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An Extension of the Savoring Approach to Increasing Help-Seeking for Depression:
Reducing Self-Focus Through a Writing Task and Savoring PSA

By

Tasha Straszewski

Claremont Graduate University

2019

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APPROVAL OF THE DISSERTATION COMMITTEE

This dissertation has been duly read, reviewed, and critiqued by the Committee listed below, which hereby approves the manuscript of Tasha Straszewski as fulfilling the scope and quality requirements for meriting the degree of Doctor of Philosophy in Psychology.

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Abstract

An Extension of the Savoring Approach to Seeking Help for Depression:

Reducing Self-Focus Through a Writing Task and Savoring PSA

By

Tasha Straszewski

Claremont Graduate University: 2019

Past depression mass media campaigns have been utilized to increase mental health literacy, decrease stigma, or a combination of the two. However, among these campaigns, some have not been effective, and some have resulted in iatrogenic effects (see Gulliver, Griffiths, & Christensen, 2010, for examples of both). In hopes of improving the effectiveness of depression campaigns, laboratory studies have utilized persuasion approaches to increase help-seeking among individuals with heightened depressive symptomatology. More recently, Siegel and Thomson (2016) turned to the utility of infusing individuals with positive emotion to increase help-seeking intentions (i.e., positive emotion infusions; PEIs) and found initial success with elevation but not gratitude. Their results highlighted the need for continued exploration into the application of PEIs to help-seeking. Following these studies, Straszewski and Siegel (2018) considered another test of the PEI approach using savoring (i.e., attending to and appreciating positive experiences as a way to up-regulate one's positive emotional state; Bryant, 1989). Expanding on the promising results of this prior research, the overall goal of this dissertation was to test the ecological validity of the savoring PEI approach.

The first step (Study 1) was to identify the strongest version of savoring to use in a savoring-public service announcement (S-PSA). Considering depressogenic schemas are more dysfunctional when information is greater in self-relevance (Beck, Rush, Shaw, & Emery, 1979),

it was hypothesized that reducing savoring's self-focus may result in greater help-seeking intentions. As such, Study 1 ($N = 1,308$) compared the effects of five savoring writing tasks that varied in self-focus to a neutral control writing task: vicarious savoring, self-distanced savoring, relational savoring, combination savoring, and personal savoring. Results of Study 1 indicated partial support for the hypotheses: relational savoring was associated with greater help-seeking intentions than the neutral control and combination savoring across a series of analyses. However, relational savoring was not significantly better or worse than the other three savoring conditions. Since relational savoring was the only condition that differed significantly from the neutral control and at least one other condition, relational savoring was selected as the approach to test in Study 2.

Participants ($N = 1,238$) in Study 2 were randomly assigned to either the S-PSA, a comparison PSA, or a basic control video. They completed measures of help-seeking attitudes, help-seeking intentions, and a 1-item proxy of help-seeking behavior. Although the S-PSA was predicted to lead to more positive help-seeking attitudes, greater help-seeking intentions, and a greater likelihood to engage in help-seeking behavior than the comparison PSA and basic control, the hypotheses were not supported. Among the exploratory analyses, only the comparison PSA was associated with more positive help-seeking attitudes than the basic control video among individuals who self-reported paying full attention to the videos. These results are in line with prior depression help-seeking studies that found success with a manipulation used in a writing task but null results when used in a video (Hollar & Siegel, 2019b; Tan & Siegel, 2017). Together, these studies shine a light on the possibility that online videos for cognitive tasks may not induce a sufficient level of effortful processing (Hartlage, Alloy, Vázquez, & Dykman, 1993) necessary to engage individuals with heightened depressive symptomatology

thereby minimizing automatic negative thinking (Beck, 1967) and spontaneous rumination (Mennen, Norman, & Turk-Brown, 2019). As such, the two studies in this dissertation contribute not only to the line of research on the PEI approach but also to a deeper understanding of the ways to better tailor help-seeking strategies to individuals with heightened depressive symptomatology.

Dedication

This dissertation is dedicated to Dina Sansone, my paternal grandmother, who sparked my initial interest in depression research. Although she only lived to hear about the first couple months of my doctoral program, she continues to be a source of inspiration. I am forever grateful for the human she was and the impact she had on not just my life but the lives of all who knew her.

Acknowledgments

I want to thank my parents, my sister, my friends, and my committee members for their support over the years. Each of you has had a significant impact on my life. I would like to extend a special thank you to Dan and Mary, as you have been my role models through example in terms of dedication, work ethic, perseverance, and, most importantly, what it means to be a good person. To my sister, Julia, you have been an incredibly influential person in my life over the years and have taught me so much. I would not be who I am or be here today without you. To Dr. Siegel, Dr. Crano, and Dr. Alvaro, I have the utmost respect for you and your work, and I am grateful to have had the opportunity to learn from you at Claremont Graduate University. To Dr. Siegel, it takes a special person to be not only a research advisor but a remarkable mentor. Thank you for your guidance, your patience, and your continued support over the years.

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CHAPTER 1

Introduction

More than 300 million people worldwide have Major Depressive Disorder (MDD; World Health Organization [WHO], 2019), a mood disorder that negatively impacts all areas of one's life. According to the results of the 2018 National Survey on Drug Use and Health, more than 17.7 million U.S. adults reported at least one major depressive episode in the last year, indicating an approximate 25% increase since 2005 (Substance Abuse and Mental Health Services Administration, 2019).

Although help for MDD is available in the forms of antidepressant medications and psychological therapies (e.g., cognitive behavior therapy; Anxiety and Depression Association of America, 2018), many do not receive the help they need. An estimated 1 in 5 individuals with moderate, and 1 in 3 individuals with severe, depressive symptomatology reported seeking help within the last year (Pratt & Brody, 2014). According to WHO (2019), help-seeking rates can be as low as 10% in some countries. Further, results of the National Comorbidity Survey Replication indicated that the median duration of delay in seeking professional help for Americans is approximately eight years following MDD onset, and only 37.4% of individuals with MDD make contact within the first year (Wang et al., 2005).

Prior attempts to increase help-seeking for depression. Being aware of the life-threatening implications of not seeking help, researchers have used mass media campaigns to target existing barriers to seeking help (see Gulliver, Griffiths, Christensen, & Brewer, 2012, and Klimes-Dougan, Klinbeil, & Meller, 2013, for reviews). Some campaigns focused on increasing mental health literacy (e.g., Depression Awareness, Recognition, and Treatment; Regier et al., 1988), while others focused on reducing stigma (e.g., Changing Minds; Crisp, Gelder, Goddard,

& Meltzer, 2005) or a combination of the two (e.g., Defeat Depression; Paykel, Hart, & Priest, 1998). However, although created to help those with heightened depressive symptomatology, some campaigns have not been effective, and some have resulted in iatrogenic effects (see Gulliver, Griffiths, & Christensen, 2010, for examples of both).

