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Positive Activity Interventions Targeted to Improve Depressive Symptoms

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Major depressive disorder (MDD) is characterized by depressed mood and/or loss of interest or pleasure in daily activities, as well as the presence of several additional symptoms nearly every day for at least 2 weeks (e.g., feelings of worthlessness, fatigue, difficulty concentrating, psychomotor agitation or retardation, sleep disturbances, changes in appetite or weight, suicidal ideation; American Psychiatric Association, 2013). These changes in mood, thoughts, and behaviors can impair an individual's ability to function at work or school, in their social relationships, and in other important life domains. In fact, MDD is among the leading causes of disability worldwide (Global Burden of Disease Study, 2016). The World Mental Health Surveys, conducted by the World Health Organization in 24 countries, found that 4.7% of respondents had MDD in the past 12 months and 11.2% had MDD at some point in their lives (Kessler et al., 2015). In 2017, 7.1% of adults in the United States aged 18 and older (17.3 million adults) had at least one major depressive episode in the previous year (Substance Abuse and Mental Health Services Administration, 2018). Moreover, an estimated 20% of U.S. adults reported at least mild depressive symptoms (Shim, Baltrus, Ye, & Rust, 2011). The high prevalence of clinical depression, in addition to subclinical levels of depressive symptoms, underscores the need for innovative, accessible, and effective strategies for treating depression.

Traditionally, psychologists have equated mental health with the absence of mental illness. A shift in mental health practice and research began to unfold in the final years of the 20th century, when the field of positive psychology emerged to unite disparate theory and knowledge on positive functioning for the advancement of *positive* mental health (Seligman, Steen, Park, & Peterson, 2005). Increasingly, psychological well-being is now understood as both the absence of mental illness and the presence of positive psychological resources, such as positive affect and satisfaction with one's life (Diener, 1984); autonomy, competence, relatedness (Ryan & Deci,

2001); and self-acceptance, purpose, and personal growth (Ryff, 1989). Over the past two decades, the scientific study of well-being has expanded beyond the field of psychology to incorporate perspectives from a variety of disciplines, including education, business, computer science, neuroscience, and behavioral medicine.

In this chapter, we will describe the theoretical rationale and empirical evidence for *positive activity interventions* (PAIs) that are targeted to alleviate symptoms of depression. PAIs are simple behavioral and cognitive activities—such as expressing gratitude, performing acts of kindness, and practicing optimism—that have been found to increase well-being (e.g., happiness, life satisfaction) and decrease depressive symptoms by promoting positive thoughts, feelings, and behaviors (Lyubomirsky & Layous, 2013; Sin & Lyubomirsky, 2009). Due to their relative simplicity, efficacy, cost-effectiveness, and flexible modes of delivery (e.g., self-administered or delivery in group-based or individual therapy), PAIs could complement traditional pharmacological and psychotherapy treatments for depression.

A Need for Novel Treatments for Depression

Depression is profoundly debilitating for individuals, families, and society, costing the U.S. hundreds of billions of dollars each year in workplace costs, medical services, and added economic burden from physical and psychiatric comorbidities (e.g., Greenberg, Fournier, Sisitsky, Pike, & Kessler, 2015). However, current psychotherapy and pharmacological treatments are not always effective for alleviating depressive symptoms. Among people in treatment for MDD, 21% to 35% of individuals experience a recurrent depressive episode; similarly, an estimated 12% to 20% of individuals who undergo MDD treatment are considered treatment-resistant (Hardeveld, Spijker, De Graaf, Nolen, & Beekman, 2010; Mrazek, Hornberger, Altar, & Degtiar, 2014). Despite a variety of empirically-supported treatments for

depression, why do a startling number of people continue to suffer from this incapacitating condition?

We suggest two possible explanations. First, over two-thirds of U.S. adults who screen positive for depression do not receive treatment (Olfson, Blanco, & Marcus, 2016). Barriers to depression care include lack of trained providers and integrated mental health services, lack of financial and related resources (e.g., transportation), low motivation, and stigma (Marcus, Yasamy, van Ommeren, Chisholm, & Saxena, 2012; Mohr et al., 2010). One promising approach is to offer Web- and mobile-based programs such as computerized cognitive-behavioral therapy (CBT), either with or without the guidance of a clinician (Schueller, Muñoz, & Mohr, 2013). Computer-based treatments for depression—such as an 11-week therapist-guided web-based CBT for mild-to-moderate depression (Ruwaard et al., 2009)—are effective for alleviating depressive symptoms (Andersson & Cuijpers, 2009; Richards & Richardson, 2012). Adherence to therapist-guided Web-based depression treatments may be comparable to that of face-to-face CBT (Van Ballegooijen et al., 2014). Although self-help programs and alternative options should not take the place of professional, individualized treatment, especially in cases of moderate or severe depression, they may nevertheless be better than no treatment at all.

