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Tailoring Positive Psychology Interventions to Treat Depressed Individuals

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When Scott finally sought treatment, it was apparent that he had been struggling for some time. He was unshaven and wore large, crumpled clothes that overwhelmed his thin frame. At 27, Scott seemed to move with the labored, slouched shuffling of an elderly man. Slowly and dully, with frequent pauses, Scott explained that he had been feeling persistently sad and withdrawn for several years, starting in college. However, his mental health had steadily deteriorated ever since he began a new job several months earlier. Scott felt inadequate and worthless, particularly at work. His poor self-esteem was further compounded by his lack of meaningful friendships. Scott found no delight in activities he used to enjoy, such as biking, playing classical guitar, and reading philosophy books. When not dragging himself through the workday, Scott passed the time by sitting or lying motionless at home for hours on end. He doubted he would ever feel good again. What can positive psychology do for Scott?

Traditionally, psychologists have equated mental health with the absence of mental illness – that is, Scott would be considered psychologically well when his depressive symptoms are relieved. 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 and to advance work on *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), self-acceptance, purpose, and personal growth (Ryff, 1989).

A NEED FOR NOVEL TREATMENTS FOR DEPRESSION

In a given one-year period, approximately 5.4% of the US population will meet the criteria for Major Depressive Disorder, and many others suffer from depressive symptoms or chronic low-level depression (Narrow, Rae, Robins, & Regier, 2002). Depression is enormously debilitating for individuals, families, and society, costing the USA tens of billions of dollars each year in lost productivity, medical expenses, and more (e.g., Wang, Simon, & Kessler, 2003). Despite a variety of empirically supported treatments for depression, why do a startling number of people continue to suffer from this incapacitating illness?

We suggest two possible explanations. First, many people do not seek treatment for depression – only about 14.8% of individuals potentially diagnosable with Major Depressive Disorder actually receive appropriate counseling from a mental health provider during a one-year period (Young, Klap, Sherbourne, & Wells, 2001). Many individuals with depression are perhaps reluctant or unwilling to seek treatment because of the stigma associated with mental illness. Others may be unable to obtain treatment because they lack the requisite financial resources. One promising solution to this problem would be to offer treatments that people can administer themselves, for example self-help books, DVDs, or interactive digital Web-based and mobile-based programs based on research. Computerized treatments for depression – such as *Beating the Blues*, an eight-session cognitive-behavioral program with homework exercises – are efficacious options for depressed individuals who cannot or prefer not to engage in traditional face-to-face therapy (Cavanagh & Shapiro, 2004; Proudfoot, Goldbarg, Mann, Everitt, Marks, & Gray, 2003). Although these alternative options should not take the place of professional, individualized treatment, especially in cases of moderate or severe depression, they are nevertheless 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 cognitive-behavioral therapy (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 perhaps particular components of CBT fail to provide a good "fit" with some clients' personalities, goals, values, resources, or lifestyles. In sum, novel treatment approaches should be accessible, customizable to the individual's needs, and promote the building of durable resources to protect against relapse.

WHY USE POSITIVE PSYCHOLOGY TO TREAT DEPRESSION?

Depression is often conceptualized as an overabundance of negatives – namely, negative moods and negative cognitions (e.g., Abramson, Seligman, & Teasdale,

1978). It is not surprising then that existing depression treatments are primarily focused on alleviating and fixing these negatives and less concerned with building positive resources. However, negative affect and positive affect are two independent constructs (Watson & Tellegen, 1985); the absence of negative feelings is not equivalent to the presence of positive ones. According to a frequently mentioned analogy, psychologists should not aim to merely raise a person's mental health from a –5 to a neutral 0; instead, the aim should be to raise that person to a +5 or higher. Treatments should thus strive to cultivate an individual's well-being, rather than only ameliorating depressive symptoms (Lyubomirsky, 2008).

Positive emotions are valuable for more than just feeling good. They 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, 2005a). The benefits of positive emotions are especially relevant to those suffering from depression: Positive emotions have been shown to speed recovery from the cardiovascular effects of negative emotions (Fredrickson & Levenson, 1998; Tugade & Fredrickson, 2004), improve broad-minded coping skills (Fredrickson & Joiner, 2002), and buffer against relapses (Fava & Ruini, 2003).