Difficulty in persuading those with depression to seek help. According to Siegel et al. (2017), the ineffectiveness of past campaigns can be partially attributed to the lack of theory and consideration for the ways individuals with heightened depressive symptomatology perceive help-seeking messages. According to Beck's (1963) cognitive theory of depression, individuals with MDD see the world through depressogenic schemas (i.e., enduring, negatively-skewed attitudes, beliefs, and assumptions). Depressogenic schemas are dysfunctional, as they distort the way individuals process information, especially if the information is self-relevant (Beck, Rush, Shaw, & Emery, 1979). In addition to seeing oneself, the world, and the future in a negative light (i.e., negative cognitive triad; Beck, 1967), people with MDD also are influenced by cognitive distortions (e.g., polarized thinking, arbitrary inference, and selective abstraction; Beck, 1963). Because of the cognitive processing pattern associated with MDD, individuals experiencing heightened depressive symptomatology tend to be difficult to persuade to seek help; cognitive distortions can lead to resistance of, reactance to, and misinterpretation of help-seeking information (see Siegel, Lienemann, & Rosenberg, 2017, for a review). As such, even if messages are put forth with the best intentions, some help-seeking messages may result in unintended, untoward effects. For example, a message that reads, "Untreated depression kills thousands of Americans a year—through suicide and by intensifying the symptoms of other life-threatening illness," could be counterargued by someone as, "So, many people who are

depressed do kill themselves. I guess my family would understand. Maybe I should. Everyone else does”(Siegel et al., 2017, p. 9).

Positive Steps Toward Increasing Help-Seeking for Depression

Being aware of the potential for untoward effects due to the complex cognitive processing associated with MDD, researchers began to test new approaches to increase the effectiveness of help-seeking messages among individuals with heightened depressive symptomatology. Siegel, Lienemann, and Tan (2015) used a mistargeted persuasive approach (i.e., perceiving that a message is intended for someone else) to reduce counter arguing and promote help-seeking. In their study, individuals with heightened depressive symptomatology who viewed a mistargeted print advertisement (e.g., “Do you know someone who is feeling distressed?”) reported greater help-seeking intentions from a romantic partner and close friend compared to a direct print advertisement in Study 1. Replicating their first study using videos, Siegel et al. found that the mistargeted video lead to more favorable attitudes toward seeking help and greater intentions to seek help from a website compared to a direct video or no video in Study 2.

Expanding on prior studies that have tested persuasive approaches to increase help-seeking, researchers have since turned to the use of positive emotion infusions (PEIs; i.e., utilizing the temporary uplift associated with being in a positive emotional state to increase help-seeking; Siegel & Thomson, 2016) as a motivational approach to address low help-seeking rates. This initial PEI approach led to a series of studies that utilized savoring, a method of inducing positive emotions by reflecting on a past positive experience, to increase help-seeking (Straszewski & Siegel, 2018, 2019; Straszewski, Silva, Mansfield, & Koletar, 2017). Following this line of research, the current set of studies complement prior laboratory research efforts and

serve as an additional test of the PEI approach to increase help-seeking among individuals with heightened depressive symptomatology using savoring.

CHAPTER 2

Review of the Literature

Unlike prior studies that have applied persuasion approaches to increase help-seeking for individuals with heightened depressive symptomatology (e.g., Siegel et al., 2015), as previously introduced in the prior section, Siegel and Thomson (2016) tested the utility of positive emotions as a novel motivational approach to seeking help. In prior studies, researchers have found success in the application of positive emotion to increase subjective well-being (Bolier, Haverman, Westerhof, Riper, Smit, & Bohlmeijer, 2013), decrease depressive symptomatology (Bolier et al., 2013; Sin, Della Porta, & Lyubomirsky, 2011), and reduce health risk behaviors such as suicide attempts (Yen et al., 2013). Especially relevant to individuals with heightened depressive symptomatology, positive emotion also has been found to influence cognition. For example, positive mood can influence judgment by increasing the likelihood that positive information will be retrieved (e.g., Isen, Shalcker, Clark, & Karp, 1978). For those experiencing MDD symptoms, a positive state could temporarily minimize the prevalence of depressogenic schemas and help bring any existing positive help-seeking attitudes into consciousness. Positive affect also is linked to increased cognitive flexibility in cognitive categorization tasks (Isen & Daubman, 1984), broadened cognitive scope through the building of one's psychological, physical, social, and intellectual resources (Fredrickson, 2001), improved problem-solving and decision-making abilities (Fredrickson & Branigan, 2005; Isen, 2001; Isen, Daubman, & Nowicki, 1987), less anchoring (i.e., maintaining an incorrect hypothesis by refuting conflicting evidence; Estrada, Isen, & Young, 1994), and among high-arousal positive emotions, greater motivational intensity (i.e., the impulse to move toward or away from a stimulus; Harmon-Jones, Gable, & Price, 2012). In line with these outcomes, Siegel and Thomson hypothesized that a

temporary boost in emotional state could make someone with heightened depressive symptomatology more inclined to consider seeking help when presented with a help-seeking opportunity.

Following from prior research on the utility of positive emotions, Siegel and Thomson (2016) began the line of research on the PEI approach by first testing 1) if individuals with heightened depressive symptomatology could temporarily be placed in a positive state through a short intervention, and then assessing 2) if this motivational approach could increase one's intentions to seek help. As such, Siegel and Thomson selected two discrete positive emotions: elevation (i.e., the uplifted feeling associated with being a spectator of moral beauty) and gratitude. They then tested if each emotion could be elicited through a story and an autobiographical recall task. Among individuals with heightened depressive symptomatology, both elevation tasks (i.e., reading an elevating story or completing an autobiographical recall task) lead to greater self-reported elevation (Study 2a), and both gratitude tasks resulted in greater self-reported gratitude (Study 2b), compared to the control conditions. These results indicated that a temporary positive mood induction could boost the positive emotional state for someone experiencing mild to severe depressive symptomatology.

To address whether the PEI approach could increase help-seeking intentions, their next set of studies (i.e., Study 3a and Study 3b) tested the elevation and gratitude manipulations on a measure of help-seeking intentions. Their results demonstrated that invoking feelings of elevation through a story led to greater help-seeking intentions compared to the control group who received a page of instructions to go on to the next page. However, this pattern of results was not evident among participants that completed an elevation autobiographical recall task. For gratitude, neither the story nor the autobiographical recall task used to induce gratitude was

effective. The results of this initial test of the PEI approach underscored the potential for the use of positive emotions to change help-seeking intentions but also highlighted the need for continued exploration. Following Siegel and Thomson, Straszewski and Siegel (2018) tested the use of savoring as a new PEI approach.

Savoring

Savoring is “a process through which people attend to positive experiences and engage in thoughts and behaviors that regulate positive feelings that arise from these experiences” (Smith & Bryant, 2017, p. 141). Originally introduced as one of the four factors of perceived control (i.e., perceived control over positive emotions; Bryant, 1989), savoring is similar to coping. However, unlike coping, which is the down-regulation of negative emotions, savoring is the up-regulation of positive emotions (Bryant, 1989). Savoring differs from a state of mindfulness, during which one is aware of both positive and negative sensations experienced in the present moment (Brown & Ryan, 2003), and flow, a state in which one has little to no conscious awareness (Csikszentmihalyi, Abuhamdeh, & Nakamura, 2005). One can savor positive experiences that already occurred, are happening in the present moment, or will occur in the future (Bryant & Veroff, 2007). To savor, one can engage in cognitive and behavioral strategies to increase their appreciation of a positive experience and up-regulate their positive emotional state (e.g., counting blessing, taking mental snapshots while an event occurs, telling someone about one’s positive experience, and increasing one’s sensory-perceptual sharpening; Bryant & Veroff, 2007). For these strategies to be effective, one must be 1) “relatively free of pressing social and esteem concerns,” 2) “focused on attending to their present experience,” and 3) aware “of the positive feelings they are experiencing” (Bryant & Veroff, 2007, p. 204).

