establish the costs and benefits of timing the practice of optimism activities around these transitions.

Variety. Just as spicing up a physical exercise routine yields better fitness results, instilling variety into the practice of positive activities leads to superior results with respect to happiness. In two studies, Sheldon and colleagues (in press) demonstrated the influence of variety on activity effectiveness. In the first study, participants who reported greater variety in a circumstantial or activity life change they recently made showed the biggest gains in positive emotions. In a second study, a 10-week acts of kindness intervention, those who varied their acts of kindness showed increases in well-being over the course of the intervention, whereas those instructed to do the same acts each week actually became less happy (Sheldon et al., in press). These findings illustrate that individuals can inject variety into their efforts in pursuing happiness by changing up a particular positive strategy. Another way to introduce variety into one's positive practices is to engage in different types of happiness-increasing activities – serially or simultaneously. Indeed, research with large diverse samples shows that people typically practice up to eight activities at a given time to improve well-being (Parks, Della Porta, Pierce, Zilca, & Lyubomirsky, in press).

Motivation and effort. Undoubtedly, individuals who are motivated to become happier and muster effort towards that goal will benefit more from happiness activities. For example, in one study, participants self-selected into either a "happiness activity" study (and, thus, presumably, were motivated to become happier) or into a "cognitive exercises" study (and presumably were relatively not motivated to seek happiness) (Lyubomirsky et al., 2011). Participants who were motivated to become happier showed greater increases in well-being when performing positive activities (which involved expressing gratitude or optimism) relative to control activities. In addition, participants who put more effort into the positive activities (as judged by independent raters) showed greater increases in well-being.

Consistent with research on the role of effort, studies have also demonstrated that individuals who persevere in practicing positive activities are also more likely to demonstrate well-being benefits (Cohn & Fredrickson, 2010; Sheldon & Lyubomirsky, 2006b). In one study, participants who continued to practice a happiness activity (which involved meditation) after the study was complete – thus exhibiting more effort – showed sustained increases in well-being for up to 18 months (Cohn & Fredrickson, 2010).

Person-activity fit. Not all happiness increasing activities will benefit every person to the same degree. One factor that may influence the extent to which an individual becomes happier as a result of a particular activity involves the degree to which that activity matches his or her personality, goals, interests, and values. For example, introverts may benefit relatively more from a reflective activity (e.g., counting blessings), whereas extraverts may benefit relatively more from a social activity (e.g., performing acts of kindness). We have come to define this idea as person-activity fit (Lyubomirsky, 2008; Lyubomirsky, Sheldon, et al., 2005). Greater fit has been found to be associated with greater benefit from the activity (Nelson, Layous, Oberle, Schonert-Reichl, & Lyubomirsky, 2011; Sin, Della Porta, & Lyubomirsky, 2011). For example, in one study, students who reported higher social responsibility derived relatively greater well-being gains from performing acts of kindness (Nelson et al., 2011).

In another test of person-activity fit, participants were assigned to complete a positive activity based on their previous activity preferences. Compared to individuals who were randomly assigned to positive activities, those who were matched to an activity based on their preferences reported greater increases in subjective well-being (Schueller, 2011). Similarly, another study found that participants whose assigned happiness-increasing strategy fit their personality (i.e., they enjoyed it and it felt natural to them) reported greater increases in well-being relative to those who practiced an ill-fitting happiness activity or a control activity (Dickerhoof, 2007). These findings support the hypothesis that person-activity fit is a key moderator of activity effectiveness.

Summary. In sum, a significant amount of work on the underlying mediators and moderators of activity effectiveness has uncovered many "secrets" to becoming happier. Findings from these studies reveal that the most successful practitioners of happiness-increasing activities are those who are motivated to become happier and put forth effort into that goal. Furthermore, successful activities are those that increase positive emotions and fulfill psychological needs, are practiced with optimal timing to minimize boredom, and, finally, infuse variety into one's life and daily pursuits.

Tailoring Positive Activities for Specific Populations: Population-Activity Fit

Although a considerable amount of work has examined the underlying mediators and moderators of the effectiveness of happiness activities, surprisingly little research has tried to understand whether certain activities may be more or less beneficial for different groups of

people. One recent review emphasized the importance of context (e.g., whether an individual is in a happy or troubled relationship) in determining whether strategies such as forgiveness, kindness, optimism, and positive attributions will be beneficial to his or her well-being (McNulty & Fincham, in press). Given that not everyone will respond equally well to particular positive activities, an important new research direction to uncover the role of context in happiness interventions involves understanding how special groups or populations of individuals respond to positive activities.

Although a "population-activity fit" approach has yet to be applied to understanding the success of positive activities, this approach has been prominent in psychotherapy research for decades (Kazdin & Blase, 2011). In 1967, a clinical researcher posed the following key question: "What treatment, by whom is most effective for this individual with that specific problem and under which set of circumstances" (Paul, 1967, p.111). More recently, researchers have noted the value of understanding "moderator profiles" – that is, identifying which individuals are at risk for mental health conditions and who responds best to certain kinds of treatment – as a way to prevent mental illness (Atkins & Frazier, 2011; Shoham & Insel, 2011). Mirroring this approach, understanding which individuals will respond better to positive activities is critical, because it will help researchers to tailor particular strategies to particular groups of individuals and allow the general public to better select and implement the most optimal strategies for themselves.

Using a population-activity fit approach to identify group-level moderators of activity effectiveness, we describe below several groups likely to benefit from further research and analysis. With respect to these groups, future investigators need to ask three questions: 1) How do these groups respond to positive activities in general?; 2) Do these groups benefit from particular activities more than others?; and 3) Can specific activities be tailored to better fit particular groups? For example, in the case of people suffering from depression, research should first examine whether positive activities in general can effectively improve well-being in this population and then whether certain activities (such as practicing gratitude) are a better fit than other activities. Finally, researchers should test the best ways to implement the successful activities with depressed individuals (e.g., practicing gratitude by counting blessings versus writing letters).

Children and Adolescents.

Although subjective well-being among children and adolescents relates to important academic (Suldo, Thalji, & Ferron, 2011), emotional (Schmid et al., 2011), and social (Richards & Huppert, 2011) outcomes, surprisingly little work has been conducted on positive psychological constructs in this population. A recent content analysis of the literature in school psychology revealed a striking imbalance: Of the 1,168 articles reviewed, happiness was the topic of four articles, optimism was the topic of three, and purpose and meaning in life was the topic of none (Froh, Huebner, Youssef, & Conte, 2011).