Even momentary positive feelings can produce lasting changes in one's life. According to Fredrickson's (2001) broaden-and-build theory, positive emotions broaden thinking and attention. Broadened mindsets bring about novel ideas and actions (e.g., the urge to play and explore) and 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 approach-oriented motivation are associated with less severe depression and a greater likelihood of recovery (Kasch, Rottenberg, Arnow, & Gotlib, 2002). In contrast to the narrowing of attention (Gasper & Clore, 2002) and behavioral inhibition (Kasch et al., 2002) characteristic of negative states, positive emotions trigger upward spirals toward greater psychological well-being (Fredrickson & Joiner, 2002).

ENHANCING WELL-BEING VIA POSITIVE PSYCHOLOGY INTERVENTIONS

Much skepticism exists regarding whether well-being can be sustainably increased. Is it possible for a person to become happier, and if so, how? Genetics (i.e., one's temperament and happiness "set point") and – to a lesser extent – life circumstances (e.g., age, marital status, income level) determine a sizable portion of one's well-being (Lyubomirsky, Sheldon, & Schkade, 2005b). Nevertheless, considerable "room" remains for one to climb up or drop down in happiness, as approximately 40% of the individual differences in well-being can be accounted for by one's activities and perceptions of life circumstances (Lyubomirsky et al., 2005b). Indeed, studies have shown that well-being can be boosted by engaging in intentional, effortful activities, such as writing letters of gratitude (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2009; Seligman et al., 2005), counting one's

blessings (Emmons & McCullough, 2003; Froh, Sefick, & Emmons, 2008; Lyubomirsky et al., 2005b), practicing optimism (Sheldon & Lyubomirsky, 2006), performing acts of kindness (Boehm, Lyubomirsky, & Sheldon, 2009; Lyubomirsky et al., 2005b), and using one's signature strengths (Seligman et al., 2005). These activities – empirically tested in so-called *positive psychology interventions* – are similar in that they promote positive feelings, positive thoughts, and/or positive behaviors, rather than directly aiming to fix any negatives.

A recent meta-analysis of 51 studies revealed that positive psychology interventions are effective for enhancing well-being and ameliorating depressive symptoms (Sin & Lyubomirsky, 2009). The magnitudes of these effects are medium-sized (mean r = .29 for well-being, mean r = .31 for depression) and are quite impressive, given that many of these interventions are self-administered positive activities rather than therapy. To put the effectiveness of positive psychology interventions into perspective, consider the classic Smith and Glass (1977) meta-analysis of 375 psychotherapy studies. Smith and Glass found that psychotherapy had an average effect size r of .32 on various outcomes, such as self-esteem and adjustment. In contrast, studies of positive psychotherapies (albeit few in number) show average r effect sizes of about .30 to .57 on well-being and depression outcomes. Thus, although the development, research, and implementation of these interventions is in its infancy, positive psychology interventions show immense promise for improving the lives of many.

POSITIVE PSYCHOLOGY INTERVENTIONS FOR NON-DEPRESSED INDIVIDUALS

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, such as practicing optimism, performing kind acts, and cultivating gratitude, in randomized controlled experiments.

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, once a day for four consecutive days, participants were instructed to "imagine that everything has gone as well as it possibly could" and to write about it for 20 minutes (King, 2001). These individuals experienced a greater boost to 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 five months later. Even more impressive are findings from a recent follow-up study, which found similar benefits for an analogous intervention that involved only two minutes of writing on only two consecutive days (Burton & King, 2008).

In a four-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 four-week period, perhaps because participants felt relatively more self-concordant motivation (or intrinsic interest) for this activity and, in turn, practiced it more frequently. Finally, the benefits of thinking optimistically were replicated in two follow-up studies (Lyubomirsky et al., 2009), in which students wrote about their best possible selves for 15 minutes a week over the course of eight weeks (Study 1), and community-dwelling adults wrote for 10 minutes a week over the course of six weeks (Study 2). Notably, significant differences in well-being between the experimental and control groups remained in these studies even six months and one month, respectively, after the intervention ended.

Kindness

An association exists between kindness and happiness, such that happy people tend to engage in more prosocial behaviors (Lyubomirsky et al., 2005a; Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006). 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 that 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.

The positive emotional benefits of kindness extend beyond performing actual behaviors to simply recalling them. Otake and colleagues (2006) conducted a "counting kindnesses" intervention by assigning individuals to keep track of their own kind behaviors towards others for one week. Compared to the control group, those who counted kindnesses experienced a greater boost in happiness one month later. Furthermore, the largest increases in happiness and gratitude occurred for individuals who reported enacting a greater number of kind behaviors.