Prior savoring applications. Testing the utility of savoring through savoring-based interventions, researchers have found success in improving subjective well-being outcomes such as positive emotion (see Bryant & Veroff, 2007, for examples), happiness (e.g., Bryant, Smart, & King, 2005; Bryant & Veroff, 2007; Kurtz, 2015, Lambert et al., 2012; Quoidbach, Wood, & Hansenne, 2009), life satisfaction (e.g., Lambert et al., 2012; Wing, Schutte, & Byrne, 2006), and psychological capital (i.e., the combination of hope, optimism, resilience, and self-efficacy; Sytine, Britt, Sawhney, Wilson, & Keith, 2018). In another intervention, savoring was associated with a reduction in the number of health center visits three months after the intervention (Burton & King, 2004). In conjunction with the success of savoring on these outcomes, the application of savoring to reduce depressive symptomatology (e.g., Hurley & Kwon, 2012; McMakin, Siegle, & Shirk, 2011; Reiter & Wilz, 2016; Smith & Hanni, 2017) was what inspired Straszewski and Siegel (2018) to consider savoring to increase help-seeking for depression.

Savoring to increase help-seeking for depression. Utilizing a savoring writing task similar to that used in McMakin et al. (2011), Straszewski and Siegel (2018) tested whether a savoring writing task could be used to bolster positive emotion as a way to increase help-seeking intentions. Participants with heightened depressive symptomatology who had not yet sought help for their symptoms were randomly assigned to a 6-minute savoring writing task where they were asked to recall a positive experience that occurred in the past week. They wrote about the memory in detail and shared how they felt when the positive experience occurred. The control group also completed a writing task but were asked to describe what they did yesterday and today. Results indicated that the savoring writing task had both a direct effect on help-seeking intentions (Study 1) and an indirect effect through increased positive emotion (Study 2). Although not hypothesized, savoring also was associated with greater arousal than the control

group. It was this difference in arousal between the savoring and control conditions that led to a set of follow-up studies that examined the effects of eliciting high-arousal versus low-arousal positive emotion on intentions to seek help.

Following Straszewski and Siegel (2018), rather than having participants write about a past positive experience of their choosing, Straszewski and Siegel (2019) controlled for the type of positive experience savored, namely, savoring a past positive experience associated with a high-arousal versus a low-arousal positive emotion. Relying on Fredrickson (1998) and Russell's (1980) theorizing to select the discrete emotions to elicit for each condition, those in the high-arousal positive emotion condition were asked to write about a time they felt excited as a result of something they did; those in the low-arousal positive emotion condition completed the same task but were asked to recall a time they felt calm. Control participants wrote about what they did today and yesterday as in Straszewski and Siegel (2018). Results indicated that participants assigned to complete the high-arousal savoring task reported greater help-seeking intentions than those assigned to the control condition. The low-arousal savoring task, however, did not differ significantly from the control condition or the high-arousal savoring task, underscoring the differential effect of positive emotions as demonstrated in Siegel and Thomson (2016).

With the intention of testing the ecological validity of the results in Straszewski and Siegel (2018, 2019), this dissertation tested the utility of savoring in the form of a video (i.e., a savoring-public service announcement [S-PSA]). To create the S-PSA, however, the first step was to select the type of savoring that could result in the greatest intentions to seek help. As such, five forms of savoring were compared to a neutral writing task in Study 1 to test whether reduced self-focus could result in a stronger effect of savoring: vicarious savoring (i.e., relishing in the positive experience of others), self-distanced savoring (i.e., savoring from the perspective

of the most positive person you know), relational savoring (i.e., relishing in a shared experience; Bryant & Veroff, 2007), a combination of both vicarious savoring and relational savoring (i.e., savoring a shared experience from the perspective of the other person involved), and personal savoring (i.e., a self-focused form of savoring; Borelli, Rasmussen, Burkhart, & Sbarra, 2014, p. 1091). By reducing self-focus through vicarious savoring, self-distanced savoring, relational savoring, and combination savoring, the hope was that there would be a temporary reduction in the impact of negative biases that are typically maximized when self-relevance is high (Clark, Beck, & Alford, 1999; see Wisco, 2009, for a review) and a decrease in any dampening of one's own positive experience (Bryant & Veroff, 2007). The test of this reduction in self-focus is in line with Beck (1970), who highlighted the importance of practicing distancing to "gain objectivity towards [their] cognitions" (p. 189), and Siegel et al.'s (2015) results on the use of Walster and Festinger's (1962) mistargeted approach to increase help-seeking intentions.

Vicarious Savoring

Although savoring is typically used as a way for one to enhance or prolong enjoyment from their own positive experiences, Bryant and Veroff (2007) noted that one also could find joy in the positive experiences of others by savoring vicariously. By definition, vicarious savoring is the process where a "person reaps and holds in consciousness some pleasure" from what another individual has done (e.g., a romantic partner or friend; Bryant & Veroff, 2007, p. 11). In addition to increasing one's mood, Bryant and Veroff hypothesized that vicarious savoring has the potential to also increase one's level of emotional closeness to the subject whose experience they are savoring. Further, they proposed that greater closeness with the individual whose experience one was savoring would help maximize the potential effects of vicarious savoring. Highlighting the potential for negative effects, Bryant and Veroff warned that exclusive attention to another's

success could introduce upward social comparison. However, if one can circumvent upward social comparison, the fundamental benefit of savoring vicariously for individuals with heightened depressive symptomatology is the reduction in self-focus.

Although there is apparent utility in the use of vicarious savoring to increase help-seeking for individuals with heightened depressive symptomatology, there have been few studies on this approach. Straszewski, Silva, Mansfield, and Koletar (2017) compared vicarious savoring to the general savoring and control tasks used in Straszewski and Siegel (2018). In Study 2, vicarious savoring was manipulated by having participants first read an awe-inspiring account of a climber savoring their view as they stood on top of a snowy mountain (Bryant & Veroff, 2007) and then complete the savoring writing task from the perspective of the climber in the story. Results indicated that vicarious savoring was as effective as the general savoring task when compared to the control condition. The two savoring tasks may not have been sufficiently different, as those in the general savoring task were free to elect any past positive experience—this could have included a time someone shared something positive with them (i.e., vicarious savoring). Further, savoring an experience that happened to a close other (i.e., a loved one), as opposed to an unknown other, may have lead to a stronger vicarious savoring effect. As such, additional exploration into vicarious savoring was warranted.

Self-Distanced Savoring

As a way to help minimize the effect of depressogenic schemas and in line with Beck's (1970) therapeutic recommendations, Kross, Gard, Deldin, Clifton, and Ayduk (2012) explored the utility of taking a self-distanced perspective (i.e., taking the perspective of an outside observer) when reflecting on negative past experiences among individuals with MDD. Providing additional empirical support for Beck (1970), Kross et al. (2012) found that adopting a self-

distanced perspective as opposed to a self-immersed perspective was indeed associated with lower depressotypic thought accessibility and lower negative affect. Further, participants who self-distanced recalled fewer negative arousing details of past experiences and were more likely to analyze the events that occurred during a negative experience in a way that promoted feelings of closure.

