

Self-Administered Positive Activity Interventions

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OVER the last two decades, well-being scientists have developed and tested a variety of randomized controlled positive activity interventions. Inspired by observations of characteristically happy and unhappy people (Lyubomirsky, 2001; Lyubomirsky & Layous, 2013), such interventions typically involve prompting participants to engage in one of two types of activities: self-oriented ones (e.g., developing one's character strengths or practicing optimism) and socially oriented ones (e.g., performing acts of kindness or engaging in more social interactions). Participants are tracked to determine whether such activities can boost happiness within a single session or over longer practice periods, typically between one and six weeks. Converging research suggests that positive activities increase positive cognitions and behaviors and fulfill basic psychological needs such as relatedness, competence, and autonomy (Lyubomirsky & Layous, 2013). Moreover, these activities not only improve happiness but also promote characteristics and resources that contribute to success in broader life domains, including relationships, work performance, and physical health (Lyubomirsky, King, et al., 2005).

Meta-analytic evidence indicates that positive activity interventions, on average, contribute to well-being ($r = .29$; $d = 0.34$) and alleviate depression ($r = 0.31$, $d = 0.23$; Bolier et al., 2013; Sin & Lyubomirsky, 2009). Although positive activities are known to boost well-being for happiness seekers, on average, particular features of the happiness seeker (e.g., their personality, motivation, or demographic background) and features of the activity itself (e.g., whether it is self- or other-oriented, as well as its "dosage" or frequency of administration) interact to determine person-activity fit, rendering particular positive activities optimally suited for some happiness seekers and not others.

Because positive activities such as expressing gratitude or doing kind acts are self-administered, low-cost, non-stigmatizing, and not resource-intensive, they are relatively simple to carry out, making them particularly attractive to undergraduate populations. As a result, many academic campus-based and online courses focused on applying well-being science—including the teaching of positive practices—have been created and popularized (Yaden et al., 2021). A fall 2021 survey of more than 33,000 undergraduates revealed that 72.8% reported experiencing moderate to serious psychological distress (American College Health Association, 2022), suggesting the critical need for addressing positive mental health among college students. Applied well-being courses have been promisingly shown to promote well-being to a greater extent than control courses (Yaden et al., 2021), indicating the potential for positive activity interventions to be administered at scale.

Culture and diversity are important factors when considering the landscape of well-being and its promotion at universities. Survey research indicates notable demographic differences in psychological well-being at the start of college and changes to psychological well-being as

the first year of college unfolds (Bowman, 2010). Comparing psychological well-being levels at the beginning of college, women tend to score higher than men; Hispanics rank higher than Whites; Asian/Pacific Islanders rank lower than Whites; higher-income students rank higher than those from middle-income and low-income families; and being at least 20 years old (i.e., starting college at a nontraditional age) is associated with lower psychological well-being. With respect to changes in psychological well-being, women report greater gains than men; Whites report greater gains than Asian/Pacific Islanders, and students with higher high school GPAs report greater gains than those with low high school GPAs. Moreover, first-generation students report decreases in psychological well-being. Findings such as these highlight differential advantages in psychological well-being at the start of college and how demographic factors may impact psychological well-being trajectories.

Self-Oriented Interventions

Foundational research in the well-being intervention space began by elaborating the cognitive and motivational differences characterizing happy and unhappy people (Lyubomirsky, 2001) and empirically investigating positive human experiences and traits (Seligman & Csikszentmihalyi, 2000). In this section, we review literature on self-oriented well-being interventions conducted with college students, with a specific focus on four particular cognitive and motivational happiness-increasing strategies: goal pursuit, character strength development, the practice of optimism, and the disruption of rumination. We have selected illustrative self-oriented positive interventions; additional relevant and worthy studies were omitted due to space constraints.