Despite the limited work in this area, some studies do suggest that children and adolescents may obtain well-being benefits from positive activities (Froh, Kashdan, Ozinkowski, & Miller, 2009; Froh, Sefick, & Emmons, 2008; Gilham, Reivich, Jaycox, & Seligman, 1995; Nelson et al., 2011). For example, several experiments have demonstrated that children and youth may benefit from expressing gratitude. In one study, children ages 11 to 14 were instructed to count their blessings daily for 2 weeks or to complete a control activity. Those children who counted their blessings reported more gratitude, optimism, and life satisfaction, and less negative affect, relative to a hassles control group (Froh et al., 2008). Similarly, another study found that children and adolescents ages 8 to 19 who were low in positive affect and wrote letters of gratitude to people in their lives showed relatively greater gratitude and positive affect immediately following the activity, as well as 2 months later (Froh et al., 2009).

Children and adolescents have also been found to benefit from a variety of other positive activities designed to raise well-being. In one study, 4th and 5th grade students were instructed either to perform three acts of kindness or to visit three places during the week (Nelson et al., 2011). Children who made the visits more social (e.g., by dropping by a friend's house) benefitted more from the visit activity than those who did not, and children high in social responsibility benefitted more from the kindness activity than those who were low. In a study of 14 to 15-year old adolescents, those who engaged in simple self-directed positive activities (i.e., visits, acts of kindness, and gratitude letters) for 6 weeks improved in well-being and maintained this improvement after a 1-month follow-up (Layous et al., 2011). Finally, another study found that adolescents who were encouraged to use their character strengths in their daily lives, to learn new strengths, and to recognize strengths in others demonstrated greater improvements in life satisfaction relative to those who were not (Proctor et al., 2011).

Although the literature is limited, these studies suggest that positive activities are beneficial for children and adolescents. However, much more work is needed. For example, research suggesting that optimism significantly contributes to adolescents' well-being (Oberle, Schonert-Reichl, & Zumbo, 2011), as well as the fact that children are often asked about future events and activities (e.g., what do you want to be when you grow up?), supports the idea that positive activities designed to promote optimism may be especially fitting for this age group. Future investigators should continue to strive to understand the underlying mechanisms involved in the effectiveness of positive activities, as well as whether some activities are more effective than others, among children and adolescents. For example, because of its social nature, the visit activity (Nelson et al., 2011) may be an appropriate fit for children at a time in their lives when they are forming friendships, learning social skills, and developing their identities. Given the numerous benefits of well-being specific to these age groups (e.g., academic achievement) (Richards & Huppert, 2011; Schmid et al., 2011; Suldo et al., 2011), understanding ways to improve the happiness of children and adolescents is an important avenue for future research.

Elderly

Just as pursuing well-being is important among young children and adolescents, it is important among older adults. Although older people have been found to be happier on average than their younger peers (e.g., Carstensen et al., 2011; Mroczek & Spiro, 2005; Williams et al., 2006), studies have indicated several critical areas of need in this population. In one investigation of elderly women, for example, older age was associated with lower levels of purpose in life, personal growth, and positive relationships, and poor health was associated with more depression and anxiety (Heidrich, 1993). The prevalence of illness, health problems, and loss of loved ones among elderly individuals and the numerous benefits of well-being for health and social relationships (Lyubomirsky, King et al., 2005) highlight the need for well-being activities designed for this age group.

Furthermore, research suggests that successful methods of pursuing happiness among the elderly may differ from those of other age groups. For example, one study queried a variety of age groups about aspects of life essential for well-being (Ryff, 1989). Although all age groups endorsed good relationships and the pursuit of enjoyable activities as important for well-being, younger adults focused more on self-knowledge, competence, and self-acceptance, whereas older adults focused more on positive coping with change (see also Carstensen, Isaacowitz, & Charles,

1999). Similarly, older adults have been found to experience less personal growth and autonomy, but more mastery, than other age groups (Ryff, 1991). Finally, another study found that elderly (ages 75 to 89) individuals' perceptions of their living situations is an important factor predicting their well-being. Participants who lived in more accessible homes, viewed their home as purposeful and meaningful, and had a greater sense of internal control reported relatively greater well-being (Oswald et al., 2007). These findings suggest that positive activities may function differently in this age group. For example, activities that target coping may be better suited for older adults, and activities that promote self-knowledge or acceptance (e.g., affirming personal values and characteristics) may be better suited for younger adults. Other successful positive activities among the elderly could promote meaningful and purposeful use of their home – for example, by designating a space for a personal hobby or interest (e.g., crafts) and encouraging meaningful engagement with that hobby. Finally, older individuals may be able to enjoy meaning and personal growth by redirecting attention to and helping a younger generation. For example, rather than focusing on personal achievements and success at the end of their careers, they may find growth and purpose by mentoring younger colleagues.

Although very few positive activity interventions have been conducted among older adults, the limited work in this area suggests that positive activities can successfully improve their well-being. In a classic study, elderly participants in a nursing home given a plant to care for and reminded of their personal choice and responsibility in their everyday lives demonstrated greater gains in well-being relative to control participants whose plants were cared for by staff members (Langer & Rodin, 1976). Furthermore, in a 14-week intervention, women ages 56 to 80 who reviewed areas of their lives (e.g., love, goals, turning points) with respect to their past, present, and future showed significant increases in psychological well-being relative to controls (Arkoff, Meredith, & Dubanoski, 2004). Future studies should continue to establish the effectiveness of positive activities, which have primarily been tested on young and middle-aged adults, to increase the well-being of older people. In addition, particular attention should be directed to determining the most effective activities for this population. For example, as individuals approach the ends of their lives, expressing gratitude for loved ones may be a better-fitting activity than envisioning a bright future.

Depressed and Anxious

Individuals suffering from depression or anxiety may derive considerable benefit from the practice of well-being-enhancing activities. Indeed, recent literature has highlighted the importance of positive activities as a possible way to alleviate depression and to encourage depressed individuals to live more fulfilling lives, beyond the point of languishing (Layous, Chancellor, Lyubomirsky, Wang, & Doraiswamy, 2011; Sin et al., 2011).