However, the quantity of kind acts is only one of many factors to consider when assessing their well-being benefits. Lyubomirsky et al. (2005b) demonstrated that the timing of kind acts – particularly if the acts are small – matters. In their six-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, but 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. Another critical factor to consider in kindness – or any other – interventions is variety or novelty. A 10-week intervention revealed that although regularly committing

acts of kindness improves well-being, this effect is observed only for individuals who vary the types of kind acts they enact, as opposed to performing the very same activities each week (Boehm et al., 2009).

These findings suggest that the pursuit of happiness need not be a self-focused or self-absorbed endeavor. By helping others, people are likely to feel more confident in their abilities to enact change, build better relationships, and trigger an upward spiral of positive emotions and positive interpersonal exchanges (Lyubomirsky et al., 2005a; Otake et al., 2006).

Gratitude

Not surprisingly, the cultivation of gratitude – a cognitive construct closely related to the behavior of kindness – has 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 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 2–3 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. Moreover, the counting of blessings led to more positive moods, better sleep, and a greater sense of social connectedness in a sample of participants with neuromuscular disease.

Similarly, Lyubomirsky et al. (2005b) showed that the cultivation of grateful thinking across a six-week period can produce a boost in well-being. However, the frequency of the activity was found to be a moderating variable, such that individuals who counted blessings once a week became happier, but not those who counted blessings three times a week. It is likely that overpracticing any one positive activity may weaken its freshness and meaning.

Although gratitude-inducing exercises appear to have a powerful impact on well-being, not everyone is likely to benefit from this activity. In their four-week experimental study, Sheldon and Lyubomirsky (2006) found that only those participants who applied high effort and were intrinsically driven to write letters of gratitude obtained the benefits of the intervention. Likewise, a more recent study revealed that writing gratitude letters weekly over an eight-week period did not produce gains in well-being for everyone (Lyubomirsky et al., 2009). Only those individuals who had an intrinsic desire to become happier – as well as those who continued to practice the activity even after the intervention ended – experienced enhanced well-being. In fact, the motivation to become happier was such a powerful factor that these individuals continued to show increased well-being six months post-intervention.

POSITIVE PSYCHOLOGY INTERVENTIONS FOR INDIVIDUALS WITH DEPRESSION

A growing number of positive psychology interventions have been tested on individuals with depressive symptoms and those diagnosed with depression. In an on-line study, Seligman and colleagues (2005) randomly assigned 411 volunteers – who were mildly depressed, on average – to engage for one week in one of five purported happiness-enhancing activities or a placebo control activity. The positive activities were to write and deliver a gratitude letter, write about three good things in life, write about a time when they were at their best, identify signature strengths, and use signature strengths in a new way. For the placebo exercise, participants were instructed to write about their early memories. Participants experienced a boost in happiness and a decline in depressive symptoms immediately post-intervention, regardless of the assigned activity. However, whereas participants in the placebo condition returned to and remained at their baseline state one week later, those who completed the happiness-enhancing exercises were more likely to continue garnering the benefits. Two of the activities – writing about three good things and using signature strengths in a new way – resulted in lasting improvements in depression and happiness for six months. This study demonstrates that even simple, self-guided exercises can bring long-term benefits to mildly depressed or dysphoric individuals, especially for those who continue to engage in the exercise after the intervention period is long over.

Such evidence supports the efficacy of single happiness-promoting exercises in non-clinical dysphoric populations. However, little research has been done to test programs consisting of multiple positive psychology-based exercises to treat clinical populations. An exception is pioneering work on positive psychotherapy (PPT) and well-being therapy (WBT), which reveals that clinical depression can be alleviated by nurturing positive emotions, building inner strengths, and fostering engagement and life meaning.

In a six-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-h weekly sessions, participants engaged in group discussions, received guidance on how to carry out the positive exercises, and were assigned homework. Although the treatment was not individually tailored for each participant, group PPT was nonetheless efficacious for ameliorating depressive symptoms and raising life satisfaction. The results for the lasting relief of depression are impressive – on average, PPT participants were non-depressed a 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., whatever treatment 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. For this study, PPT was administered using a manualized protocol that focused on both positive and negative aspects of the client. Customized to address the client's immediate concerns, PPT aimed to balance the overwhelming negatives of depression by 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, 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 & Ruini, 2003). Indeed, a preliminary study of 20 patients with remitted affective disorders (including depression) showed that WBT resulted in greater increases in psychological well-being compared to CBT (Fava et al., 1998). Although both treatment approaches significantly reduced residual symptoms, observer-rated methods indicated that WBT led to more improvement than did CBT (Fava et al., 1998).