Goal Pursuit

Pursuing and attaining personal goals contribute to psychological well-being and growth. Among college students, both goal content and motives impact well-being. With regard to goal content, holding extrinsic desires (e.g., for fame, image, and money) is negatively related to well-being. With regard to motives, pursuing goals that others have assigned instead of ones that were freely generated and endorsed is costly to well-being (Sheldon et al., 2004). Accordingly, one way to enhance well-being among college students is to help them generate and pursue self-authored goals aligned with their values (i.e., goals with “organismic integration”; Sheldon et al., 2002). A randomized controlled goal pursuit intervention with undergraduates focused on the creation and pursuit of integrated goals found that goal progress was associated with higher affective well-being and vitality (Sheldon et al., 2002). Importantly, only those high in organismic integration at the start of the intervention reported significant goal progress and greater well-being from before to after the intervention. The finding implies that only students who are already highly organismically integrated (i.e., those who hold goals aligned with their values and have freely chosen to pursue them) are prepared to benefit from such interventions. Future research is warranted to determine how best to support students who need more initial encouragement and assistance generating integrated goals.

In addition to prompting college students to develop integrated goals, well-being scientists have empirically tested other goal pursuit strategies. Across two experimental studies, for example, college students engaged in healthier eating practices more frequently and with greater ease when they were encouraged to develop goal identities (e.g., “I am a healthy eater”) than when they were asked to develop goals plans more broadly (e.g., “I will eat healthy by doing XYZ”; Dominick & Cole, 2020). Another goal pursuit strategy that

facilitates goal achievement among college students in domains such as getting work done over winter break (Gollwitzer & Brandstätter, 1997) and abstaining from drinking (Ehret & Sherman, 2018) involves implementation intentions. These involve if-then plans based on a context cue followed by an automatic response (e.g., “If I am in the library . . . then I will study”). Although these interventions cited do not target well-being per se, meta-analytic evidence indicates a significant association between successful goal progress and subjective well-being ($\rho = 0.43$; Klug & Maier, 2015), indicating that promoting goal attainment among college students is one viable way to promote well-being.

Character Strength Development

Another line of research in the positive intervention literature focuses on the development of character strengths, or positive human attributes such as bravery and kindness (Peterson & Seligman, 2004). Implementing experimental interventions as part of undergraduates’ coursework to cultivate character strengths has produced a variety of well-being benefits. For example, college students who took a character-strength-focused course reported improved positive emotion, relationships, happiness, accomplishment, engagement, and health, as well as diminished negative emotion and loneliness, relative to students who took a control course (Smith et al., 2021). In this course, students learned about character strengths, developed and pursued their own character strength goals, and, finally, were given opportunities and extra credit for using character strengths for the benefit of others and the community.

Recent theorizing motivated by a different but popular taxonomy of strengths (StrengthsFinder; Gallup, 2017) offers special considerations for how strengths interventions can be tailored for Gen Z (those born 1995–2010; Seemiller & Clayton, 2019). Researchers have offered recommendations for strengths interventions broadly based on known characteristics of Gen Z, a generation with several qualitative features distinct from the preceding generation. Compared with millennials, who tend to be motivated by financial rewards and performance feedback, members of Gen Z are driven by desires to impact others’ lives, commitment to follow-through so as not to disappoint others, and advocacy (Seemiller & Clayton, 2019). Moreover, while millennials tend to prefer interpersonal and group learning in university settings, Gen Z students prefer intrapersonal, video-based, and applied learning formats. Such observations are likely to bear on the delivery of future strengths-based interventions, particularly for the latest generation of rising adults.

Practicing Optimism

Holding favorable expectations for the future (i.e., optimistic thinking) is positively related to well-being. Meta-analytic evidence suggests that interventions designed to increase optimism have an average effect of $g = 0.41$ (Malouff & Schutte, 2017). A common positive activity intervention for cultivating optimism is a reflective writing exercise called “best possible selves” (BPS), in which participants write about their future self while imagining that everything in their lives has gone as well as it could (King, 2001). The very first BPS intervention was administered among an undergraduate sample over four consecutive days and found benefits for positive affect and psychological well-being at post-test (King, 2001).