Two areas of research provide support for the effectiveness of positive activities among individuals suffering from depression. First, studies have suggested that not only do positive activities improve well-being, but they also have the capability of ameliorating depressive symptoms. For example, a recent meta-analysis found that positive psychology exercises can successfully reduce depressive symptoms among individuals with a range of symptom levels (r = .31; Sin & Lyubomirsky, 2009).

Second, positive activity intervention studies have successfully improved well-being in individuals suffering from mild depression (Seligman et al., 2005; Seligman, Rashid, & Parks, 2006). In one study, relative to controls, moderately depressed participants instructed to write and deliver a gratitude letter demonstrated gains in happiness and decreased depressive symptoms immediately afterwards and maintained those improvements at a 1-month follow-up. In the same study, participants who kept track of three good things or used their signature strengths in new ways maintained improvements in happiness and depressive symptoms, relative to those in the control group, for up to 6 months (Seligman et al., 2005). In a second intervention, patients suffering from mild-to-moderate depression performed different positive psychology exercises (i.e., using signature strengths, counting blessings, writing a gratitude letter, practicing active/constructive responding, and savoring) each week for 6 weeks. Patients reported decreased depressive symptoms for up to 1 year, relative to controls (Seligman, Rashid, Parks, 2006).

Preliminary evidence suggests that individuals suffering from depression may respond differently to varying positive activities. In one study, dysphoric individuals were instructed to write letters of gratitude to people whom they had never properly thanked. Surprisingly, the gratitude activity decreased well-being among this group (Sin et al., 2011), possibly because they felt bad about not having expressed gratitude earlier to these individuals or because the letters were challenging to compose. Another study tested the effects of expressing gratitude on

individuals with depressive personality styles (i.e., high self-criticism and high neediness). In this intervention, self-critics responded well to the gratitude exercise, but needy individuals reported decreased subsequent well-being (Sergeant & Mongrain, 2011), possibly because the exercises reminded needy individuals of their need for approval from others. These findings highlight the importance of testing different types of activities among different groups to determine which activities work best and which may actually be detrimental to well-being (cf. McNulty & Fincham, in press). Whereas gratitude activities typically improve well-being in the general population (Emmons & McCullough, 2003), it may not be advisable to recommend a gratitude activity for someone suffering from depression or dysphoria. On the other hand, researchers may be able to tailor certain types of gratitude activities for a depressed population. For example, depressed individuals may benefit from the relatively undemanding gratitude task of counting their blessings, compared to writing a gratitude letter, which requires much more effort and deliberation, as well as a frank appraisal of their close relationships.

Another study examined the effect of practicing optimism and self-compassion among individuals vulnerable to depression (i.e., those high in self-criticism and low on connectedness). Overall, both the optimism and self-compassion manipulations led to relatively greater increases in happiness and decreases in depressive symptoms. Interestingly, however, the results revealed that individuals low on connectedness benefitted more from practicing self-compassion than optimism, perhaps because this activity fulfilled their need to generate compassionate feelings toward themselves. Conversely, those high in self-criticism benefitted more from practicing optimism than self-compassion, possibly due to the ability of the optimism exercise to curtail cycles of rumination (Shapira & Mongrain, 2010). These findings further demonstrate that depressed individuals respond differently to different types of positive activities, suggesting the need for tailored interventions based on individual circumstances, symptoms, and areas of weakness.

Research suggests that positive activities may also be beneficial to individuals suffering from anxiety. In one study, patients with affective disorders (i.e., major depression, panic disorder, social phobia, generalized anxiety disorder, and obsessive-compulsive disorder) were assigned to complete well-being therapy, in which they kept a diary of the positive events in their daily lives, or to cognitive behavioral treatment (CBT). Participants in both conditions demonstrated improvements, but those who completed well-being therapy showed greater

decreases in anxiety and increases in contentment (Fava, Rafanelli, Cazzaro, Conti, & Grandi, 1998). Similarly, another study compared CBT to a combination of CBT and well-being therapy among patients with generalized anxiety disorder and found that the combination of CBT and well-being therapy led to significantly greater improvements in psychological well-being and reductions in anxiety, compared to CBT alone (Fava et al., 2005).

Given the growing rates of depression and anxiety in the United States (Kessler, Chiu, Demler, & Walters, 2005), as well as the high cost of treatment (Watkins et al., 2009; Witten, 2002), positive activities may be an easy, accessible, non-stigmatizing, and low-cost method to alleviate depression and anxiety. The research in this area is promising and suggests that positive activities can decrease depressive and anxiety symptoms and improve well-being. However, much more work is needed to fully understand how anxious, depressed, or dysphoric individuals respond to various positive activities – especially as some appear to be detrimental to their well-being.

Physically Ill

Individuals suffering from physical health problems or who have received a recent diagnosis may also have much to gain from happiness-enhancing activities. Recent research has linked cancer diagnosis to detriments in mental health, mood, and psychological well-being (Costanzo, Ryff, & Singer, 2009), suggesting a clear need for well-being interventions among patients with impending or recent serious diagnoses. Indeed, improving happiness among patients has implications not only for their psychological well-being, but for their health prognosis as well (Lyubomirsky, King, et al., 2005). A meta-analysis revealed that well-being positively impacts short-term health outcomes (r = .15), long-term health outcomes (r = .11), and disease or symptom control (r = .13) (Howell, Kern, & Lyubomirsky, 2007). Thus, although most of the data are correlational, improving the well-being of individuals suffering from health problems may not only make them feel better in general and help them cope better with their illness, but may also have salutary effects on the very physical health issues they are facing.

Cross-sectional studies of patients highlight the importance of interventions in this area. One such study found that greater uncertainty, thought intrusions, and avoidance, as well as less talking about cancer, were associated with greater depression and lower well-being among cancer survivors (Cordova, Cunningham, Carlson, & Andrykowski, 2001). Accordingly, researchers designing strategies to help improve this population's well-being may consider

activities that involve talking about the cancer diagnosis or engaging with their cancer treatment to decrease avoidance.