Based on the success of self-distancing in prior research (e.g., Kross et al., 2012), Hollar and Siegel (2019b) tested whether self-distancing could be used to increase help-seeking intentions for individuals with heightened depressive symptomatology. In their first study, Hollar and Siegel found that individuals who completed a distancing writing task as opposed to an immersed task when asked to reflect on a time they had previously thought of seeking help reported greater help-seeking intentions. To assess the ecological validity of their findings, Study 2 tested the self-distancing task in the form of a video but did not find the same effects on any of the outcomes: help-seeking attitudes, help-seeking intentions, or self-stigma of seeking professional help. The writing task was again tested in Study 3 using a true control group and a larger sample. In addition to an overall effect of condition on self-stigma of seeking professional help, there was an interaction between condition and depression score on the single-item help-seeking intention item and self-stigma, such that those with severe symptomatology who had engaged in distancing reported being just as likely as individuals with mild symptomatology to seek help (Study 3). Their results are in line with Kross and Ayduk (2009), such that the benefits of distancing increased as levels of symptomatology worsened.

Although there have been several studies on the use of self-distancing when reflecting on negative events (e.g., Kross et al., 2012) and thinking about a time when one thought about seeking help (Hollar & Siegel, 2019b), fewer studies tested the utility of self-distancing when

reflecting on positive experiences. In one experimental study, Gruber, Harvey, and Johnson (2009) randomly assigned participants to a reflective (i.e., self-distancing by watching what occurred from a distance) or ruminative exercise (i.e., immersing oneself by writing about their emotions). Their results indicated that the distancing condition was associated with lower levels of positive emotion and reactivity than the immersed condition among both individuals experiencing bipolar depression and healthy controls. Although it may seem as if distancing may not be effective when reflecting on a positive experience, it is important to note that a limitation of this study is that only the immersed condition reflected on emotions. As such, a logical next step is to test self-distancing when recalling emotions associated with a past positive experience (i.e., self-distanced savoring) with comparative conditions that also require participants to reflect on their emotions. However, rather than observing a positive experience from the perspective of an objective other as in Hollar and Siegel, which may likely result in lower levels of positive emotion, one can savor from the perspective of one of the most positive people they know. Taking this approach would allow for distancing while also perhaps allowing one to see more good in the experience than what was remembered.

Relational Savoring

Another way to potentially maximize the utility of savoring among individuals with heightened depressive symptomatology is to recall a shared, rather than a self-focused, positive experience. Relational savoring (i.e., relishing in a shared experience; Bryant & Veroff, 2007) entails recalling a positive memory that occurred with another individual with whom one felt a special connection (Holness, 2017) or a time one felt a sense of security with another (Borelli et al., 2014). In addition to the reduction in self-focus, the potential increase in sense of security and appreciation may further increase one's motivation to seek help, as individuals with

heightened depressive symptomatology tend to have low levels of perceived social support (Wang et al., 2018). As described in Borelli, Bond, Fox, and Horn-Mallers (2019), focusing on a shared experience can activate “the attachment system and [generate] feelings of emotional security [that] may reduce anticipation of threats and increase a sense of felt security (e.g., Gillath, Selcuk, & Shaver, 2008; Mikulincer & Shaver, 2007; Sroufe & Waters, 1977)” (p. 3). Relational savoring also may challenge one’s thoughts of “unlovability, rejection, [and] unworthiness” (Clark et al., 1999, p. 403).

In one of the initial studies on relational savoring, Borelli et al. (2014) used a sample of adults in long-distance relationships to compare the effects of a relational savoring, personal savoring, or a control writing task (i.e., writing and thinking about one’s morning routine) on positive emotion, negative emotion, and a relationship satisfaction measure delivered following a relationship stressor task (i.e., imagining their partners had not come home and were not answering their phone). Controlling for age and sex, Borelli et al. found that relational savoring was associated with not only greater positive emotion but also lower negative emotion compared to the personal savoring and control tasks; personal savoring and the control condition did not differ from each other. Results also indicated that relational savoring led to greater *post-stressor* relationship satisfaction through post-task emotion for individuals with medium to high levels of baseline relationship satisfaction. In line with these findings, for someone with heightened depressive symptomatology, relational savoring may serve as a protective factor when faced with potentially threatening, self-relevant information (e.g., the choice to get help).

Beyond relational savoring’s effects on emotion and interpersonal outcomes (Borelli et al., 2014), relational savoring has been found to reduce physiological reactivity and increase psychological agency (Borelli et al., 2019). Participants in Borelli et al. were randomly assigned

to a 30-minute, in-person relational savoring or personal savoring exercise that was completed with the help of an interviewer. After the exercise, relational savoring participants exhibited lower cardiovascular activity (i.e., lower heart rate), demonstrating lower emotional reactivity and less distress, than personal savoring participants. In response to an advice-giving task, relational savoring participants also were more likely than personal savoring participants to give more agency-related and lower passivity-related advice. For those with heightened depressive symptomatology, these outcomes (i.e., reduced emotional reactivity and an increase psychological agency) may have a positive impact on one's decision to seek help.

In addition to the aforementioned outcomes, relational savoring also may be a promising approach to use among those experience heightened depressive symptomatology because of its potential to satisfy the three basic psychological needs (i.e., competence, autonomy, and relatedness; Ryan & Deci, 2000), initially theorized by Quoidbach, Berry, Hansenne, and Mikolajczak (2010). As a test of this idea, Layous, Kurtz, Chancellor, and Lyubomirsky (2018) had participants write for 8 minutes at the end of each week for 4 weeks about their weekly activities. Unlike the neutral comparison, however, savoring participants were told to “live this month like it was their last in their college town” and savor the people and places they enjoy (p. 303). At the 2-week follow-up, savoring participants reported greater global well-being through greater need satisfaction. Of these three needs, relatedness may be most relevant to relational savoring and individuals with heightened depressive symptomatology, as it may help temporarily counter low perceived social support (Wang et al., 2018).

CHAPTER 3

Rationale of the Proposed Studies

The overall goal of the current set of studies was to expand the current line of research on the application of savoring by testing the ecological validity of the savoring PEI approach using videos. As such, the purpose of Study 1 was first to determine the strongest savoring manipulation to test in the form of a video in Study 2. Study 1 compared five versions of a savoring writing task (Straszewski & Siegel, 2018) that varied in level of self-focus to a neutral control writing task, as it was predicated that the tasks with the lowest levels of self-focus would be associated with the strongest effect on help-seeking. In addition to testing vicarious savoring, self-distanced savoring, relational savoring, and personal savoring, a combination savoring condition was created to test the combined effects of the vicarious and relational savoring conditions. Namely, combination savoring entailed recalling a positive experience shared with a loved one similar to the relational savoring condition but instead writing about how the loved one felt as in the vicarious savoring condition. Although all the savoring conditions were predicted to elicit greater help-seeking intentions than the neutral control condition, vicarious savoring, self-distanced savoring, relational savoring, and combination savoring were hypothesized to be associated with greater help-seeking intentions than personal savoring, which is self-focused. Further, combination savoring was predicted to be the most effective way to increase help-seeking intentions following the savoring writing task, as it was the condition most removed from the self.

Study 2 then tested the effect of a savoring public-service announcement-like video (i.e., S-PSA) on help-seeking attitudes, help-seeking intentions, and help-seeking behavior. The S-PSA guided participants through a relational savoring exercise prior to presenting participants

with an opportunity to seek help. The S-PSA, when compared to a comparison PSA and information-only control, was expected to lead to more positive help-seeking attitudes, greater help-seeking intentions, and, as a measure of help-seeking behavior, a greater likelihood of asking for more information about how to get help.