Subsequent studies have tested specific aspects of optimism interventions that may moderate their effects. For example, a four-week experimental intervention with college students using the BPS procedure tested two aspects of intervention design on well-being outcomes: online versus in-person delivery format and peer testimonials (Layous, Nelson, et al., 2013). Completing the BPS activity increased positive affect and a sense of flow (i.e., feelings of

immersion and enjoyment in a particular activity). Furthermore, the results suggested that a peer testimonial enhanced positive outcomes, while no differences emerged between online and in-person delivery. These findings imply that beliefs about the efficacy of the intervention, as bolstered by the endorsement of peers, may optimize benefits and that, at least in the case of the BPS exercise, the efficient and resource-effective format of online intervention delivery can be as efficacious as in-person administration.

Disrupting Rumination

Rumination is the act of repeatedly dwelling on oneself and unpleasant information, such as personal failures (Nolen-Hoeksema et al., 2008), and is consequential for well-being and adjustment among college students. For example, rumination can negatively impact performance in academic and work contexts (Lyubomirsky et al., 2011) and predicts the onset of negative outcomes such as psychological distress (Morrison & O'Connor, 2005) and depressive symptoms when combined with avoidance coping (Bjornsson et al., 2010). Fortunately, studies suggest that rumination can be curbed through intervention strategies such as distraction.

With respect to academic and work achievement, a series of three studies demonstrated that when participants are induced to fail at an analytic task, they report dwelling (rumination) that subsequently compromises their performance on a GRE verbal exam, as indicated by lower ability to concentrate, lower reading comprehension, and longer completion time (Lyubomirsky et al., 2011). Importantly, these negative consequences were particularly pronounced among those who were characteristically unhappy, while happier participants were buffered against these effects. Encouragingly, however, when unhappy individuals were instructed to distract themselves for just eight minutes after the “failure” (compared with being instructed to dwell on their character, their reactions, and their strivings), they were buffered against the negative consequences of their initial poor performance. The distraction procedure, which involves thinking about neutral and impersonal items (e.g., clouds forming in the sky, the shape of California), offers one approach for those prone to rumination (i.e., those who are unhappy) to break the cycle of dwelling.

Socially Oriented Interventions

Consistently happy individuals tend to be more sociable and agreeable, on average, compared with unhappy people (Diener & Seligman, 2002). Although being social is integral to well-being, many young adults, including college students, have encountered limitations in the development of their interpersonal skills, especially during the COVID-19 pandemic. In particular, members of Gen Z feel more isolated and experience higher levels of anxiety, depression, and loneliness than previous generations (Twenge, 2017).

Promisingly, intervention studies targeting social behaviors have yielded positive benefits for subjective well-being (Regan & Lyubomirsky, 2022; Regan, Radošić, et al., 2022). These social interventions can be particularly useful to college students as they navigate dynamic life changes. The following socially oriented interventions are discussed here: acts of kindness, expressing gratitude, and acting more extraverted. Again, we focus on select studies and do not aim to provide a comprehensive review.

Acts of Kindness

Acts of kindness are intentional actions undertaken to benefit another person, typically involving some cost to oneself in terms of time, effort, or resources (Cregg & Cheavens, 2022;

Regan, Radošić, et al., 2022). Substantial evidence suggests that prosocial behavior can lead to increases in well-being not only for the beneficiary but also for the benefactor (e.g., Layous, Nelson, et al., 2013; Lyubomirsky, Sheldon, et al., 2005; Nelson et al., 2016). For example, undergraduates who performed five random acts of kindness per week over six weeks (e.g., dropping coins into a stranger's parking meter, helping a friend with a problem) reported increases in subjective well-being compared with a no-treatment control group (Sheldon & Lyubomirsky, 2004).

Furthermore, acts of kindness can be performed for a specific individual but can also be carried out to benefit the world more broadly (e.g., volunteering for a worthy cause). In a between-subjects design, an experiment revealed that acts of kindness both toward other individuals and the world in general led to increased psychological flourishing, increased positive emotions, and decreased negative emotions (Nelson et al., 2016).

Surprisingly, recalling acts of kindness appears to have well-being effects comparable to those of actually performing them. In a three-day between-subjects study, undergraduates assigned to perform acts of kindness for others or to recall acts of kindness for others experienced similar gains in subjective well-being compared with a measurement-only control condition (Ko et al., 2021). These findings indicate that simply recalling kind acts that one has done in the past can elicit similar benefits to those of actually enacting new kind acts. Overall, the evidence points to both performing and recalling acts of kindness as effective positive interventions (Curry et al., 2018), representing a low-cost approach to improving well-being among college populations (Shillington et al., 2021).