Studies conducted by health psychologists also provide evidence that positive activities may be beneficial for individuals suffering from brain injury (Bédard et al., 2003), breast cancer (Antoni et al., 2001), chronic fatigue (Surway, Roberts, & Silver, 2005), and rheumatoid arthritis (Zautra et al., 2008). For example, in one study, patients receiving treatment for breast cancer participated in a 10-week stress management program (Antoni et al., 2001). This program reduced the prevalence of depression, and increased benefit finding and optimism regarding the diagnosis. In particular, the intervention was most successful for women low in optimism at baseline. In another study, patients who had suffered a traumatic brain injury participated in a 12-week mindfulness-based stress reduction program at least 1 year following the injury. Participants in the treatment group demonstrated improvements in quality of life and decreases in depressive symptoms relative to control participants (Bédard et al., 2003).

The majority of interventions in this area have focused on cultivating mindfulness (Bédard et al., 2003; Surway et al., 2005; Zautra et al., 2008). However, some evidence suggests that other positive psychology-based interventions (Huffman et al., 2011) and meaning interventions (Lee, Cohen, Edgar, Laizner, & Gagnon, 2006) may be successful among this population. Given the many changes that typically occur in an individual's life following a grave diagnosis, engaging in activities that foster meaning in life may be particularly helpful in aiding a patient in coping with these changes. Indeed, one study found that a meaning-making intervention successfully improved cancer patients' self-esteem, optimism, and self-efficacy following a diagnosis (Lee et al., 2006).

Although a growing number of studies suggest that positive activities can improve the well-being of patients suffering from a variety of medical problems, much more research is needed in this area. Future investigators should continue to examine the relative effect of a variety of positive activities on patients' well-being. Finally, given the diversity of health conditions and treatment options, studies would do well to test potential moderators of intervention effectiveness among different patient groups, including illness type. For example, cancer patients may respond well to activities designed to enhance meaning in life, whereas cardiovascular disease patients may respond better to activities designed to reduce stress.

Trauma and Abuse Victims

Ameliorating the adverse outcomes following trauma and abuse is an important focus of both psychological research and clinical practice. Many people are resilient in the face of trauma (Bonanno, Galea, Bucciarelli, & Vlahov, 2006), and positive activities may be one way to bolster resilience. Support for the effectiveness of engaging in positive activities by victims of trauma and abuse come from a variety of sources. First, evidence suggests that disclosive writing about a traumatic experience leads to beneficial outcomes for health, reduces physiological markers of stress, and alleviates self-reported emotional distress, negative affect, and depression (Pennebaker, 1997). This writing paradigm has been used as a basis for several positive activities designed to improve well-being (e.g., King, 2001).

Second, forgiveness activities have been found to be effective in improving well-being among individuals impacted by trauma or abuse. In one study, women who had suffered spousal emotional abuse were assigned to a forgiveness therapy group or to a control group. Participants in the forgiveness therapy group experienced greater improvements in depression, anxiety, stress symptoms, self-esteem, forgiveness, environmental mastery, and finding meaning in suffering (Reed & Enright, 2006). Similarly, female survivors of childhood sexual trauma who participated in a forgiveness intervention demonstrated increases in forgiveness and hope, as well as decreases in anxiety and depression, relative to those who participated in a control group (Freedman & Enright, 1996).

Although the forgiveness interventions in each of these studies were administered oneon-one and more closely resemble therapy, they provide preliminary support for the use of
forgiveness activities as an effective strategy to improve well-being among this group. Likewise,
a recent meta-analysis found that forgiveness activities can effectively promote self-esteem,
positive affect, and forgiveness, as well as reduce negative affect (Lundahl, Taylor, Stevenson, &
Roberts, 2008). Future work would do well to determine the effectiveness of forgiveness
activities when they are self-administered, and hence, more convenient and accessible, and less
costly and time-consuming to practice.

Forgiveness has been associated with greater prosocial orientation, increased feelings of relatedness towards others (even to those beyond the target of the wrongdoing), and increased philanthropic behavior (Karremans, Van Lange, & Holland, 2005). These findings indicate that forgiving one's offender may be one way to generate an upward spiral towards greater well-

being and recovery from wrongdoings. However, other research suggests that individuals may not always benefit from forgiveness. For example, one study of newlywed couples found that the tendency to express forgiveness was associated with stable levels of psychological and physical aggression during the first 4 years of marriage, whereas less forgiving attitudes were associated with declines in such aggression (McNulty, 2011). Similarly, an investigation of women at a domestic violence shelter found that more forgiving women were more likely to return to their abusive partner (Gordon, Burton, & Porter, 2004). Thus, it remains important to consider the type of abuse, and whether that abuse is ongoing, before recommending a forgiveness activity. Forgiveness may be a good fit for people who are trying to move on from their trauma, who no longer have contact with their abuser, or whose targets of forgiveness have learned or are learning their lesson, but could be potentially harmful if the act of forgiveness has the result of pardoning the targets for their wrongdoing.

Activities designed to cultivate meaning after trauma may also be particularly beneficial for sufferers of trauma and abuse. Meaning in life has been positively related to well-being in the general population (Steger et al., 2008), and the ability to find meaning after trauma has been identified as one of the mechanisms by which trauma sufferers may be able to experience positive outcomes and post-traumatic growth (Helgeson, Reynolds, & Tomich, 2006; Park & Ai, 2006).

Developing positive activities to cultivate meaning in life is a new direction in positive psychology. Preliminary evidence suggests that people who focus on aspects of their lives that bring meaning (e.g., by keeping photos of these aspects) can successfully improve their well-being and boost life meaning (Steger & Merriman, 2011). Surprisingly, however, no studies have attempted to enhance life meaning among trauma victims, despite the considerable evidence supporting the benefits of posttraumatic meaning-making (e.g., Helgeson et al., 2006). Thus, researchers may want to examine how positive activities can promote meaning in life and happiness among people who have experienced trauma, and whether particular types of interventions are optimal in this population. For example, future studies could investigate whether activities such as visualizing a bright future, writing letters of gratitude, or performing acts of kindness are appropriate for individuals in this context. Envisioning an optimistic future, given past troubles, may help trauma sufferers take steps towards moving forward. In addition, writing letters of gratitude specifically to those who helped them weather a difficult time, and

helping others with their troubles, may aid them in taking the focus off of themselves and their tribulations.