A second possible reason why many people continue to suffer from depression is that established treatments are not effective for everyone. In fact, fewer than half of patients who receive CBT—arguably one of the most effective and widely researched depression treatments—will completely recover from depression (e.g. Elkin et al., 1989). Perhaps the therapeutic techniques used to treat the acute phase of depression are not as helpful for preventing relapses or for eliminating residual symptoms (Fava, Rafanelli, Cazzaro, Conti, & Grandi, 1998), or CBT may fail to provide a good “fit” with some clients’ needs, preferences, or resources. Furthermore,

meta-analyses of antidepressant medications have reported only modest benefits of antidepressants over placebo, with efficacy reaching clinical significance only for patients in the upper end of the very severely depressed category (Kirsch et al., 2008). In sum, novel treatment approaches for depression should be accessible, efficacious, well-tolerated, and customizable to the individual's needs, and should promote the development of psychosocial resources to protect against relapse.

Why Use Positive Psychology to Treat Depression?

Beyond simply feeling good, positive emotions can foster successful outcomes in a variety of life domains, including relatively better job performance, more creativity, greater marital satisfaction, and enhanced social relationships (Lyubomirsky, King, & Diener, 2005). Positive emotions also play important roles in coping with significant and enduring stress. Folkman (1997) observed that positive emotions co-occur with negative psychological states in the context of severe stress (e.g., among partners of men with HIV throughout caregiving and bereavement). According to Folkman's Revised Stress and Coping Theory, individuals engage in meaning-based processes to cope with stress—including using positive reappraisal, applying problem-focused coping, and infusing ordinary events with positive meaning—that generate positive emotions, which in turn, sustain renewed problem- and emotion-focused coping efforts when managing chronic stressors (Folkman, 2008; Folkman & Moskowitz, 2000). These benefits of positive emotions may be especially relevant to those suffering from depression, as positive emotions have been shown to speed recovery from the cardiovascular effects of negative emotions (Fredrickson & Levenson, 1998; Tugade, 2004), predict lower levels of inflammation (Sin, Graham-Engeland, Ong, & Almeida, 2015), improve adaptive coping skills (Burns et al.,

2008; Fredrickson & Joiner, 2002; Gloria & Steinhardt, 2016), and buffer against relapses (Fava & Ruini, 2003).

Even momentary positive feelings can, over time, accumulate to produce lasting resources. According to Fredrickson's (2001, 2013) broaden-and-build theory, positive emotions broaden thinking and attention, which can spur novel ideas and actions (e.g., the urge to play and explore). Broadened mindsets, in turn, can lead to the building of long-term personal resources, including social, psychological, intellectual, and physical skills and reserves. Indeed, among individuals with depression, relatively higher levels of positive affect are associated with less severe depression and a greater likelihood of recovery (Kasch, Rottenberg, Arnow, & Gotlib, 2002). In contrast to the narrowing of attention and behavioral inhibition characteristic of negative emotional states, positive emotions are thought to trigger upward spirals toward greater psychological well-being (Fredrickson, 2013; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008).

Enhancing Well-Being with Positive Activity Interventions

Despite historical skepticism regarding the potential for durable well-being shifts (Lyubomirsky, Sheldon, Schkade, 2005), a growing number of studies have shown that well-being can be boosted by engaging in deliberate, effortful activities and exercises. These activities include (but are not limited to) writing letters of gratitude (Boehm, Lyubomirsky, & Sheldon, 2011; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011), counting one's blessings (Chancellor, Margolis, Jacobs Bao, & Lyubomirsky, 2018; Dunn, Aknin, & Norton, 2008; Emmons & McCullough, 2003; Froh, Sefick, & Emmons, 2008; Nelson, Layous, Cole, & Lyubomirsky, 2016; Peters, Flink, Boersma, & Linton, 2010), practicing optimism (Sheldon & Lyubomirsky, 2006), performing acts of kindness (Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006), using one's signature strengths (Seligman et al., 2005), affirming one's most

important values (Nelson, Fuller, Choi, & Lyubomirsky, 2014) and meditating on positive feelings toward oneself and others (Fredrickson et al., 2008; Neff, 2013). These PAI exercises have been found to promote positive feelings, positive thoughts, and/or positive behaviors, rather than directly aiming to fix any negatives.