Expressing Gratitude

Considered both a trait and an emotional state, gratitude involves recognizing and appreciating the positive aspects of one's life while acknowledging that other people's deliberate actions have benefited them (Regan, Walsh, et al., 2022; Walsh et al., 2022). Numerous studies have shown that expressing gratitude can increase happiness, boost social connection, and reduce loneliness (e.g., Armenta et al., 2022; Bono & Sender, 2018; Dickens 2017; Oriol et al., 2020). Furthermore, expressing gratitude can help students build social bonds and relationships through integration and cooperation. For example, a naturalistic study conducted in college sororities found that gratitude was associated with social relationship formation and relationship maintenance a month after younger members had received gifts from older members (Algoe et al., 2008). Further, younger members' gratitude predicted feelings of integration within the sororities.

Expressing gratitude can vary by target (social vs. nonsocial), format (lists vs. letters), and medium (letters vs. social media posts vs. texts), and these differences bear on well-being benefits. For example, writing letters, a potentially more powerful and expressive format, produces stronger well-being effects than creating gratitude lists (Regan, Walsh, et al., 2022). Moreover, writing social gratitude letters (where the target of gratitude is a specific person, such as one's mother) produces greater feelings of gratitude, elevation, and positive affect than writing gratitude letters with other formats and types (e.g., appreciating one's opportunities or good health; Regan, Walsh, et al., 2022). Finally, an experiment with a large undergraduate sample that compared the medium of gratitude expression revealed that those who expressed gratitude via text reported greater boosts in social connectedness and support than those who expressed gratitude by writing only to themselves or over social media (Walsh et al., 2022). These results indicate that texting, an accessible and relatively low-effort communication tool, offers college students an easily scalable gratitude intervention format.

Acting More Extraverted

Trait extraversion, which reflects a tendency to be sociable, energetic, and novelty-seeking, is robustly positively associated with subjective well-being (Costa & McCrae, 1980; DeNeve & Cooper, 1998; Lucas et al., 2000). Although traits are generally stable, intervention research conducted with college students has shown that enacting extraverted behaviors for some duration of time—typically one week—produces well-being benefits for both introverts and extraverts (Margolis & Lyubomirsky, 2020; van Allen et al., 2021).

Some barriers to acting more sociable may be that people of all ages, including college students, tend to overestimate how much alone time is conducive to well-being (Kardas et al., 2022) and underestimate how well they are liked (Boothby et al., 2018) and how enjoyable relatively long conversations can be (Kardas et al., 2022). In one study, for example, college students continually underestimated how much their college suitemates liked them in four of five surveys administered over an academic year and did not accurately assess how well they were liked until the end of the school year (Boothby et al., 2018). College presents a unique period of life with enormous opportunities for affiliation and social interaction, and encouraging undergraduates to take more social risks to obtain social rewards is one path for enhancing student well-being.

Even brief social exchanges can have beneficial effects on well-being. In one experiment, students experienced greater positive affect when they thanked or greeted a university shuttle driver compared with when they did not interact with their driver (Gunaydin et al., 2020). Such results imply that equipping students to see and enact opportunities for meaningful, brief exchanges could also help improve their college experience and happiness.

Cultural Considerations

Positive activity interventions, which prompt participants to practice self-oriented activities such as optimism and socially oriented activities such as kindness, have been shown to boost happiness for people on average. However, features of the activity itself and features of the person participating in that activity partially determine a critical concept called person-activity fit, that is, the degree to which an activity is suited to boosting well-being of a given happiness seeker (Lyubomirsky & Layous, 2013). The subsequent sections describe potential ways that cultural and diversity considerations may impact activity fit, and, ultimately, intervention success, in self-oriented and socially oriented well-being interventions. As in previous sections, the studies presented here are meant to illustrate cross-cultural differences in the effects of positive activity interventions and do not represent a comprehensive review of the literature.