Culture

There are many reasons to believe that the pursuit of happiness may function differently across cultures. Members of individualist cultures tend to emphasize independence and autonomy over the needs of the larger group, whereas those from collectivist cultures exhibit a stronger emphasis on maintaining social harmony and obligation to the group (Triandis, 1995). These cultural differences also carry over to the ways people make well-being judgments. People from individualist cultures have been found to ground their life satisfaction more in intrapersonal than interpersonal factors, whereas those from collectivist cultures do the reverse (Suh, Diener, Oishi, & Triandis, 1998). Moreover, cultural background appears to moderate the determinants of well-being – for example, self-esteem is more important to the well-being of people in individualist than in collectivist cultures (Diener & Diener, 1995). Thus, norms in collectivist cultures may be less supportive of self-expression, self-improvement, and the pursuit of individual goals. These observations and findings suggest that traditional, individually-focused happiness activities may be less effective for those belonging to collectivist cultures than to individualist cultures.

A few studies provide support for these claims. For example, in one experiment, Anglo Americans and foreign-born Asian Americans were assigned to practice optimism, gratitude or a control activity. Although all participants in the optimism and gratitude conditions demonstrated gains in well-being, these gains were larger for Anglo Americans than for Asian Americans (Boehm et al., 2011). Similarly, a study conducted with college students living in the U.S. and South Korea found that practicing acts of kindness led to greater gains in well-being in the U.S. sample than the South Korean sample (Della Porta, 2011).

Investigators should continue to examine cultural differences in response to positive activities. One possible research direction is suggested by a study that surveyed participants from 27 nations on their orientations to seeking happiness. The results revealed three clusters of happiness-seeking orientations: Those who seek happiness via pleasure and engagement (e.g., France, Germany, and Ireland); those who seek happiness via engagement and meaning (e.g., United States, South Africa, Israel, and South Korea); and those who do not endorse any of these three ways of seeking happiness (e.g., Finland, Italy, and the United Kingdom) (Park, Peterson,

& Ruch, 2009). These cultural distinctions provide a theoretical framework for testing different types of happiness activities among cultural groups. For example, studies could compare activities designed to cultivate meaning (e.g., taking pictures of and reflecting on meaningful pursuits and individuals in one's life) with activities targeted towards pleasure (e.g., engaging in activities for pure fun) among individuals in these three different clusters. This type of research is essential to better understand how individuals from different cultures respond to positive activities.

Military

Soldiers and their families must cope with a variety of unique stressors, including those involving deployment, relocation, and managing post-combat stress. To help healthy soldiers and their families cope with the adversity and challenges associated with military life, the U.S. military launched a recent initiative to focus on comprehensive soldier fitness (Casey, 2011). An important characteristic of this program involves prevention; it was specifically created to help military personnel cultivate positive emotions and build resilience and emotion regulation skills to prevent the development of mental health problems. The ability to build these skills is incredibly important. The numerous benefits of positive emotions include more flexible responses in the face of threat, better problem-solving skills, faster wound healing, increased physical health, and longer lives (Brown, Ryan, & Creswell, 2007; Lyubomirsky, King, et al., 2005; Pressman & Cohen, 2005). Thus, cultivating positive emotions is likely to be particularly beneficial in managing the many challenges facing military personnel (Algoe & Fredrickson, 2011).

Psychologists are currently empirically testing the success of various programs being implemented in the U.S. military as part of the comprehensive soldier fitness program. For example, one study examined the effect of resilience training on sergeants. This program includes many components of commonly-practiced positive activities, such as cultivating gratitude, as well as identifying and using signature strengths. Although the findings are preliminary, initial evaluations of the program were highly positive (Reivich, Seligman, & McBride, 2011), suggesting that these strategies may be an effective method to improve the well-being of military personnel.

Given the unique situation of soldiers and their families, their needs for positive activities and well-being may be very different from those of the general population. For example, they

may particularly benefit from activities designed to target stress (e.g., meditation) or build interpersonal relationships (e.g., practicing gratitude or kindness). However, research has yet to test these activities among members of the military and their families. Given the magnitude of potential benefits to be gained, such tests should be a priority for future research.

Final Thoughts and Conclusions

In sum, research on positive activities has come a long way in providing a scientific foundation for a variety of techniques that people can implement to improve their personal wellbeing. Recent studies on the mediators and moderators of activity effectiveness have also advanced the scientific understanding of how and why these activities are successful. However, much remains to be learned about the mechanisms by which positive activities "work" to make people happier. In this chapter, we were especially concerned with the question of how to apply research on happiness-increasing practices to the unique personalities, needs, and resources of specific populations. Our review of the relevant research in this area suggests that different circumstances may call for different types of positive activities, tailored to fit each specific person, situation, and time (Schwartz & Sharpe, 2010). Future studies should continue to aim to better understand the best ways to deliver positive activities to obtain the most beneficial outcomes. To borrow again from mental health research, studies should aim to answer the question: "What [activity] . . . is most effective for this individual with that specific problem and under which set of circumstances" (Paul, 1967, p.111).

References

- Algoe, S. B., & Fredrickson, B. L. (2011). Emotional fitness and the movement of affective science from lab to field. *American Psychologist*, 66, 35-42.
- Antoni, M. H., Lehman, J. M., Kilbourn, K. M., Boyers, A. E., Culver, J. L., Alferi, S. M., . . . & Carver, C. S. (2001). Cognitive-behavioral stress management intervention decreases the prevalence of depression and enhances benefit finding among women under treatment for early-stage breast cancer. *Health Psychology*, 20, 20-32.
- Arkoff, A., Meredith, G. M., & Dubanoski, J. P. (2004). Gains in well-being achieved through retrospective-proactive life review by independent older women. *Journal of Humanistic Psychology*, 44, 204-214.
- Atkins, M. S., & Frazier, S. L. (2011). Expanding the toolkit or changing the paradigm: Are we ready for a public health approach to mental health? *Perspectives on Psychological Science*, *6*, 483-487.
- Bédard, M., Felteau, M., Mazmanian, D., Fedyk, K., Klein, R., Richardson, J., . . ., & Minthorn-Biggs, M.-B. (2003). Pilot evaluation of a mindfulness-based intervention to improve quality of life among individuals who sustained traumatic brain injuries. *Disability and Rehabilitation*, 25, 722-731.
- Bergsma, A. (2008). Do self-help books help? Journal of Happiness Studies, 9, 341-360.
- Boehm, J. K., & Lyubomirsky, S. (2011). [Feelings of autonomy and relatedness mediate the effectiveness of positive activities on well-being]. Unpublished raw data.
- Boehm, J. K., Lyubomirsky, S., & Sheldon, K. M. (2011). A longitudinal experimental study comparing the effectiveness of happiness-enhancing strategies in Anglo Americans and Asian Americans. *Cognition and Emotion*, *25*, 1263-1272.
- Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2006). Psychological resilience after disaster: New York City in the aftermath of the September 11th terrorist attack. *Psychological Science*, *17*, 181-186.
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, *18*, 211-237.
- Busseri, M. A., & Sadava, S. W. (2011). A review of the tripartite structure of subjective well-being: Implications for conceptualization, operationalization, analysis, and synthesis. *Personality and Social Psychology Review, 15,* 290-314.