CHAPTER 4

Study 1

To identify the best savoring approach to test the ecological validity of the savoring PEI approach in Study 2, Study 1 tested five savoring manipulations that varied in self-focus and compared their effects on help-seeking intentions relative to a neutral control writing task: vicarious savoring, self-distanced savoring, relational savoring, combination savoring, and personal savoring. All five savoring conditions were hypothesized to be associated with greater help-seeking intentions than the neutral control (Hypotheses 1 to 5). In comparison to personal savoring, vicarious savoring, self-distanced savoring, relational savoring, and combination savoring were hypothesized to be associated with greater help-seeking intentions (Hypotheses 6 to 9) due to the predicted reduction in self-focus. Finally, combination savoring was predicted to be associated with greater help-seeking intentions than vicarious savoring, self-distanced savoring, and relational savoring (Hypotheses 10 to 12), as it was the condition most distant from the self. Please see the Open Science Framework (OSF; <https://osf.io/3umtz/>) for this study's preregistration.

Method

Sample size rationale. Based on a G*Power Analysis (Erdfelder, Faul, & Buchner, 1996; Faul, Erdfelder, Lang, & Buchner, 2007) calculated for the hypothesis with the greatest number of groups (i.e., 6), 1,653 participants would need to complete the survey to detect a small effect (6 conditions, 4 covariates [age, gender, depression score, and perception of current symptomatology], Numerator $df = 5$, α error = .05, power = .90, effect size [f] = .10). However, considering approximately 18% of participants who completed a screener survey in Study 3 of Straszewski and Siegel (2019) were eligible for the main survey, a minimum of 9,183 would

need to be recruited. An additional 20% was added to the recruitment total to account for the removal of participants during data cleaning. As such, to ensure there were enough participants to be able to detect a small effect, a minimum of 11,020 participants would need to complete the screener survey.

Procedure. Participants accessed the survey through a link on Amazon's Mechanical Turk (MTurk) through Turk Prime. Following the informed consent forms, participants who agreed to participate completed a depression inventory and an attention check hidden at the end of the inventory. Participants who expressed suicidal ideation during the depression inventory received a message with help-seeking information that included contact information for the National Suicide Prevention Hotline (1-800-273-TALK [8255]), National Mental Health Association hotline (1-800-969-6642), the Depression & Bipolar Support Alliance website (<http://www.dbsalliance.org>), and the American Foundation for Suicide Prevention website (<http://www.afsp.org/>). These participants were able to quit the survey without losing compensation. The survey code was modified within Qualtrics to calculate a total depression score immediately following the depression inventory. Participants who scored a 14 or greater, indicating heightened depressive symptomatology (Beck, Steer, & Brown, 1996), were asked to indicate if they think they believed they could be experiencing depression. Those who scored a 3 or above out of a possible 7 were prompted with an item asking them to indicate if they have already sought help for their symptoms, and if so, from whom they had already sought help (i.e., a loved one or a professional). At the end of the screener, there was a captcha and an item asking participants to write one sentence about what they did today. Only participants with a score of 14 or greater who also reported not having sought help were eligible for the main survey.

Compensation for the screener was \$.15 to \$.30. The university's Institutional Review Board granted this and the following study exempt from full review.

Participants who meet the eligibility requirements (i.e., depression inventory score of 14 or greater who had not yet sought help from a loved one or a professional) received a message informing them that they qualified for a \$.75 bonus survey. Those who agreed to participate received the informed consent form for the main survey. Following the informed consent form, participants were shown a message letting them know that they will be asked to complete a writing task, and only participants who complete the writing tasks would receive compensation, was displayed. Participants who agreed to these terms were then randomly assigned to one of the six conditions using Qualtrics' (2019) randomization feature: vicarious savoring, self-distanced savoring, relational savoring, combination savoring, personal savoring, or neutral control.

The general format of the writing tasks followed that of Straszewski and Siegel (2018, 2019), namely, an initial 2-minute section to write about details associated with a past positive experience and a 4-minute section to write about the emotions associated with the experience. Participants were asked to recall a past positive experience in line with their assigned experimental condition (see Appendix A for the writing task prompts for each condition). For example, vicarious savoring participants were requested to "Please think of a recent time that a loved one (e.g., romantic partner, friend, family member) told you a story of one of their positive experiences." Asking participants to think of an experience that happened recently (Straszewski & Siegel, 2019) as opposed to asking them to recall an experience that occurred in the last week (Straszewski & Siegel, 2018) helped ensure that all participants would have something to write about for each prompt. After reading the instructions for the type of positive memory they were assigned to recall and write about, those in the vicarious savoring, self-distancing, relational

savoring, and combination savoring were asked to indicate the name of the person they were writing about and the nature of their relationship (i.e., romantic partner); the name indicated was piped into the writing tasks and one of the outcome measures. All participants then began the writing portion of the main survey.

For 2 minutes, participants described their positive experience in detail (e.g., who was there and what did they see). In the second portion of the writing task, participants wrote about how they felt (for relational savoring and personal savoring), how their loved one felt (for vicarious savoring and combination savoring), or how one of the most positive persons they know saw them feel (for self-distanced savoring) for 4 minutes. Participants were asked to describe the positive emotions they felt, how intensely they felt them, and any physical sensations they experienced as a result. Participants in the neutral control wrote about what they did today for the 2-minute section and what they did yesterday for the 4-minute section (e.g., Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017; see Appendix B for examples of participant responses for each condition). After completing the writing tasks, participants completed the outcome measures and demographics items. The university's Institutional Review Board deemed this study as exempt from full review.

Participants. Participants ($N = 1,308$, 63.23% female) recruited through Turk Prime (Litman, Robinson, & Abberbock, 2016), a data collection platform linked with Amazon Mechanical Turk (MTurk), were required to be English-speaking, United States residents 18 years or older ($M = 35.27$, $SD = 11.22$). Further, only participants who had at least a 90% approval rating and had completed a minimum of 50 surveys on MTurk were able to view the survey link. These individuals reported having heightened depressive symptomatology ($M = 23.16$, $SD = 8.40$; 562 mild, 461 moderate, and 285 severe, depressive symptomatology) and had

not yet sought help for their symptoms. The final sample sizes per condition were as follows: 232 vicarious savoring, 187 self-distanced savoring, 224 relational savoring, 236 combination savoring, 182 personal savoring, and 247 neutral control.

Measures. Participants completed a depression inventory, an initial attention check hidden at the end of the depression inventory, and items that assessed their perception of current symptomatology and help-seeking behaviors to determine their eligibility for the main survey. The main survey included a help-seeking intentions scale, a relationship closeness scale which also hid an attention check, a scale used solely to embed two attention checks, a general attention check item, items about past help-seeking experiences, and demographics questions (see Appendix C for Study 1 measures).

Depression. The 21-item Beck Depression Inventory-II (BDI-II; Beck et al., 1996) was used to assess participants' current depressive symptomatology. Participants responded to each item based on how they had been feeling during the past two weeks. For example, for the *Loss of Interest* item, participants selected a response ranging from 0, *I have not lost interest in other people or activities*, to 3, *It's hard to get interested in anything*. Based on Beck et al., scores less than 14 indicate no to minimal depressive symptomatology. For scores of 14 or greater, 14-19 represent mild depressive symptomatology, 20-28 represent moderate depressive symptomatology, and 29-63 represent severe depressive symptomatology. In line with Beck et al. who noted adequate internal consistency ($\alpha = .92$), other help-seeking studies have reported similar internal consistencies ($\alpha = .88$, Lienemann & Siegel, 2017; $\alpha = .92$, Siegel et al., 2015; $\alpha = .88$ to $.95$, Straszewski & Siegel, 2018; $\alpha = .78$ to $.88$, Straszewski & Siegel, 2019; $\alpha = .95$, Straszewski et al., 2017). The internal consistency of the current study also was considered adequate ($\alpha = .84$).