A decade ago, we published a meta-analysis of 51 studies that had been conducted to date on PAIs, including gratitude, kindness, and mindfulness interventions. The meta-analysis revealed that PAIs were effective for enhancing well-being and ameliorating depressive symptoms compared to the control groups (Sin & Lyubomirsky, 2009). These effects were medium-sized in magnitude (mean r effect size = .29 for well-being, mean $r = .31$ for depression), which was impressive given that many of these interventions were self-administered positive activities rather than psychotherapy. Bolier and colleagues (2013) conducted an updated meta-analysis of 39 randomized controlled studies of PAIs and found a similar pattern of results, albeit with smaller aggregated effect sizes of Cohen's $d = 0.34$ for subjective well-being, $d = 0.20$ for psychological well-being, and $d = 0.23$ for depression. These effects are comparable to the effect size of $d = 0.25$ for Internet-based and other computerized treatments for depression without therapist support (Andersson & Cuijpers, 2009). In addition to their accessibility and efficacy for ameliorating depressive symptoms, PAIs have the added benefit of fostering aspects of positive well-being that are generally not targeted in standard psychological treatments for depression.

Positive Activity Interventions for Nondepressed Individuals

Most of the research on PAIs has been conducted in nondepressed, nonclinical samples. One of the first research investigations to test the possibility of boosting happiness via intentional positive activities was conducted by Fordyce (1977, 1983). In a series of classroom-based

studies, Fordyce taught his students to modify their behaviors and attitudes to mimic those of very happy people. Students assigned to practice these techniques (e.g., strengthen close relationships, develop optimistic thinking, and become involved in meaningful work) every day for several weeks experienced greater boosts in well-being and larger declines in depressive symptoms than did students in the comparison group.

More recently, researchers have focused on testing the impact of specific positive activities, including performing kind acts, cultivating gratitude, building optimism, practicing meditation, and promoting forgiveness and hope. Furthermore, multi-component interventions have been developed that combine empirically-supported PAI activities.

Kindness

An association exists between kindness and happiness, such that happy people tend to engage in more prosocial behaviors (Lyubomirsky, King, & Diener, 2005). Otake (2006) found that people who subjectively rated themselves higher on happiness tended to be more attuned to kindness, more likely to behave in kind ways, and reported a stronger desire to be kind. Moreover, these researchers found that people could increase their happiness by simply “counting kindness” over the course of a week—that is, keeping track of their own kind behavior towards other people. Those who reported a greater number of kind behaviors experienced the largest increases in happiness.

To experimentally test whether performing a kind act would lead to an increase in happiness, Dunn, Aknin, and Norton (2008) gave participants either \$5 or \$20 and instructed them to spend the money on themselves or on others by the end of the day. Participants who spent the money on others—typical purchases included donations to the homeless, toys for siblings, and meals for friends—reported feeling greater happiness than those who spent the

money on themselves. Interestingly, the amount of money spent did not matter—participants who spent \$5 on others felt just as good as those who spent \$20.

Extending these findings, in a recent study, employees at a large beverage company were assigned to perform acts of kindness for coworkers, like buying a coffee or offering positive feedback (Chancellor et al., 2018). Participants experienced increases in well-being, as well as boosts in satisfaction with life and work, relative to controls. Notably, this intervention led the *recipients* of the kindness to subsequently report paying the kindness back and paying it forward, suggesting that a kindness intervention could strengthen relationships and general sense of connection in the workplace and beyond.

However, when assessing the well-being benefits of kind acts, it is important to consider when and how they are performed. Lyubomirsky and colleagues (2005) demonstrated that the timing of kind acts matters—particularly if the acts are small. In their 6-week study, individuals who performed five kind acts (e.g., cooking dinner for others, babysitting a sibling) all in a single day showed an increase in well-being, whereas individuals whose five kind acts were spread over a week were no happier than the control group. Because many of these kind acts were small, spreading them throughout the week may have diminished their salience.

These findings suggest that the pursuit of happiness need not be a self-focused or self-absorbed endeavor. Indeed, doing kind acts for others has been shown to improve flourishing more so than doing kind acts for oneself (Nelson et al., 2016). Furthermore, the benefits of practicing kindness appear to extend beyond well-being to boost peer-acceptance (Layous, Nelson, Oberle, Schonert-Reichl, & Lyubomirsky, 2012) and even immune profiles (Nelson-Coffey, Fritz, Lyubomirsky, & Cole, 2017). By helping others, people are likely to feel more confident in their abilities to enact change, build stronger relationships, and trigger an upward

spiral of positive emotions and positive interpersonal exchanges (Lyubomirsky et al., 2005; Otake et al., 2006).