Carstensen, L. L., Turan, B., Scheibe, S., Ram, N., Ersner-Hershfield, H., Samanez-Larkin, G. R., . . . & Nesselroade, J. R. (2011). Emotional experience improves with age: Evidence based on over 10 years of experience sampling. *Psychology and Aging*, *26*, 21-33.

- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: a theory of socioemotional selectivity. *American Psychologist*, *54*, 165–181.
- Casey, G. W. (2011). Comprehensive soldier fitness: A vision for psychological resilience in the U.S. Army. *American Psychologist*, *66*, 1-3.
- Cordova, M. J., Cunningham, L. L. C., Carlson, C. R., & Andrykowski, M. A. (2001). Social constraints, cognitive processing, and adjustment to breast cancer. *Journal of Consulting and Clinical Psychology*, 69, 706-711.
- Costanzo, E. S., Ryff, C. D., & Singer, B. H. (2009). Psychosocial adjustment among cancer survivors: Findings from a national survey of health and well-being. *Health Psychology*, 28, 147-156.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination theory of behavior. *Psychological Inquiry*, 11, 227-268.
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, *49*, 182-185.
- Della Porta, M. D., & Lyubomirsky, S. (2011). [Enhancing the effects of happiness-boosting activities: The role of autonomy support in an experimental longitudinal intervention]. Unpublished raw data.
- Dickerhoof, R. (2007). Expressing optimism and gratitude: A longitudinal investigation of cognitive strategies to increase well-being. *Dissertation Abstracts International: Section B. Sciences and Engineering*, 68, 4174.
- Diener, E. (1984). Subjective well-being. Psychological Bulletin, 95, 542-575.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*, 34-43.
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology, 68,* 653-663.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E., Diener, & N. Schwarz (Eds.). *Well-being: The foundations of hedonic psychology* (pp. 213-229). New York: Russell Sage Foundation.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*, 276-302.

- 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, 377-389.
- Fava, G., A., Rafanelli, C., Cazzaro, M., Conti, S., & Grandi, S. (1998). Well-being therapy: A novel psychotherapeutic approach for residual symptoms of affective disorders. *Psychological Medicine*, *28*, 475-480.
- Fava, G. A., Ruini, C., Rafanelli, C., Finos, L., Salmaso, L., Mangelli, L., & Sirigatti, S. (2005). Well-being therapy of generalized anxiety disorder. *Psychotherapy and Psychosomatics*, 74, 26-30.
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E., Diener, & N. Schwarz (Eds.), *Well-Being: The foundations of hedonic psychology* (pp. 302-329). New York: Russell Sage Foundation.
- Fredrickson, B., L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, *13*, 172-175.
- Freedman, S. R., & Enright, R. D. (1996). Forgiveness as an intervention goal with incest survivors. *Journal of Consulting and Clinical Psychology*, *64*, 983-992.
- Froh, J. H., Huebner, E. S., Youssef, A. J., & Conte, V. (2011). Acknowledging and appreciating the full spectrum of the human condition: School psychology's (limited) focus on positive psychological functioning. *Psychology in the Schools, 48,* 110-123.
- Froh, J. J., Kashdan, T. B., Ozimkowski, K. M., & Miller, N. (2009). Who benefits the most from a gratitude intervention in children and adolescents? Examining positive affect as a moderator. *The Journal of Positive Psychology, 4*, 408-422.
- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology*, 46, 213-233.
- Fujita, F., & Diener, E. (2005). Life satisfaction set point: Stability and change. *Journal of Personality and Social Psychology*, 88, 158-164.

Gilham, J. E., Reivich, K. J., Jaycox, L. H., & Seligman, M. E. P. (1995). Prevention of depressive symptoms in schoolchildren: Two-year follow-up. *Psychological Science*, 6, 343-351.

- Gordon, K. C., Burton, S., & Porter, L. (2004). Predicting the intentions of women in domestic violence shelters to return to partners: Does forgiveness play a role? *Journal of Family Psychology*, 18, 331-338.
- Gruber, J., Mauss, I. B., & Tamir, M. (2011). A dark side of happiness? How, when, and why happiness is not always good. *Perspectives on Psychological Science*, *6*, 222-233.
- Heidrich, S. M. (1993). The relationship between physical health and psychological well-being in elderly women: A developmental perspective. *Research in Nursing and Health, 16,* 123-130.
- Helgeson, V. S., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth. *Journal of Consulting and Clinical Psychology*, 74, 797-816.
- Helson, R., Jones, C., & Kwan, V. S. Y. (2002). Personality can change over 40 years of adulthood: Hierarchical linear modeling analyses of two longitudinal samples. *Journal of Personality and Social Psychology*, 83, 752-766.
- Howell, R. T., Kern, M. L., & Lyubomirsky, S. (2007). Health benefits: Meta-analytically determining the impact of well-being on objective health outcomes. *Health Psychology Review*, 1, 83-136.
- Huffman, J. C., Mastromauro, C. A., Boehm, J. K., Seabrook, R., Fricchione, G. L., Denninger, J. W., & Lyubomirsky, S. (2011). Development of a positive psychology intervention for patients with acute cardiovascular disease. *Heart International*, 6, 47-54.
- Karremans, J. C., Van Lange, P. A. M., & Holland, R. W. (2005). Forgiveness and its associations with prosocial thinking, feeling, and doing beyond the relationship with the offender. *Personality and Social Psychology Bulletin, 31,* 1315-1326.
- Kashdan, T. B., Biswas-Diener, R., & King, L. A. (2008). Reconsidering happiness: The costs of distinguishing between hedonics and eudaimonia. *The Journal of Positive Psychology, 3*, 219-233.
- Kashdan, T. B., & Steger, M. F. (2011). Challenges, pitfalls, and aspirations for positive psychology. In K. M. Sheldon, T. B., Kashdan, & M. F. Steger (Eds.) *Designing positive psychology: Taking stock and moving forward.* New York: Oxford University Press.