Perception of current symptomatology. As the purpose of these studies was to measure intentions to seek help as a way to predict future help-seeking behaviors (Ajzen, 1985), the target population was participants who have not yet engaged in help-seeking behaviors. However, based on the rationale that someone may not have sought help from someone unless they believed they were currently experiencing depressive symptomatology (Rosenstock, Stretcher, & Becker, 1988), participants were asked, “Do you believe you are experiencing depression currently?” and responded using a 7-point, Likert-style item, 1 (*Definitely No*) to 7 (*Definitely Yes*). Researchers have found evidence that knowledge of depressive symptomatology is a relevant factor found to influence help-seeking intentions (e.g., Kelly, Jorm, & Wright, 2007; Rickwood, Deane, & Wilson, 2007), similar to how perceived threat and cues to action are important factors for health behavior change in the health belief model (Rosenstock et al., 1988). As such, this item also was used as a covariate in the analyses.

Current help-seeking behavior. Participants who selected a score of at least 3 on the perception of current symptomatology question received a follow-up question: “In regard to your current feelings, have you talked to anyone (e.g., loved one or a professional)?” Participants responded using a dichotomized response set, 1 (*Yes*) or 2 (*No*). A *Yes* response was followed up with two additional questions to assess from whom they had sought help from in the past (i.e., a loved one or professional help). However, regardless of the source, participants with any previous help-seeking experience were considered ineligible for the main survey.

Help-seeking intentions. To assess intentions to seek help, participants completed an 8-item version of the General Help-Seeking Questionnaire (GHSQ; $\alpha = .85$, Wilson, Deane, Ciarrochi, & Rickwood, 2005). Each item presented participants with a separate help-seeking source (e.g., romantic partner), and participants responded to each item using 7-point, Likert-

style items, ranging from 1 (*Very Unlikely*) to 7 (*Very Likely*), with N/A listed as an additional option except for the item that inquired about one's likelihood to seek help from one other person. For example, participants responded to items such as, "If you were experiencing depression, how likely is it you would seek help from a mental health professional?" The items were combined to create an overall help-seeking composite. The GHSQ has been found to correlate with past and future help-seeking behaviors (Cusack, Deane, Wilson, & Ciarrochi, 2006), and GHSQ items have been included in prior help-seeking studies (e.g., Lienemann & Siegel, 2017; Siegel et al., 2015; Siegel & Thomson, 2016; Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017). As reported in prior savoring help-seeking studies ($\alpha = .79$ to $.80$, Straszewski & Siegel, 2018; $\alpha = .78$, Straszewski & Siegel, 2019; $\alpha = .78$, Straszewski et al., 2017), the internal consistency of the GHSQ in the current study was adequate ($\alpha = .73$).

Relationship closeness. Similar to Borelli et al.'s (2014) inclusion of a 3-item measure of relationship satisfaction (i.e., Kansas Marital Satisfaction scale; Schumm, Nichols, Schectman, & Grigsby, 1983) to assess if effects of relational savoring were different based on the baseline levels of relationship satisfaction, the current study also included a measure of relationship quality. Since this study was not limited to romantic partners and to avoid drawing attention to how satisfied a participant one felt with the person with whom they shared a positive experience, a measure of relationship closeness was selected instead: 12-item Unidimensional Relationship Closeness Scale (Dibble, Levine, & Park, 2012). Participants used 7-point, Likert-style items, 1 (*Strongly Disagree*) to 7 (*Strongly Agree*), to respond to items such as, "[Piped name] and I have a strong connection." In the current study, a relationship closeness composite was created and used as a covariate only in a follow-up analysis. The internal consistency ($\alpha = .91$) of the scale in

the current study is in line with prior research ($\alpha = .96$, Dibble et al., 2012; $\alpha = .94$, Feng & Magen, 2016).

Condition checks. As in Straszewski and Siegel (2018, 2019) and Straszewski et al. (2017), participants' written responses were used as condition checks. To help ensure participants followed the directions for their assigned condition, two coders read through each written response (see the data cleaning section for a more detailed description of this process).

Attention checks. The survey included a total of four attention checks. The first attention check was placed at the end of the BDI-II. To proceed with the screener survey, participants needed to respond to the statement, "About the Proceeding..." with, "I have paid attention to these questions." Participants who failed the first attention check did not receive compensation for the screener portion of the survey. Within the main survey, one attention check was embedded within the Unidimensional Relationship Closeness Scale (i.e., "While you are thinking of [Piped name], please select response five"). Two additional attention checks were within the 5-item Psychological Disequilibrium Scale (i.e., a measure of mental uneasiness; Rosenberg & Siegel, 2016) as in Straszewski and Siegel (2018, 2019). These two attention checks instructed participants to select a particular response (e.g., Select option six.). Participants who answered these questions correctly proceeded to the next page. Those who answer incorrectly received a message informing them that they had selected the incorrect response to an attention check, that the survey would now end, and that they would receive compensation for completing the screener survey but not for completing the main survey. A final attention check was included immediately before the demographics page. Participants responded to one item, "I paid attention to the survey," using a 7-point, Likert-style item, 1 (*Strongly Disagree*) to 7 (*Strongly Agree*).

Participants were explicitly asked to answer honestly, as their compensation would not change as a result of their response.

Past help-seeking experience. A priori, positive help-seeking experience is associated with a greater likelihood of seeking help at a later time (Gulliver et al., 2010). As such, one item was used first to ask participants if they had experienced depression in the past, 1 (*Yes*) or 2 (*No*). Those who responded with *Yes* were then asked if they had previously sought help from any source, 1 (*Yes*) or 2 (*No*). A *Yes* response was followed up with a question about their prior help-seeking experience: “Overall, how would you describe your prior help-seeking experience?” Participants responded to this item using a 7-point, Likert-style item, 1 (*Very Negative*) to 7 (*Very Positive*). This past experience item was used only in an exploratory analysis.

Demographics. At the end of the survey, participants completed a series of demographic items. They were asked to indicate their age and gender (i.e., [0] man, [1] woman, [2] prefer to self-describe, and [3] prefer not to say), as these two items were used as covariates in the analyses. An additional textbox was included at the end for participants to provide any comments or feedback about the survey.

Data analytic plan. SPSS version 25 was used for the data analyses. Following the examination of the assumptions, a one-way ANCOVA was used to assess the effect of the condition variable on help-seeking intentions, using 5,000 bootstrapped samples (Ong, 2014) and controlling for age (Jorm, 1987; Smith & Bryant, 2017; Smith & Bryant, 2019; Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017), gender (Bryant & Veroff, 2007; Jorm, 1987; Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017), depression score (Lueck, 2018; Straszewski & Siegel, 2019), and perception of current symptomatology (i.e., “Do you feel you are currently experiencing depression?”). The covariates were retained in the model, even if they

were not significant. In addition to the omnibus test results, results of the planned comparisons in line with the hypotheses also were examined using Fisher's Least Significant Difference (LSD) t-tests.