Gratitude

Not surprisingly, the cultivation of gratitude—a cognitive construct closely related to kindness—has also been found to promote well-being. The intentional practice of attending to, savoring, and being thankful for one’s fortunate circumstances can counteract the effects of hedonic adaptation, by which an individual gradually “takes something for granted.” Grateful thinking also can be an effective coping strategy during difficult times, when the ability to derive positive meaning from negative events gains special significance.

In a series of pioneering studies, Emmons and McCullough (2003) directed participants to “count their blessings” by listing five things for which they were grateful. (Examples included “the generosity of friends,” “to God for giving me determination,” and “for wonderful parents.”) Participants were assigned to engage in this self-guided activity weekly for 10 weeks or daily for 2 to 3 weeks. Relative to those in the comparison groups, individuals in the gratitude condition reported greater psychological well-being, fewer physical symptoms, and improvements in health behaviors. Similarly, Lyubomirsky and her colleagues (2005) showed that the cultivation of grateful thinking in undergraduates across a 6-week period can increase well-being. However, the frequency of the activity was found to be a moderating variable, such that individuals who counted blessings once per week became happier, but not those who counted blessings three times per week. It is likely that over-practicing any one positive activity may weaken its freshness and meaning.

Gratitude interventions have been shown to be effective across a variety of settings and age groups. For example, middle school students (average 12 years old) who listed their

blessings over the course of 10 days showed increases in well-being both immediately after and 3 weeks after the intervention (Froh et al., 2008). Relative to controls, high school students who wrote gratitude letters over the course of 4 weeks were buffered from the usual declines in life satisfaction over the semester, showed higher motivation to improve (Armenta, Fritz, Walsh, & Lyubomirsky, 2019), and engaged in healthier eating (Fritz, Armenta, Walsh, & Lyubomirsky, 2019). Finally, employees of a Japanese engineering company who wrote about three “good things” each week at work became happier and more physically active than those who wrote about three tasks that they accomplished (Chancellor, Layous, & Lyubomirsky, 2015).

Optimism

A simple yet powerful way to enhance positive mood is by visualizing one’s “best possible selves” in the future. In a pioneering study, participants were instructed to “imagine that everything has gone as well as it possibly could” and to write about it for 20 minutes per day for four consecutive days (King, 2001). These individuals experienced a greater boost in positive mood than those who engaged in a neutral activity. Furthermore, this optimism exercise had remarkable health benefits—individuals who wrote about their best possible selves had relatively less illness 5 months later. Even more impressive are findings from a follow-up study, which found similar benefits for an analogous intervention that involved only 2 minutes of writing on two consecutive days (Burton & King, 2008).

In a 4-week study, participants who imagined and wrote about their best possible selves witnessed an immediate boost in positive affect compared to those in the control group (Sheldon & Lyubomirsky, 2006). This boost was sustained over the 4-week period, perhaps because participants felt relatively more self-concordant motivation (or intrinsic interest) for this activity and, in turn, practiced it more frequently. Similar results were found by Boehm and colleagues

(2011), in which community-dwelling adults wrote about their best possible selves for 10 minutes a week over the course of 6 weeks; notably, the intervention led to improvements in well-being that persisted up to 6 months after the intervention had ended. In a recent meta-analysis, researchers sought to evaluate the efficacy of 29 randomized controlled interventions intended to increase optimism. The aggregated effect size (Hedge's $g = 0.42$) indicates that the interventions were efficacious for producing increases in optimism (Malouff & Schutte, 2017).

Meditation

Mindfulness meditation involves intentional, non-judgmental awareness and acceptance of the present moment (Kabat-Zinn, 2013). Interventions rooted in mindfulness (such as mindfulness-based stress reduction and mindfulness-based cognitive therapy) have been shown to improve physical and psychological well-being in patients with chronic fatigue syndrome (Surawy, Roberts & Silver, 2005), fibromyalgia (Grossman, Tiefenthaler-Gilmer, Raysz, & Kesper, 2007), rheumatoid arthritis (Zautra, 2008), traumatic brain injury (Bédard et al., 2003) and other chronic mental and physical health conditions (see Grossman, Niemann, Schmidt, & Walach, 2004, for quantitative review).