Kazdin, A. E., & Blase, S. L. (2011). Interventions and models of their delivery to reduce the burden of mental illness: Reply to commentaries. *Perspectives on Psychological Science*, *6*, 507-510.

- Kesebir, P., & Diener, E. (2008). In pursuit of happiness: empirical answers to philosophical questions. *Perspectives on Psychological Science*, *3*, 117-125.
- Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, *62*, 617-627.
- King, L. A. (2001). The health benefits of writing about life goals. *Personality and Social Psychology Bulletin*, *27*, 798-807.
- Langer, E. J., & Rodin, J. (1976). The effects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. *Journal of Personality and Social Psychology*, 34, 191-198.
- Layous, K., Chancellor, J., Lyubomirsky, S., Wang, L., & Doraiswamy, P. M. (2011). Delivering happiness: Translating positive psychology intervention research for treating major and minor depressive disorders. *The Journal of Alternative and Complementary Medicine*, 17, 675-683.
- Layous, K., Nelson, S. K., Jacobs Bao, K., Plomin, R., Haworth, C., & Lyubomirsky, S. (2011).

 Are parents more accurate at gauging the happiness of their adolescent sons or daughters? Manuscript in preparation.
- Layous, K., Nelson, S. K., & Lyubomirsky, S. (2011). What is the optimal way to deliver a positive activity intervention? The case of writing about one's best possible selves.

 Manuscript submitted for publication.
- Lee, V., Cohen, S. R., Edgar, L., Laizner, A. M., Gagnon, A. J. (2006). Meaning-making intervention during breast or colorectal cancer treatment improves self-esteem, optimism, and self-efficacy. *Social Science and Medicine*, *62*, 3133-3145.
- Lundahl, B. W., Taylor, M. J., Stevenson, R., & Roberts, K. D. (2008). Process-based forgiveness intervention: A meta-analytic review. *Research on Social Work Practice*, *18*, 465-478.
- Lykken, D. & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7, 186-189.

Lyubomirsky, S. (2008). *The how of happiness: A scientific approach to getting the life you want.* New York: Penguin Press.

- Lyubomirsky, S. (2011). Hedonic adaptation to positive and negative experiences. In S. Folkman (Ed.), *Oxford handbook of stress, health, and coping*. (pp. 200-224). New York: Oxford University Press.
- Lyubomirsky, S., Dickerhoof, R., Boehm, J. K., & Sheldon, K. M. (2011). Becoming happier takes both a will and a proper way: An experimental longitudinal intervention to boost well-being. *Emotion*, *11*, 391-402.
- Lyubomirsky, S., King, L. A., & Diener, E. (2005). The benefits of frequent positive affect. *Psychological Bulletin*, *131*, 803-855.
- Lyubomirsky, S., Sheldon, K., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, *9*, 111-131.
- Mauss, I. B., Tamir, M., Anderson, C. L., & Savino, N. S. (2011). Can seeking happiness make people unhappy? Paradoxical effects of valuing happiness. *Emotion*, *11*, 807-815.
- McCrae, R. R. & Costa, P. T. (1990). Personality in adulthood. New York: Guilford Press.
- McNulty, J. K. (2011). The dark side of forgiveness: The tendency to forgive predicts continued psychological and physical aggression in marriage. *Personality and Social Psychology Bulletin*, *37*, 770-783.
- McNulty, J. K., & Fincham, F. D. (in press). Beyond positive psychology? Toward a contextual view of psychological processes and well-being. *American Psychologist*.
- Mroczek, D. K., & Spiro, A., III. (2005). Change in life satisfaction during adulthood: Findings from the Veterans Affairs Normative Aging Study. *Journal of Personality and Social Psychology*, 88, 189-202.
- Nelson, S. K., Layous, K., Oberle, E., Lyubomirsky, S., & Schonert-Reichl, K. A. (2011). Counting kindness: An acts of kindness intervention among school-age children. Manuscript in preparation.
- Nes, R. B., Roysamb, E., Tambs, K., Harris, J. R., & Reichborn-Kjennerud, T. (2006). Subjective well-being: Genetic and environmental contributions to stability and change. *Psychological Medicine*, *36*, 1033-1042.

Niemic, C. P., Ryan, R. M., & Deci, E. L. (2009). The path taken: Consequences of attaining intrinsic and extrinsic aspirations in post-college life. *Journal of Research in Personality*, 43, 291-306.

- Oberle, E., Schonert-Reichl, K. A., & Zumbo, B. D. (2011). Life satisfaction in early adolescence: Personal, neighborhood, school, family, and peer influences. *Journal of Youth and Adolescence*, 40, 889-901.
- Oswald, F., Wahl, H. W., Schilling, O., Nygren, C., Fange, A., Sixsmith, A., . . . & Iwarsson, S. (2007). Relationships between housing and healthy aging in very old age. *The Gerontologist*, 47, 96-107.
- Park, C. L., & Ai, A. L. (2006). Meaning making and growth: New directions for research on survivors of trauma. *Journal of Loss and Trauma*, 11, 389-407.
- Park, N., Peterson, C., & Ruch, W. (2009). Orientations to happiness and life satisfaction in twenty-seven nations. *The Journal of Positive Psychology*, *4*, 273-279.
- Parks, A. C., Della Porta, M. D., Pierce, R. S., Zilca, R., & Lyubomirsky, S. (in press). Pursuing happiness in everyday life: The characteristics and behaviors of online happiness seekers. *Emotion*.
- Paul, G. L. (1967). Strategy of outcome research in psychotherapy. *Journal of Consulting Psychology*, *31*, 109-118.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, *8*, 162-166.
- Pressman, S. D., & Cohen, S. (2005). Does positive affect influence health? *Psychological Bulletin*, 131, 925-971.
- Proctor, C., Tsukayama, E., Wood, A. M., Maltby, J., Eades, J. F., & Linley, P. A. (2011). Strengths gym: The impact of a character strengths-based intervention on the life satisfaction and well-being of adolescents. *The Journal of Positive Psychology*, *6*, 377-388.
- Reed, G. L., & Enright, R. D. (2006). The effects of forgiveness therapy on depression, anxiety, and posttraumatic stress for women after spousal emotional abuse. *Journal of Consulting and Clinical Psychology*, 74, 920-929.
- Reivich, K. J., Seligman, M. E. P., & McBride, S. (2011). Master resilience training in the U.S. Army. *American Psychologist*, *66*, 25-34.