As indicated in the preregistration, a series of exploratory analyses were considered. First, the initial ANCOVA was considered without the inclusion of the covariates. For the conditions assigned to complete the relationship closeness scale, the initial ANCOVA also was tested with the inclusion of the relationship closeness as first a covariate and then in a separate analysis as a factor (mean-centered), testing the interaction between condition and relationship closeness as in Borelli et al., 2014). A third exploratory analysis included participants' prior help-seeking experience as an additional covariate within the original ANCOVA, as people with negative past help-seeking experiences may be the hardest to persuade. Lastly, the original ANCOVA also was considered using only participants who selected a score of 3 and above on the perception of current symptomatology item. Based on prior research indicating that knowledge of depressive symptomatology is a relevant factor found to influence help-seeking intentions (e.g., Kelly et al., 2007; Rickwood et al., 2007), selecting only participants who acknowledge that they may be experiencing depression may influence the extent of the effect on help-seeking intentions.

Data Cleaning

During data collection, the data were downloaded in five separate batches so that two coders (i.e., Straszewski and another researcher from the laboratory) could begin to read through the written responses rather than wait to read all 1,000+ responses all at once. Each time the data were downloaded, the preregistered initial data cleaning steps were used for each batch so that coders were not taking time to read responses that would not be included in the final combined

dataset (the data cleaning steps and the total number of participants removed for each step are described in more detail in the next paragraph). Each coder received a copy of the batch and determined if each written response was in line with the participants' assigned condition. As specified in the preregistration, the coders excluded participants if they 1) wrote about a separate topic; 2) wrote about mixed emotions (i.e., wrote about both positive and negative emotions); 3) wrote in a way that falls into one of the other conditions (e.g., personal savoring participants writing about a time they shared with a loved one, which would be considered relational savoring); or 4) other (e.g., stated they no longer wanted to participate or wrote in a different language). Once the two coders finished coding responses in all five batches, the batches were merged into one Microsoft Excel file. Across all batches, before talking through any inconsistencies, the coders had an 88.70% agreement rate ($\kappa = .556$); following discussion about disagreements, they were in 100.00% agreement.

After downloading the data file from Qualtrics ($N = 13,086$), participants were initially removed from the dataset for not offering consent to the screener portion of the survey ($n = 4$), expressing suicidal ideation and choosing to exit the survey ($n = 95$), failing the first attention check ($n = 1,679$; 787 had not answered the question, and 892 selected the incorrect response), scoring less than 14 on the depression inventory ($n = 5,875$), already seeking help ($n = 2,899$), and not writing about what they did today following the embedded captcha ($n = 18$). Of the remaining participants deemed eligible for the main survey ($n = 2,516$), 2,310 agreed to take a bonus survey. However, 15 did not offer their consent. A second consent let participants know that the researchers would read through their written responses before issuing the bonus. Eighty-six did not consent, and 8 exited the survey without answering this question, leaving 2,201 participants.

The skip logic was set up in the survey so that leaving a textbox blank precluded participants from completing the rest of the survey ($n = 277$). Among participants assigned to complete the relationship closeness scale, twenty-six participants failed the attention check hidden in the relationship closeness scale. Twenty-four participants failed the first attention check hidden in the psychological disequilibrium scale, and 98 failed the second, leaving 1,826 participants.

Although the rest of the participants completed the entirety of the survey as asked and were compensated, additional participants were removed for a series of reasons determined a priori (see OSF). There were no participants that had to be removed for leaving at least one help-seeking intentions item blank, but 7 were excluded for answering “not applicable” for more than 2 items. One participant was removed for leaving at least one relationship closeness item blank and 23 were excluded for missing at least one psychological disequilibrium item. For the final general attention check (i.e., the extent they paid attention during the survey), those who did not select a score of 5 or greater out of 7 were removed ($n = 4$). Since age and gender were included as covariates, those who did not respond to these items were excluded from the final analyses ($n = 3$). No duplicate MTurk IDs were evident. Additional participants ($n = 149$) were removed if their responses were not at least 100 characters in length for the first section and 200 characters for the second section. These cut-offs were determined a priori based on the average length of responses the experimenter could write given the amount of time allotted for each writing section. An additional 281 were removed for not completing the writing task as asked. Following these data cleaning steps, 1,356 participants were retained.

Once the dataset was examined thoroughly, the help-seeking intentions and relationship closeness composites were created. A categorical depression variable also was created based on

Beck et al.'s (1996) three depression level categories of mild, moderate, and severe depressive symptomatology. Further, to help control for participants simultaneously completing other surveys, a new variable to assess the total time participants spent on the survey was created by subtracting the survey start time from the end time. Finally, the condition variable was created.

Depression score, perception of current symptomatology, age, help-seeking intentions composite, relationship closeness, and the total length of time spent on the survey were examined for outliers. For the measures before the manipulation (i.e., depression score, perception of current symptomatology, and age), outliers were assessed across all the conditions. For help-seeking intentions, relationship closeness, and the total time variable, outliers were identified by level. In total, 42 univariate and 2 multivariate outliers, calculated using Mahalanobis distance, were removed (Tabachnick & Fidell, 2019).

Following the removal of outliers, the assumption of normality was then examined. Using a cutoff of ± 2 (Tabachnick & Fidell, 2019), only the personal savoring (kurtosis = 3.47[.36], skew = 1.59[.18]) and neutral control conditions (kurtosis = 3.08[.31], skew = 1.54 [.15]) violated the normality assumption for the time variable. As such, 2 participants in the personal savoring and 2 in the neutral control conditions were removed. Removing these participants improved kurtosis for both personal savoring (kurtosis = 2.17[.36] skew = 1.28[.18]) and neutral control (kurtosis = 2.24 [.31], skew = 1.33[.16]). As such, the final sample size was comprised of 1,308 participants.

Analysis of covariance assumptions were then examined. To assess the independence of covariate and treatment effect assumption, initial tests were considered. This assumption was satisfied for: gender, $\chi^2(15) = 11.62, p = .708$; depression score, $F(5, 1302) = 1.01, p = .411$; and perception of current symptomatology, $F(5, 1302) = .87, p = .498$. However, condition

significantly predicted differences in age, $F(5, 1302) = 2.65, p = .021$. This assumption violation would mean an issue with random assignment or that the condition influenced participants' responses on the covariate item (Grace-Martin, 2019), with the latter seeming the less likely case. Since the study's preregistration included age as a covariate in the analyses, the covariate was retained. However, the analysis also was considered without the inclusion of age as a covariate. Next, the homogeneity of regression slopes assumption was examined by considering the interaction between the condition variable and each covariate on help-seeking intentions. Non-significant results indicated that the assumption of homogeneity of regression slopes was satisfied: age, $F(5, 1274) = 1.26, p = .280$; gender, $F(7, 1274) = .96, p = .459$; depression score, $F(5, 1274) = 1.27, p = .277$; perception of current symptomatology, $F(5, 1274) = .75, p = .587$ (Field, 2013). Finally, a non-significant Levene's test indicated that the homogeneity of variances assumption was satisfied, $F(15, 1292) = 1.13, p = .320$.