Evidence supports the effectiveness of mindfulness-based cognitive therapy for reducing depressive symptoms in individuals with treatment-resistant depression (Eisendrath et al., 2008). Among adults with a history of depression, mindfulness training has produced increases in positive emotions and reductions in rumination and residual depressive symptoms (Geschwind, Peeters, Drukker, van Os, & Wichers, 2011). In addition, a 7-week trial of loving-kindness meditation—which involves directing feelings of warmth towards oneself and others—has been shown to increase daily positive emotions, thereby leading to improvements in personal resources (e.g., purpose in life, social support); greater personal resources, in turn, predicted

reduced depressive symptoms (Fredrickson et al., 2008). A 15-month follow-up revealed that participants who continued to practice loving-kindness meditation reported greater positive emotions than those who ceased meditating or those who had never meditated (Cohn & Fredrickson, 2010). Nevertheless, gains in personal resources from the intervention were maintained across the sample at the 15-month follow-up, regardless of whether or not the participants continued to meditate.

Forgiveness and Hope

Accumulating research on interventions that promote specific positive perspectives—including efforts to foster forgiveness and hope—suggest that these interventions are promising for enhancing mental health and reducing psychological distress. In particular, meta-analyses of forgiveness interventions suggest that the process of willfully giving up resentment and developing empathy for an offender can improve one's emotional health, as well as decrease symptoms of depression and anxiety, and increase feelings of hope and self-esteem (Baskin & Enright, 2004; Wade, Hoyt, Kidwell, & Worthington, 2014).

Snyder and colleagues (1991) conceptualize hope as a cognitive process for actively pursuing one's goals. Hope therapy is designed to help individuals set meaningful goals, identify pathways to pursue goals, as well as strengthen motivation and monitor progress towards those goals (Cheavens, Feldman, Gum, Michael, & Snyder, 2006). A randomized, wait-list controlled investigation using 32 community members—many of whom had previously undergone psychological treatment and met the criteria for a mental disorder—showed that hope-based group therapy reduced depression and enhanced life meaning and self-esteem (Cheavens et al., 2006).

Multi-Component Interventions

Many previous studies testing PAIs have focused on a single activity in order to identify the moderators and mechanisms underlying its success. However, a “shotgun” approach—in which individuals practice multiple PAI activities—may be more effective than practicing a single positive activity (Seligman, 2005; Sin & Lyubomirsky, 2009). For example, Moskowitz and colleagues have developed a multi-component PAI that consists of eight empirically-supported behavioral and cognitive activities designed to increase positive emotions: noticing and recalling positive events, savoring and capitalizing on positive events, gratitude, mindfulness, positive reappraisal, focusing on personal strengths, setting attainable goals, and performing acts of kindness (Bassett, Cohn, Cotten, Kwok, & Moskowitz, 2019; Cheung et al., 2017; Cohn, Pietrucha, Saslow, Hult, & Moskowitz, 2014; Moskowitz et al., 2017; Moskowitz et al., 2012). To date, their multi-component intervention has produced promising results for increasing positive affect and reducing negative psychological states (e.g., depressive symptoms, negative affect, and perceived stress) in people experiencing various types of life stress, including caregivers of people with dementia, patients with type 2 diabetes (Cohn et al., 2014), women with stage IV breast cancer (Cheung et al., 2017), and people living with HIV (Moskowitz et al., 2017). A recent meta-analysis (Hendriks, Schotanus-Dijkstra, Hassankhan, de Jong, & Bohlmeijer, 2019) found that the benefits of multi-component PAIs were comparable or larger in magnitude than that of single-component PAIs, as indicated by improvements in subjective well-being (aggregated effect size: Hedge’s $g = 0.34$), psychological well-being ($g = 0.39$), and depression ($g = 0.29$).

Positive Activity Interventions for Individuals with Depression

Proposed Mechanisms

The mechanisms underlying PAI effectiveness in clinical populations are not well-understood, yet theoretical frameworks have been put forth to guide future research towards addressing this gap in knowledge. Building on Nolen-Hoeksema and Watkins' (2011) Transdiagnostic Risk Factor Framework, Layous, Chancellor, and Lyubomirsky (2014) proposed that positive activities may serve as protective factors that mitigate proximal risk factors both directly and by intervening with the mechanisms that give rise to the risk factors. Specifically, positive activities are theorized to operate in several ways: (a) by mitigating proximal risk factors (e.g., loneliness, rumination) for mental disorders, (b) by mitigating mechanisms (e.g., maladaptive coping, low self-esteem) that link distal and proximal risk factors, and (c) by mitigating conditions (e.g., stress, loss) that act on proximal risk factors to determine disorder. Thus, the skills cultivated through PAIs can be mobilized when individuals are faced with challenges and risk factors that increase the likelihood of developing psychopathology (Layous et al., 2014; Lyubomirsky & Layous, 2013). A growing number of PAIs have been developed specifically for individuals with clinical depression or elevated depressive symptoms.