Richards, M., & Huppert, F. A. (2011). Do positive children become positive adults? Evidence from a longitudinal birth cohort study. *The Journal of Positive Psychology, 6,* 75-87.

- Roberts, B., W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin*, 132, 1-25.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*, 141-166.
- Ryan, R. M., & Deci, E. L. (2008). Self-determination theory and the role of basic psychological needs in personality and the organization of behavior. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality psychology: Theory and research* (3rd ed., pp. 654-678). New York: Guilford Press.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*, 1069-1081.
- Ryff, C. D. (1991). Possible selves in adulthood and old age: A tale of shifting horizons. *Psychology and Aging, 6,* 286-295.
- Schmid, K. L., Phelps, E., Kiely, M. K., Napolitano, C. M., Boyd, M. J., & Lerner, R. M. (2011). The role of adolescents' hopeful futures in predicting positive and negative developmental trajectories: Findings from the 4-H study of positive youth development. *The Journal of Positive Psychology*, *6*, 45-56.
- Schueller, S. M. (2011). To each his own well-being boosting intervention: Using preference to guide selection. *The Journal of Positive Psychology, 6,* 300-313.
- Schwartz, B., & Sharpe, K. (2010). *Practical wisdom: The right way to do the right thing*. New York: Riverhead.
- Seligman, M. E. P., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist*, 61, 774-788.
- Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *Personality and Individual Differences*, 49, 368-373.
- Sergeant, S., & Mongrain, M. (2011). Are positive psychology exercises helpful for people with depressive personality styles? *The Journal of Positive Psychology*, *6*, 260-272.

Shapira, L. B., & Mongrian, M. (2010). The benefits of self-compassion and optimism exercises for individuals vulnerable to depression. *The Journal of Positive Psychology*, *5*, 377-389.

- Sheldon, K. M. (2004). *Optimal human being: An integrated multi-level perspective*. Mahwah, NJ: Erlbaum.
- Sheldon, K. M., Boehm, J. K., & Lyubomirsky, S. (in press). Variety is the spice of happiness: The hedonic adaptation prevention (HAP) model. In I. Boniwell & S. David (Eds.), *Oxford handbook of happiness*. Oxford: Oxford University Press.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need-satisfaction, and longitudinal well-being: The Self-Concordance Model. *Journal of Personality and Social Psychology*, 76, 482-497.
- Sheldon, K. M., & Lyubomirsky, S. (2006a). Achieving sustainable increases in happiness: Change your actions, not your circumstances. *Journal of Happiness Studies*, 7, 55-86.
- Sheldon, K. M., & Lyubomirsky, S. (2006b). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves. *The Journal of Positive Psychology, 1,* 73-82.
- Shin, N., Vaughn, B. E., Akers, V., Kim, M., Stevens, S., Krzysik, L., . . . & Korth, B. (2011). Are happy children socially successful? Testing a central premise of positive psychology in a sample of preschool children. *The Journal of Positive Psychology*, *6*, 355-367.
- Shoham, V., & Insel, T. R. (2011). Rebooting for whom? Portfolios, technology, and personalized intervention. *Perspectives on Psychological Science*, *6*, 478-482.
- 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: In Session*, 65, 467-487.
- Steger, M. F. (2009). Meaning in life. In S. J. Lopez (Ed.), *Oxford handbook of positive* psychology (2nd ed., pp. 679 687). Oxford: Oxford University Press.
- Steger, M. F., & Kashdan, T. B. (2007). Stability and specificity of meaning in life and life satisfaction over one year. *Journal of Happiness Studies*, *8*, 161-179.
- Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning. *Journal of Research in Personality*, 42, 660-678.

Steger, M. F., & Merriman, L. (2011). *Through the windows of the soul: Using photography to enhance meaning in life.* Manuscript in preparation.

- Suh, E. M., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, 74, 482-493.
- Suldo, S., Thalji, A., & Ferron, J. (2011). Longitudinal academic outcomes predicted by early adolescents' subjective well-being, psychopathology, and mental health status yielded from a dual factor model. *The Journal of Positive Psychology*, *6*, 17-30.
- Surway, C., Roberts, J., & Silver, A. (2005). The effect of mindfulness training on mood and measures of fatigue, activity, and quality of life in patients with chronic fatigue syndrome on a hospital waiting list: A series of exploratory studies. *Behavioural and Cognitive Psychotherapy*, 33, 103-109.
- Tkach, C. T. (2006). Unlocking the treasury of human kindness: Enduring improvements in mood, happiness, and self-evaluations. *Dissertation Abstracts International: Section B. Sciences and Engineering*, 67, 603.
- Triandis, H. C. (1995). Individualism and collectivism. Boulder, CO: Westview Press.
- Walsh, R. (2011). Lifestyle and mental health. American Psychologist, 66, 579-592.
- Watkins, K. E., Burnam, M. A., Orlando, M., Escarce, J. J., Huskamp, H. A., & Goldman, H. H. (2009). The health value and cost of care for major depression. *Value in Health*, *12*, 65-72.
- Williams, L. M., Brown, K. J., Palmer, D., Liddell, B. J., Kemp, A. H., Olivieri, G., Peduto, A., & Gordon, E. (2006). The mellow years? Neural basis of improving emotional stability over age. *The Journal of Neuroscience*, *26*, 6422-6430.
- Witten, H.-U. (2002). Generalized Anxiety Disorder: Prevalence, burden, and cost to society. *Depression and Anxiety, 16,* 162-171.
- Zautra, A. J., Davis, M. C., Reich, J. W., Nicassario, P., Tennen, H., Finan, P., . . . , & Irwin, M.
 R. (2008). Comparison of cognitive behavioral and mindfulness meditation interventions on adaptation to rheumatoid arthritis for patients with and without history of recurrent depression. *Journal of Consulting and Clinical Psychology*, 76, 408-421.