Emerging research on interventions that promote specific positive perspectives (including forgiveness, hope, mindfulness, and loving-kindness) have also been shown to enhance mental health and reduce depression. A meta-analysis of several controlled forgiveness interventions suggests that the process of willfully giving up resentment and developing empathy for an offender can improve one's emotional health, as measured by scales of depression, anxiety, hope, and self-esteem (Baskin & Enright, 2004).

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).

Finally, burgeoning empirical research extols the benefits of training the mind through regular meditation practice. Mindfulness meditation involves intentional, non-judgmental awareness and acceptance of the present moment (Kabat-Zinn, 1990). Interventions rooted in mindfulness (such as mindfulness-based stress reduction and mindfulness-based cognitive therapy) have been shown to improve well-being and to alleviate physical and psychological distress in patients with chronic fatigue syndrome (Surawy, Roberts, & Silver, 2005), fibromyalgia

(Grossman, Tiefenthaler-Gilmer, Raysz, & Kesper, 2007), rheumatoid arthritis (Zautra et al., 2008), traumatic brain injury (Bédard et al., 2003), and other chronic ailments and stressors (see Grossman, Niemann, Schmidt, & Walach, 2004, for a quantitative review). Mindfulness meditation has also been used to benefit treatment-resistant individuals with depression (Eisendrath, Delucchi, Bitner, Fenimore, Smit, & McLane, 2008), reduce residual depressive symptoms (Kuyken et al., 2008), decrease rumination (Ramel, Goldin, Carmona, & McQuaid, 2004), and prevent relapse in recurrent depression (Kuyken et al., 2008). Similarly, loving-kindness meditation – wherein individuals cultivate feelings of love and compassion for the self and others – has been shown to lower depressive symptoms and enhance life satisfaction through increases in personal resources (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008).

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 psychiatric and non-psychiatric, medical and non-medical populations. Moreover, these novel treatments foster increases in essential components of mental well-being, including happiness, life satisfaction, purpose in life, and self-esteem.

FACTORS MODERATING THE EFFICACY OF POSITIVE PSYCHOLOGY INTERVENTIONS

It is unlikely that all individuals would engage in and experience a given happiness-promoting activity in the same manner or profit 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 improve or limit the success of positive psychology interventions.

Therapeutic Guidance

Not surprisingly, more individual attention from a therapist is associated with a relatively greater boost in well-being and improvement in depressive symptoms (Sin & Lyubomirsky, 2009). Individual positive psychology interventions bring the greatest benefits, followed by group interventions (Baskin & Enright, 2004; Sin & Lyubomirsky, 2009). Self-administered positive activities – that is, positive activities conducted without therapeutic guidance – are not as effective as individual therapy or group therapy. Nevertheless, partaking in self-administered positive activities significantly enhances well-being, compared to engaging in neutral activities or no activity at all (Sin & Lyubomirsky, 2009).

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 relatively

shorter interventions (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., 2009; Seligman et al., 2005; Sheldon & Lyubomirsky, 2006).

Self-Selection, Motivation, and Outcome Expectations

Interventions that people freely choose to engage in – fully aware that the intervention may make them happier – tend to be more successful for lifting depressive symptoms and enhancing well-being than interventions to which people are assigned (Lyubomirsky et al., 2009; Sin & Lyubomirsky, 2009). Individuals who volunteer or self-select themselves into an intervention are presumably more motivated to become happier than those who are randomly assigned into an intervention, and may be relatively more diligent and enthusiastic about following instructions or carrying out recommendations.

Person–Activity Fit

A proper "fit" or match between a person and a particular happiness-increasing activity is likely to impact the effectiveness of an intervention. Individuals have strengths, needs, values, interests, and preferences that predispose them to benefit more from some happiness-enhancing activities than others (Lyubomirsky, 2008; Lyubomirsky, Sheldon et al., 2005). For example, a sociable person 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 her positive traits.

Social Support

Positive psychology interventions may bring more success when a person has a supportive social network. Social support is valuable in a number 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.

Depression Status

Depression status has been shown to moderate the efficacy of positive psychology interventions, such that depressed individuals generally experience more improvement in well-being and greater reductions in depressive symptoms relative to non-depressed ones (Sin & Lyubomirsky, 2009). However, this finding is confounded with treatment format; studies that use clinically depressed participants tend to treat them with individual or group therapies (which offer attention and guidance

from a clinician) rather than self-administered interventions. To our knowledge, studies have not compared the efficacy of self-administered positive interventions in depressed versus non-depressed samples.