Empirical Evidence Supporting PAIs for Depressive Symptoms

In a pilot study, Taylor, Lyubomirsky, and Stein (2017) tested the efficacy of a PAI designed to upregulate the positive affect system in anxiety and depression. Twenty-nine treatment-seeking individuals with clinically impairing symptoms of anxiety and/or depression were randomly allocated to either a 10-session PAI or a wait-list condition. The PAI involved ten 1-hour individual treatments delivered by a therapist. The core modules consisted of exercises designed to increase positive thinking, emotions, and/or behaviors, with the final module dedicated to developing a personalized positive activity plan for continued engagement in activities and to identify strategies to minimize relapse. The PAI group showed significantly

increased positive emotions and psychological well-being and reductions in negative emotions and depressive symptoms, compared to the control group. Improvements in all outcomes were maintained at 3- and 6-month follow-up assessments, demonstrating that efforts to increase positive affect can confer benefits that generalize to negative affect-related outcomes.

In another study, 284 well-being-seeking volunteers with mild to moderate depressive symptoms were randomized into either an online PAI called Psyfit or a wait-list control group (Bolier, Haverman, Kramer, et al., 2013). Participants in the intervention group completed weekly lessons consisting of psychoeducation and positive activity exercises, in addition to receiving automated emails with reminders and advice to encourage engagement. Intervention participants experienced a decline in depressive symptoms post-intervention, as well as improvements in well-being, self-reported health, and vitality, compared to individuals in the control group. Improvements in depressive symptoms persisted at 6 months post-intervention, demonstrating that online self-help PAIs without therapist support may be promising for improving mental health in individuals with mild to moderate depressive symptoms.

Empirical Evidence Supporting PAIs for Clinical Depression

Such evidence supports the efficacy of using happiness-promoting exercises originally developed and tested in nonclinical dysphoric populations. However, less research has been done to test programs consisting of multiple positive activities to treat individuals with clinical depression; notable exceptions include pioneering work on Positive Psychotherapy (PPT) and Well-Being Therapy. Initial evidence from research on PPT and Well-Being Therapy suggests that clinical depression can be alleviated by nurturing positive emotions, building personal strengths, and fostering engagement and life meaning.

In a 6-week study, 40 mildly-to-moderately depressed young adults were assigned to participate in group PPT or to a no-treatment control condition (Seligman, Rashid, & Parks 2006). Group PPT consisted of varying positive exercises each week, including using one's strengths, practicing active and constructive responding, and savoring everyday activities. During the 2-hour weekly sessions, participants engaged in group discussions, received guidance on how to carry out the positive activities, and were assigned homework. Although the treatment was not individually tailored for each participant, group PPT was nonetheless efficacious for ameliorating depressive symptoms and improving life satisfaction. The results for the lasting relief of depression were impressive—on average, PPT participants were nondepressed 1 year later, whereas those in the no-treatment control group remained mildly-to-moderately depressed.

How do positive therapies compare to more traditional treatments for depression? To answer this question, Seligman and colleagues (2006) randomly assigned 20 individuals diagnosed with Major Depressive Disorder to receive either 14 sessions of PPT or treatment as usual (i.e., treatments that the therapists deemed suitable for their clients). Another group of individuals, receiving both treatment as usual and antidepressant medication, were matched to PPT clients based on the severity of depression. PPT was administered using a manualized protocol that focused on establishing congenial and empathetic rapport, identifying and using the client's strengths, coaching the client to attend to and remember the good in his or her life, and teaching positive social behaviors. The results showed a remarkable advantage for PPT: Compared to treatment as usual and treatment as usual plus medication, PPT produced greater happiness, more symptomatic improvement, and higher remission rates.