Self-Oriented Interventions

Goal Pursuit

As previously noted, the kind of motivation that inspires goal pursuit among college students is consequential for well-being (Sheldon et al., 2004). Generally, goals that are self-authored and pursued for their own enjoyment are conducive to well-being, and goals that are imposed by others (e.g., parents, friends) are detrimental to well-being. One aspect that may moderate the relationship between goal pursuit motivation and well-being is the independent versus interdependent orientation of one's culture. A series of studies revealed

that pursuing goals independently for enjoyment increased goal attainment and consequent well-being for White college students but not for Asian American students, and pursuing interdependent goals to appease parents and friends increased goal attainment and subsequent well-being for Asian American students but not for White students (Oishi & Diener, 2001). Moreover, among a Japanese-only sample, pursuing independent goals was more conducive to goal progress relative to pursuing interdependent goals, but goal progress on independent goals did not predict gains in well-being (Oishi & Diener, 2001). Such findings highlight the importance of cultural values contouring the relationship between goals and well-being and, ultimately, the affective consequences of goal pursuit interventions.

Character Strengths

Surprisingly, research suggests that the prevalence of character strengths across countries is strikingly similar. In two large samples, including more than 117,000 adults from the U.S. and 54 nations in one sample (Park et al., 2006), and more than 1 million adults from the U.S. and 75 nations (McGrath, 2015), the most commonly endorsed strengths were kindness, fairness, honesty, and judgment, and the least endorsed strengths were prudence, modesty, and self-regulation. The taxonomy of character strengths was built with universality in mind, after all (Peterson & Seligman, 2004), and cross-national surveys suggest that certain values are broadly desirable across societies. Although cross-cultural research often highlights differences between members of different cultures, in the case of character strengths, a number of strengths seem to be admired as part of common humanity. Further work is needed, however, to establish whether character strength interventions differentially impact those of varying cultural backgrounds.

Practicing Optimism

To date, no known experimental intervention studies have compared the relative efficacy of optimism interventions among college students of various cultural backgrounds. Furthermore, a meta-analysis assessing potential cross-cultural differences in mean levels of optimism among 22 countries found that on average, people are rather optimistic ($M = 63.14$ out of 100), with no significant differences in optimism observed between countries (Fischer & Chalmers, 2008). In addition, two cultural moderators emerged: greater individualism (compared with collectivism) and greater egalitarianism (compared with strong hierarchy) corresponded to greater optimism. The finding that people are more optimistic than not, regardless of nationality, perhaps reflects the broader universal tendency to be in a positive mood by default (Diener et al., 2015). Some thinkers maintain that this positivity offset is an evolutionary advantage that allows for exploration and striving (Diener et al., 2015). Thus, plausibly, the universality of optimism may reflect the general adaptive benefits of expecting favorable outcomes and living life proactively. Further research should aim to test directly the cultural universality versus differential effects of optimism interventions, particularly among undergraduates.

Disrupting Rumination via Distraction

At present, no experimental studies provide insight into culturally informed effects of interventions designed to disrupt rumination. Some research, however, sheds light on cross-cultural differences in the link between rumination and well-being that could inform future interventions. For example, one study found that in the U.S., relatively happy Asian American students reported greater rumination and depressive symptoms compared with White students, and happiness buffered the relationship between rumination and anxiety for White students but not for Asian American students (Tsai et al., 2011). The researchers

suggested that these results may reflect the Eastern conception of optimal well-being not as an elevated state of happiness but as a state of contentment in which positive and negative experiences can be integrated. The implication is that rumination may have different functionality for Asian Americans compared with Whites and does not have to be minimized to achieve happiness.

Another study found that rumination may be less costly to those of other national backgrounds compared with U.S. participants. This study compared the effects of co-rumination (discussing personal problems and negative feelings with others) and co-brooding (passively dwelling and catastrophizing problems with others) on the phone among students in the U.S. and students in Italy. Interestingly, co-brooding was associated with anxiety and depression among U.S. undergraduates but not among Italian undergraduates (Murdock et al., 2019). Research efforts such as this highlight that cross-cultural research can go beyond East versus West comparisons to test more nuanced distinctions (e.g., comparing Western countries with one another, comparing U.S. vs. European populations, and testing populations within East Asia with greater specificity).