AN EXPERIMENTAL LONGITUDINAL INTERVENTION WITH DYSPHORIC INDIVIDUALS: PRELIMINARY EVIDENCE

Background

The majority of positive psychology interventions, such as writing letters of gratitude or writing about one's best possible selves, have been tested using non-clinical participants. Although it is plausible to extrapolate from the extant research by presuming that positive activities should also benefit individuals "deficient" in well-being, emerging evidence suggests that this is not necessarily the case. For example, a recent study revealed that the rehearsal of positive self-statements such as "I'm a lovable person" – a technique commonly advocated by therapists, self-help books, and Senator Al Franken's parody via the persona of Stuart Smalley – can backfire for those with low self-esteem (Wood, Perunovic, & Lee, 2009). Whereas individuals with high self-esteem experienced a lift in their moods after repeating positive self-statements, those with low-self esteem felt worse. The authors of this study speculated that this exercise may highlight the discrepancy between the positive statements and one's own views. Similarly, it is possible that other previously validated positive activities may have null or even detrimental effects on the well-being of some individuals.

To test whether a well-documented positive activity such as writing letters of gratitude would engender a sustained increase in happiness in a dysphoric (non-clinically depressed) sample, we conducted an eight-week randomized experimental longitudinal study. This study was motivated by the following research questions: (1) Will the regular practice of an effortful, positive activity (compared to a neutral placebo activity) boost the well-being of dysphoric participants? and (2) How much does "expected efficacy" (i.e., expecting a particular activity to make you happier or not) impact the benefits derived from it? In addition, we tested several moderators to evaluate the boundary conditions that influence the efficacy of engaging in a gratitude or placebo activity: (1) social support; (2) person–activity "fit"; and (3) beliefs about the pursuit of happiness.

Method and Procedure

Fifty-eight undergraduate psychology students were randomly assigned to perform one of two activities: a happiness-boosting activity (writing a gratitude letter) or a placebo activity (listening to and writing about classical music). Furthermore, participants' expected efficacy of these activities was manipulated by presenting them with bogus *New York Times*™ articles claiming that the activity either has or has not been found to increase well-being. Participants were also presented with

fake weekly poll results, leading them to believe that the majority of participants in an ongoing study rated the activity as making them happier or not making them happier. Thus, the four experimental conditions were gratitude/high expectation (n = 14), gratitude/low expectation (n = 17), placebo/high expectation (n = 14), and placebo/low expectation (n = 13).

Students were instructed to log on to the study Website once a week for four weeks to complete a 15-minute writing exercise. In the *gratitude* conditions, students were asked to write a letter of gratitude to someone who has affected their lives but whom they never properly thanked. They were allowed to write to the same person or a new person each week; actual delivery of the gratitude letter was not encouraged. In the *placebo* conditions, students were instructed to listen to classical music (streaming on the website) and write about the shapes, colors, and other elements that the music brought to mind. We chose songs that have previously been shown to have no positive or negative effects on mood (Gerrards-Hesse, Spies, & Hesse, 1994). Although the activity was of a neutral valence, participants who expected the activity to make them happier were expected to show a "placebo effect."

Measures

The participants were considered dysphoric, as determined by scores on the Beck Depression Inventory II (with the average score being 16.67, indicating mild depression; Beck, Steer, & Brown, 1996). Before the intervention began, we assessed participants' *social support* using the Provisions of Social Relations Scale (Turner, Frankel, & Levin, 1983). On this 15-item measure, participants indicated the extent to which they felt supported by family and friends. *Person–activity "fit"* was measured by having participants rate the extent to which the two activities (expressing gratitude and listening to classical music) were natural and enjoyable. Finally, we assessed participants' beliefs about the *pursuit of happiness* – their desire and willingness to become happier – using the Pursuit of Happiness Scale (Lyubomirsky, 2000). Sample items included "How desirable is happiness for you?" and "How much do you actively pursue happiness?"

Immediately pre-intervention, immediately post-intervention, and three weeks post-intervention, participants completed the following measures of well-being: the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), and the positive affect items of the Positive Affect Negative Affect Schedule – Revised (Watson & Clark, 1999).