Furthermore, therapies that enhance well-being may confer an advantage over traditional treatments for relieving the *residual* symptoms of major depression. One such therapy, Well-

Being Therapy (WBT), aims to improve six dimensions of psychological well-being: autonomy, personal growth, environmental mastery, purpose in life, positive relations, and self-acceptance (Fava & Ruini, 2003; Ryff, 1989). WBT emphasizes the self-monitoring of episodes of well-being, identifying and changing beliefs that interrupt well-being, and reinforcing beliefs that promote well-being (Fava, Cosci, Guidi, & Tomba, 2017; Fava & Ruini, 2003). In a study of 20 patients with remitted affective disorders, participants who received WBT showed greater increases in psychological well-being, compared to those who received CBT (Fava et al., 1998). Thus, while both WBT and CBT interventions significantly reduce depressive symptoms, WBT has the advantage of producing relatively greater improvements in positive aspects of well-being.

Taken together, a growing number of experimental interventions support the success of focusing on building positive feelings, cognitions, and behaviors. These interventions offer a novel, yet efficacious, approach to treating symptoms of depression in clinical and nonclinical samples. Moreover, PAIs foster increases in essential components of subjective and psychological well-being, including happiness, life satisfaction, purpose in life, and self-esteem.

Factors Moderating the Efficacy of Positive Activity Interventions

It is unlikely that every person will engage in and experience a given happiness-promoting activity in the same manner or benefit from it to the same degree. As we discuss below, an activity that is beneficial for one person, group, or context can be ineffective or even detrimental to another. It is therefore crucial to identify factors that might enhance or limit the success of PAIs. Such moderating factors include both features of the activity (e.g., whether it is delivered one-on-one) and features of the well-being seeker (e.g., how much social support she has; Lyubomirsky & Layous, 2013).

Therapeutic Guidance

Not surprisingly, more individual attention from a therapist is associated with relatively greater boosts in well-being and improvements in depressive symptoms (Sin & Lyubomirsky, 2009). Individual therapies bring the greatest benefits, followed by group interventions (Baskin & Enright, 2004; Bolier, Haverman, Westerhof, et al., 2013; Sin & Lyubomirsky, 2009). Self-administered positive activities (i.e., without clinician guidance) are not as efficacious as individual therapy or group therapy (Malouff & Schutte, 2017). Nevertheless, engaging in self-administered positive activities significantly enhances well-being, compared to neutral activities or no activity at all (Sin & Lyubomirsky, 2009).

Variety

Hedonic adaptation to a single positive activity can occur with repeated practice, which may weaken the freshness and meaning of the exercise to the individual. For example, a 10-week kindness intervention revealed that although regularly committing acts of kindness improved well-being, this effect was only observed for individuals who varied the types of kind acts they enacted, as opposed to performing similar types of activities each week (Sheldon, Boehm, & Lyubomirsky, 2013). In another study, users of a happiness-boosting iPhone app reported greater increases in happiness if they practiced multiple positive activities instead of just one (Parks, Della Porta, Pierce, Zilca, & Lyubomirsky, 2012). To prevent loss of enthusiasm for positive activities, individuals should consider switching between different activities or practicing a set of activities within a multicomponent PAI (Cheung et al., 2018, 2017; Cohn et al., 2014).

Duration of Intervention and Continued Practice

Interventions that are longer in duration (measured in hours or weeks) tend to be more effective for both treating depression and boosting happiness than those with relatively shorter interventions (Bolier, Haverman, Westerhof, et al., 2013; Sin & Lyubomirsky, 2009). Longer

interventions may allow for more practice, greater opportunity to turn activities into long-lasting habits, and—in the case of therapies—more therapeutic guidance. Similarly, individuals who continue to practice positive activities after a formal intervention has ended experience relatively greater increases in happiness (Lyubomirsky et al., 2011; Seligman et al., 2005; Sheldon & Lyubomirsky, 2006). However, a caveat to these findings is that individuals who are most likely to continue practicing positive activities after an intervention are those who may be more committed or more motivated, compared to those who engage in less practice post-intervention.

Motivation and Autonomy

Interventions that people freely choose to engage in—and carry out with a high degree of autonomy—tend to be more successful for reducing depressive symptoms and enhancing well-being than interventions to which people are assigned (Bolier, Haverman, Westerhof, et al., 2013; Lyubomirsky et al., 2011; Nelson et al., 2015; Sin & Lyubomirsky, 2009). Individuals who volunteer or self-select themselves into an intervention, performing it as they choose, are presumably relatively more motivated to become happier and may be more diligent and enthusiastic about following instructions or carrying out recommendations.