Socially Oriented Interventions

Acts of Kindness

Cross-cultural studies indicate that practicing kindness may benefit both Western and Eastern cultures, although in slightly different ways. A set of studies, for example, revealed two key findings. First, when collectivist culture was primed, bicultural students in Hong Kong reported greater affective well-being after recalling kind acts they performed for friends and family than they did after recalling kind acts for strangers. Second, Hong Kong undergraduates, but not U.S.-based undergraduates, reported greater affective well-being when recalling kind acts performed for friends and family than for strangers (Shin et al., 2021). These findings imply that, for members of collectivist cultures that emphasize interdependence and group harmony, acts of kindness performed for close ties may be more impactful for well-being than acts of kindness performed for weak ties.

Expressing Gratitude

Gratitude may differentially impact the well-being of students from various cultural-ethnic backgrounds (Shin & Lyubomirsky, 2017). In an experiment comparing the hedonic effects of expressing gratitude, performing acts of kindness, and a control activity, participants from the U.S. and South Korea experienced similar increases in well-being after performing acts of kindness, but Americans reported significantly greater well-being benefits after practicing gratitude compared with South Koreans (Layous, Lee, et al., 2013). Among South Koreans, expressing gratitude may have led to increases in feelings of guilt and indebtedness, which might have countered any positive effects. In another study, Latinx Americans and European Americans rated gratitude experiences as more desirable and appropriate and reported expressing gratitude more frequently and intensely in the past week than East Asian Americans (Corona et al., 2020). Again, such research underscores that not all positive activities provide equal well-being benefits across cultures and that activity fit, particularly culture-activity fit, is an important factor predicting intervention success.

Acting More Extraverted

Although culturally informed research testing extraverted behavior interventions is limited, there are some indications that these types of interventions may be more beneficial for those

from cultural backgrounds in which extraversion is more socially desirable. For example, in a two-week extraverted behavior intervention (Margolis & Lyubomirsky, 2020), Hispanic students reported greater well-being as a result of acting more extraverted compared with non-Hispanic students.

The social desirability of extraversion may bear on well-being in other ways that could be consequential for college students. In U.S. student and nationally representative samples, extraversion predicts life satisfaction, but the relationship between extraversion and life satisfaction is weaker in the U.K., Germany, and Japan (Kim et al., 2018). The social desirability of extraverted behavior in Western culture could also compromise introverts' well-being when they perceive deficits in their own personalities (Lawn et al., 2019). Broadly, such research indicates that acting more extraverted could be conducive to well-being for members of some cultures, less impactful for those of other cultures, or even harmful for those who sense that their naturally introverted personalities are not culturally valued.

Summary and Future Directions

In this chapter, we have reviewed positive activity interventions that are both self- and socially oriented and highlighted their relevance for college student populations. Given the prevalence of psychological distress during college (American College Health Association, 2022), promoting positive mental health among undergraduate samples is crucial, and positive activity interventions, which are typically self-administered and non-resource-intensive, can serve as useful tools in this endeavor. We also summarized insights regarding cultural considerations when administering positive activity interventions among higher education samples. Further work is needed to design, test, and optimize positive activities for individuals of disparate backgrounds.

Ideally, interventions should be targeted, tailored, and timely for those who participate (Cohen et al., 2017). Unfortunately for both psychological scientists and the targets of interventions, convenience and access have encouraged interventionists to draw from samples that are largely Western, educated, industrialized, rich, and democratic (WEIRD; Henrich et al., 2013). One review found, for example, that 78% of randomized controlled studies testing positive activity practices used WEIRD samples (Hendriks et al., 2019).

As positive activity intervention science advances, further work is needed to understand cultural differences in conceptions of well-being, values guiding socially desirable behavior, and norms that enable or discourage engagement in certain positive activities. With respect to undergraduate well-being specifically, we call for efforts to develop culturally conscious interventions to support college students whose well-being could be vulnerable and to bolster positive changes that benefit the undergraduate experience and postgraduate outcomes.

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