Results and Discussion

Our findings were unexpected, in that the practice of gratitude actually *diminished* the well-being of dysphoric participants from before to immediately after the intervention. Our speculation is that dysphoric individuals may have experienced the exercise of writing a gratitude letter to someone that they "have never properly thanked" as a frustrating and difficult charge. Indeed, not surprisingly, perceiving

a task to be difficult can engender negative affect (Winkielman & Cacioppo, 2001; Winkielman & Schwarz, 2001). Alternately, writing the gratitude letter may have backfired if it led our dysphoric participants to think that they had little for which to be grateful. With depressive thoughts and emotions constantly in the way, dysphoric individuals may have had trouble completing the gratitude task and may have come to believe that they were "failing" at it.

Interestingly, however, by the three-week follow-up assessment, those participants who expressed gratitude *and* expected to benefit from this practice evidenced a marginal *increase* in well-being. In contrast, our participants who practiced gratitude but did *not* expect to become happier reported decreases in well-being immediately following the intervention that were sustained at the three-week follow-up. This finding suggests that this latter group experienced the negative effects of both the exasperating gratitude activity and the lack of expectation for a payoff. The challenging nature of writing gratitude letters appears to have been exacerbated by having low expectations for an eventual benefit.

In contrast, our participants who listened to classical music (but had low expectations that this would make them happier) reported an *increase* in well-being during the intervention. We conjecture that this so-called "placebo" condition may have functioned as a distraction condition. Although our participants did not expect the placebo activity to "work," prior research indicates that dysphoric individuals who are distracted in a laboratory setting report temporary decreases in depressive symptoms (Lyubomirsky & Nolen-Hoeksema, 1995; Nolen-Hoeksema, Wisco, Lyubomirsky, 2008). Also, the reported increases in well-being by those who completed the placebo activity without expecting to become happier could have occurred because these participants engaged in the music exercise without the burden of trying to increase their well-being. Therefore, contrary to our expectations, the condition that turned out to be most optimal for experiencing gains in well-being for our dysphoric participants was one that they perceived to be relatively easy and that did not burden them with the expectation to become happier.

Moderator analyses further revealed that several factors impacted the efficacy of the intervention. First, not surprisingly, participants who had a high level of social support *and* a high expectation to become happier reported an increase in well-being immediately after the intervention, relative to participants who had a low expectation to become happier. Second, person–activity "fit" was important for participants in the placebo condition, such that a good fit was associated with greater increases in well-being. A perceived match between the assigned activity and participants' motives, traits, and inclinations could have facilitated their progress towards becoming happier. However, due to the challenging nature of the gratitude activity (compared to the placebo exercise) for the dysphoric participants, fit with the placebo activity may have been more beneficial than fit with writing a letter of gratitude. Finally, strong beliefs about the pursuit and desirability of happiness were found to moderate the efficacy of the placebo activity. Again, the challenging nature of the gratitude activity may have exacerbated the negative emotions of our dysphoric participants, despite a reported willingness to pursue happiness. Individuals who believed in the importance and desirability of the pursuit of happiness and who engaged in the placebo activity (i.e., listening to

classical music) did not experience the frustrations and difficulties shared by those prompted to write gratitude letters and were thus presumably in a better position to garner the well-being benefits from the exercise.

Conclusions

Contrary to prior research demonstrating the well-being benefits of writing gratitude letters (Emmons & McCullough, 2003; Lyubomirsky et al., 2009; Seligman et al., 2005; Watkins, Woodward, Stone, & Kolts, 2003), our study showed that expressing gratitude may be a difficult and counterproductive exercise for dysphoric individuals. On the other hand, a relatively easier neutral activity – listening to and writing about classical music – produced a temporary boost in well-being for those who expected the activity to make them happier, perhaps because it served as a distraction from ruminative thoughts. High levels of social support, person–activity "fit," and desire to pursue happiness contributed to enhanced well-being for participants who engaged in the neutral activity. The findings suggest that some positive psychology interventions (such as writing gratitude letters) may be burdensome and ineffective for depressed or dysphoric individuals, even if they have a supportive social network, feel that they "match" with the activity, and are motivated to become happier. Although the practice of grateful thinking appears to have limitations with respect to the treatment of dysphoric individuals, future research should explore how this activity and other positive psychology interventions can be tailored to meet the needs, preferences, styles, and resources of clients with depressive symptoms.