One reason that motivation matters is that it is associated with a relatively high degree of effort, as well as continued practice of positive activities. For example, one study found that the more effort that participants put into practicing gratitude or kindness, the happier they became (Layous, Nelson, & Lyubomirsky, 2013; see also Lyubomirsky et al., 2011; Sheldon & Lyubomirsky, 2006). Continued effort at practicing positive activities has also been related to sustained declines in depression scores at a 1-month follow-up (Seligman et al., 2005) and more positive emotions at a 15-month follow-up (Cohn & Fredrickson, 2010).

Person-Activity and Culture-Activity Fit

A proper “fit” or match between a person and a happiness-increasing activity is likely to impact the efficacy of an intervention. Individuals possess strengths, needs, values, interests, cultural norms, and preferences that predispose them to benefit more from some happiness-enhancing activities than others (Lyubomirsky, 2008; Lyubomirsky, Sheldon et al., 2005). In one study, those who reported preferring particular positive activities were more likely to adhere to them and to benefit from them (Schueller, 2010). For example, relative to an introvert, an extravert may find it more rewarding to perform acts of kindness and to deepen social bonds than to engage in a more solitary activity, such as writing about their positive traits (Pressman, Kraft, & Cross, 2015). Additionally, members of collectivist cultures may benefit more from positive activities aligned with cultural prescriptives. For example, studies have shown weaker effects for expressing gratitude in Korean (vs. U.S.) participants (Layous, Lee, Choi, & Lyubomirsky, 2013) and stronger effects for kindness directed towards friends and family (versus strangers) in Hong Kong Chinese (vs. U.S.) participants (Shin & Lyubomirsky, 2017).

Social Support

PAIs may bring more success when a person has a supportive social network. Social support is valuable in a multitude of ways. Close others can provide ongoing encouragement and confidence-building, particularly during trying times or when the initial motivation or excitement has waned. They can be a source of inspiration for positive psychology activities (e.g., being recipients of gratitude letters). Finally, friends and family can give feedback and substantive advice regarding one’s progress towards greater well-being. Evidence for the beneficial role of social support comes from a study in which students who practiced optimism over the course of 4 weeks became happier after reading a supportive testimonial from a peer than those who read neutral information (Layous, Nelson et al., 2013).

Depression Status

Depression status has been shown to moderate the efficacy of PAIs, such that individuals with depression generally experience more improvement in well-being and greater reductions in depressive symptoms relative to their nondepressed counterparts (Bolier, Haverman, Westerhof et al., 2013; Sin & Lyubomirsky, 2009). However, this finding is confounded with treatment format; studies that use participants with clinical depression tend to treat them with individual or group therapies (which offer attention and guidance from a clinician) rather than with self-administered interventions. To our knowledge, studies have not directly compared the efficacy of self-administered positive interventions in people with versus without clinical depression. This goal is critical to ensure that positive activities do not backfire in clinical populations—for example, if expressing gratitude leads a depressed individual to feel more of a burden on friends and family, to feel guilty for not having expressed gratitude (or repaid it) sooner, or to feel like a failure for needing help in the first place (Fritz & Lyubomirsky, in press).

Final Remarks

By advocating for greater emphasis on well-being, the field of positive psychology has challenged the conventional notion that mental health is equivalent to the absence of mental disorders (Fava & Ruini, 2003; Ryff, 1989). The prevalence of Major Depressive Disorder, as well as subclinical depression, speaks to the need for novel treatments that are efficacious, accessible, easily administered, cost-effective, non-stigmatizing, individually-tailored, and protective against future recurrence of depression. Growing research shows that positive activity interventions—that is, treatment programs and activities that primarily aim to cultivate positive emotions and personal strengths—have been successful in reducing depressive symptoms and enhancing well-being. However, these interventions are not a one-size-fits-all approach. Positive

activity interventions developed for nonclinical samples should be adapted and tested for individuals with depression, particularly given that the motivational, affective, and cognitive deficits characteristic of depression can hinder one's ability to fully engage in effortful happiness-promoting activities and sometimes even lead such activities to backfire. We encourage researchers and clinicians to consider the role of expectations and other moderating factors (such as social support, person-activity "fit," and beliefs about the pursuit of happiness) when administering positive activity interventions for individuals with depression. Future research is needed to understand how to tailor positive activity interventions to target specific depressive symptoms (e.g., cognitive vs. somatic vs. affective) and to buffer against relapses in depression. Interventions that build on the positives in people's lives show great promise for enhancing well-being, whether it be for helping individuals to flourish, or as a complement to traditional treatments for depression.

POSITIVE ACTIVITY INTERVENTIONS FOR DEPRESSION

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