FINAL REMARKS

By pushing 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 disorder (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 effective, accessible, easily administered, individually tailored, and protective against future recurrence of depression. Growing research shows that positive psychology interventions – that is, experimental studies testing treatment programs and activities that primarily aim to cultivate positive emotions and personal strengths, rather than only fixing negatives – have been successful in reducing depressive symptoms and enhancing well-being. However, these interventions are not one-size-fits-all. Our preliminary study suggests that not all previous findings from happiness interventions with healthy individuals will generalize to depressed or dysphoric samples, because the motivational, affective, and cognitive deficits characteristic of depression can limit or even reverse the beneficial effects of effortful happiness-promoting activities. 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 psychology treatments for individuals with depression.

Interventions that build on the positives in people's lives show great promise for enhancing well-being, whether it be for making euthymic individuals happier or as a complement to traditional treatments for depression.

REFERENCES

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, *87*, 49–74.

Baskin, T. W., & Enright, R. D. (2004). Intervention studies on forgiveness: A meta-analysis. *Journal of Counseling and Development*, *82*, 79–90.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for the Beck Depression Inventory – II*. San Antonio, TX: Psychological Corporation.

Bédard, M., Felteau, M., Mazmanian, D., Fedyk, K., Klein, R., Richardson, J., et al. (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.

Boehm, J. K., Lyubomirsky, S., & Sheldon, K. M. (2009). *Spicing up kindness: The role of variety in the effects of practicing kindness on improvements in mood, happiness, and self-evaluations*. Manuscript in preparation.

Burton, C. M., & King, L. A. (2008). Effects of (very) brief writing on health: The two-minute miracle. *British Journal of Health Psychology*, *13*, 9–14.

Cavanagh, K., & Shapiro, D. A. (2004). Computer treatment for common mental health problems. *Journal of Clinical Psychology*, *60*, 239–251.

Cheavens, J. S., Feldman, D. B., Gum, A., Michael, S. T., & Snyder, C. R. (2006). Hope therapy in a community sample: A pilot investigation. *Social Indicators Research*, *77*, 61–78.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*, 542–575.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*, 71–75.

Dunn, E. W., Aknin, L. B., & Norton, M. I. (2008). Spending money on others promotes happiness. *Science*, *319*, 1687–1688.

Eisendrath, S. J., Delucchi, K., Bitner, R., Fenimore, P., Smit, M., & McLane, M. (2008). Mindfulness-based cognitive therapy for treatment-resistant depression: A pilot study. *Psychotherapy and Psychosomatics*, *77*, 319–320.

Elkin, I., Shea, M. T., Watkins, J. T., Imber, S. D., Sotsky, S. M., Collins, J. F., et al. (1989). National Institute of Mental Health Treatment of Depression Collaborative Research Program: General effectiveness of treatments. *Archives of General Psychiatry*, *46*, 971–982.

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 model for residual symptoms of affective disorders. *Psychological Medicine*, *28*, 475–480.

Fava, G. A., & Ruini, C. (2003). Development and characteristics of a well-being enhancing psychotherapeutic strategy: Well-being therapy. *Journal of Behavior Therapy and Experimental Psychiatry*, *34*, 45–63.

Fordyce, M. W. (1977). Development of a program to increase personal happiness. *Journal of Counseling Psychology*, *24*, 511–521.

Fordyce, M. W. (1983). A program to increase happiness: Further studies. *Journal of Counseling Psychology*, *30*, 483–498.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*, 218–226.

Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, *95*, 1045–1062.

Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, *13*, 172–175.

Fredrickson, B. L., & Levenson, R. W. (1998). Positive emotions speed recovery from the cardiovascular sequelae of negative emotions. *Cognition and Emotion*, *12*, 191–220.

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.

Gasper, K., & Clore, G. L. (2002). Attending to the big picture: Mood and global versus local processing of visual information. *Psychological Science*, *13*, 34–40.

Gerrards-Hesse, A., Spies, K., & Hesse, F. W. (1994). Experimental inductions of emotional states and their effectiveness: A review. *British Journal of Psychology*, *85*, 55–78.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, *57*, 35–43.

Grossman, P., Tiefenthaler-Gilmer, U., Raysz, A., & Kesper, U. (2007). Mindfulness training as an intervention for fibromyalgia: Evidence of postintervention and 3-year follow-up benefits in well-being. *Psychotherapy and Psychosomatics*, *76*, 226–233.

Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain and illness*. New York: Delacourt.

Kasch, K. L., Rottenberg, J., Arnow, B. A., & Gotlib, I. H. (2002). Behavioral activation and inhibition systems and the severity and course of depression. *Journal of Abnormal Psychology*, *111*, 589–597.

King, L. A. (2001). The health benefits of writing about life goals. *Personality and Social Psychology Bulletin*, *27*, 798–807.

Kuyken, W., Byford, S., Taylor, R. S., Watkins, E., Holden, E., White, K., et al. (2008). Mindfulness-based cognitive therapy to prevent relapse in recurrent depression. *Journal of Counseling and Clinical Psychology*, *76*, 966–978.

Lyubomirsky, S. (2000, October). *In the pursuit of happiness: Comparing the United States and Russia*. Paper presented at the Annual Meeting of the Society for Experimental Psychology, Atlanta, GA.

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

Lyubomirsky, S., Dickerhoof, R., Boehm, J. K., & Sheldon, K. M. (2009). *Becoming happier takes both a will and a proper way: Two experimental longitudinal interventions to boost well-being*. Manuscript under review.

Lyubomirsky, S., King, L. A., & Diener, E. (2005a). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*, 803–855.

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, *46*, 137–155.

Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused rumination on negative thinking and interpersonal problem-solving. *Journal of Personality and Social Psychology*, *69*, 176–190.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005b). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, *9*, 111–131.

Narrow, W. E., Rae, D. S., Robins, L. N., & Regier, D. A. (2002). Revised prevalence estimates of mental disorders in the United States: Using a clinical significance criterion to reconcile 2 surveys' estimates. *Archives of General Psychiatry*, *59*, 115–123.

Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science*, *3*, 400–424.

Otake, K., Shimai, S., Tanaka-Matsumi, J. Otsui, K., & Fredrickson, B. L. (2006). Happy people become happier through kindness: A counting kindness intervention. *Journal of Happiness Studies*, *7*, 361–375.

Proudfoot, J., Goldberg, D., Mann, A., Everitt, B., Marks, I., & Gray, J. A. (2003). Computerized, interactive, multimedia cognitive-behavioural program for anxiety and depression in general practice. *Psychological Medicine*, *33*, 217–227.

Ramel, W., Goldin, P. R., Carmona, P. E., & McQuaid, J. R. (2004). The effects of mindfulness meditation on cognitive processes and affect in patients with past depression. *Cognitive Therapy and Research*, *28*, 433–455.

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.

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.

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. *American Psychologist*, *60*, 410–421.

Sheldon, K. M., & Lyubomirsky, S. (2006). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves. *Journal of Positive Psychology*, *1*, 73–82.

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.

Smith, M. L., &. Glass, G. V. (1977). Meta-analysis of psychotherapy outcome studies. *American Psychologist*, *32*, 752–760.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, *60*, 570–585.

Surawy, 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.

Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, *86*, 320–333.

Turner, R. J., Frankel, B. G., & Levin, D. M. (1983). Social support: Conceptualization, measurement, and implications for mental health. *Research in Community and Mental Health*, *3*, 67–111.

Wang, P. S., Simon, G., & Kessler, R. C. (2003). The economic burden of depression and the cost-effectiveness of treatment. *International Journal of Methods in Psychiatric Research*, *12*, 22–33.

Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: Development of a measure of gratitude and relationships with subjective well-being. *Social Behavior and Personality*, *31*, 431–452.

Watson, D., & Clark, L. A. (1999). *The PANAS-X: Manual for the Positive and Negative Affect Schedule – Expanded Form*. Retrieved February 21, 2008, from http://www.psychology.uiowa.edu/faculty/Clark/PANAS-X.pdf

Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, *98*, 219–235.

Winkielman, P., & Cacioppo, J. T. (2001). Mind at ease puts a smile on the face: Psychophysiological evidence that processing facilitation elicits positive affect. *Journal of Personality and Social Psychology*, *81*, 989–1000.

Winkielman, P., & Schwarz, N. (2001). How pleasant was your childhood? Beliefs about memory shape inferences from experienced difficulty of recall. *Psychological Science*, *12*, 176–179.

Wood, J. V., Perunovic, W. Q. E., & Lee, J. W. (2009). Positive self-statements: Power for some, peril for others. *Psychological Science*, *20*, 860–866.

Young, A. S., Klap, R., Sherbourne, C. D., & Wells, K. B. (2001). The quality of care for depressive and anxiety disorders in the United States. *Archives of General Psychiatry*, *58*, 55–61.

Zautra, A. J., Davis, M. C., Reich, J. W., Nicassario, P., Tennen, H., Finan, P., et al. (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.