Results

Preregistered main analyses. Following the examination of the assumptions, results of a one-way ANCOVA did not indicate an overall effect of condition on help-seeking intentions, $F(5, 1296) = 1.28, p = .269, \eta_p^2 = .005$. All four covariates significantly predicted help-seeking intentions: age, $F(1, 1296) = 6.43, p = .011, \eta_p^2 = .005$; gender, $F(3, 1296) = 6.76, p < .001, \eta_p^2 = .015$; depression score, $F(1, 1296) = 21.46, p < .001, \eta_p^2 = .016$; perception of current symptomatology, $F(1, 1296) = 42.92, p < .001, \eta_p^2 = .032$. Examining the planned comparisons, although it was hypothesized that there would be a difference between relational savoring and combination savoring, this effect was in the opposite direction, as relational savoring ($M = 3.59, SE = .31$) was associated with significantly greater help-seeking intentions than combination savoring ($M = 3.34, SE = .30$), $p = .026$, 95% CI of the difference [.030, .468]. Relational

savoring was marginally significantly different from the neutral control ($M = 3.40$, $SE = .31$), $p = .074$, 95% CI of the difference $[-.019, .413]$. All other hypotheses were not supported (see Table 1 for estimated marginal means and standard errors). The pattern of results remained the same after examining the model without age as a covariate, as it had violated an ANCOVA assumption, and without the inclusion of the set of covariates. However, the difference between relational savoring and combination savoring is no longer significant.

Table 1

Study 1 – ANCOVA Estimated Marginal Means and Standard Errors

Vicarious Savoring	3.47 (.31)
Self-Distanced Savoring	3.52 (.31)
Relational Savoring	3.59 (.31) ^{ab}
Combination Savoring	3.34 (.30) ^a
Personal Savoring	3.50 (.31)
Neutral Control	3.40 (.31) ^b

Note. Estimated marginal means for each condition on help-seeking intentions include age, gender, depression score, and perception of current symptomatology as covariates. Standard errors are listed in parentheses.

^a Indicates significant between-group difference, $p < .05$, two-tailed. ^b Indicates marginally significant between-group difference, $p = .07$, two-tailed.

Preregistered exploratory analyses. In line with the preregistration, a series of exploratory analyses also were considered. Regardless of the effect of the overall model on the outcomes, between-group differences were examined.

Selecting participants who self-reported experiencing depression. A one-way ANCOVA, using 5,000 bootstrapped samples, was considered to assess the effect of condition on help-seeking intentions among people who self-reported perceiving they may be experiencing depression (i.e., scoring a 3 or greater on the 7-point scale; $n = 918$). Results did not indicate a significant effect of condition, $F(5, 907) = .79$, $p = .559$, $\eta_p^2 = .004$. Age, gender, and depression score were significant covariates, $ps < .05$. None of the pairwise comparisons were significant. However, relational savoring had the largest estimated marginal mean ($M = 3.42$, $SE = .44$), with the next largest being the self-distanced condition ($M = 3.39$, $SE = .44$).

Controlling for quality of past help-seeking experience. As past research supports that people with negative past help-seeking experiences may be the hardest to persuade (Siegel et al., 2017), people's past help-seeking experience was used as a covariate. When testing for the independence of covariate and treatment effect assumption ($n = 616$), results indicated that condition was associated with differences in past help-seeking experience, $F(5, 610) = 3.27, p = .006$. Considering this item was placed after the manipulation, the manipulation could have influenced participants' responses to this item due to its subjective nature. An investigation of the differences between conditions by examining the pairwise conditions revealed that that both relational savoring ($M = 4.01, SD = 1.55$) and combination savoring ($M = 4.08, SD = 1.73$) were associated with more negative past help-seeking experiences compared to personal savoring ($M = 4.63, SD = 1.70$) and the neutral control ($M = 4.75, SD = 1.48$), $ps < .05$. Further, relational savoring was associated with a more negative past help-seeking experience than the self-distancing condition ($M = 4.54, SD = 1.80$), $p < .05$. Although results indicated this assumption was violated, a one-way ANCOVA was still considered in line with our preregistration. All other ANCOVA assumptions were satisfied. A one-way ANCOVA, using 5,000 bootstrapped samples while controlling for age, gender, depression score, perception of current symptomatology, and past help-seeking experience indicated no effect of the condition above and beyond the inclusion of these covariates, $F(5, 603) = 1.29, p = .267, \eta_p^2 = .011$. Age, perception of current depression, and past help-seeking experience were all significant, $ps < .01$, but depression score was not a significant covariate. Among the planned comparisons, a similar pattern of results was evident; those in the relational savoring condition ($M = 3.75, SE = .36$) reported significantly greater help-seeking intentions than those in the combination savoring condition ($M = 3.40, SE = .35$), $p = .019$, 95% CI of the difference [.057, .647]. Unlike in the initial analysis where the relational

savoring condition was marginally significantly different than the neutral control, this comparison met the cut-off for significance. Those in the relational savoring condition reported greater help-seeking intentions than those in the neutral control ($M = 3.45$, $SE = .34$), $p = .045$, 95% CI of the difference [.007, .608].

Controlling for relationship closeness. Relationship closeness was then examined, first as a covariate and then as a moderator ($n = 879$). For the ANCOVA, the assumptions were examined once more with the addition of the relationship closeness variable. When testing for the independence of covariate and treatment effect assumption, results indicated that condition was associated with differences in relationship closeness, $F(3, 875) = 29.49$, $p < .001$, such that those in the relational savoring condition reported greater relationship closeness ($M = 5.62$, $SD = .84$) than and vicarious savoring ($M = 5.21$, $SD = 1.08$), $p < .001$, 95% CI of the difference [.211, .611], and self-distanced savoring ($M = 4.70$, $SD = 1.41$), $p < .001$, 95% CI of the difference [.717, 1.139]. Relational savoring did not differ significantly from combination savoring ($M = 5.51$, $SD = 1.00$), $p = .287$, 95% CI of the difference [-.091, .307]. This, however, is not surprising, as the relational savoring and combination savoring conditions specifically asked participants to think of a shared experience with a loved one, whereas vicarious savoring involved a loved one to a lesser extent, and self-distancing required simply the most positive person they know, now specifically a loved one. As discussed previously, this assumption violation indicated a potential concern with random assignment or that the condition influenced participants' responses (Grace-Martin, 2019). Unlike age that would remain stable whether measured at the beginning or end of the survey, the writing task could have influenced relationship closeness, as it was placed after the writing tasks and the help-seeking intentions items. However, as this analysis was for exploratory purposes in the preregistration, the analyses

were still considered. All other ANCOVA assumptions were satisfied. Results of the one-way ANCOVA, using 5,000 bootstrapped samples, showed a significant effect of condition on help-seeking intentions, $F(3, 868) = 3.23, p = .022, \eta_p^2 = .011$. Among the covariates, all but age were significant: gender, $F(3, 868) = 2.98, p = .031, \eta_p^2 = .010$; depression score, $F(1, 868) = 18.10, p < .001, \eta_p^2 = .020$; perception of current symptomatology, $F(1, 868) = 20.32, p < .001, \eta_p^2 = .023$; relationship closeness, $F(1, 868) = 35.93, p < .001, \eta_p^2 = .040$. Results of the planned comparisons revealed that combination savoring ($M = 3.33, SE = .36$) was associated with significantly *lower* help-seeking intentions than self-distanced savoring ($M = 3.68, SE = .36$), $p = .003$, 95% CI of the difference [-.581, -.124] and relational savoring ($M = 3.54, SE = .36$), $p = .049$, 95% CI of the difference [-.425, -.001], and marginally significantly lower help-seeking intentions than vicarious savoring ($M = 3.52, SE = .36$), $p = .075$, 95% CI of the difference [-.400, .019].

Including the interaction between condition and relationship closeness. Relationship closeness also was examined as a moderator of the effect of the writing tasks (i.e., vicarious savoring, self-distanced savoring, relational savoring, and combination savoring) on help-seeking intentions. An initial examination of the collinearity statistics (i.e., tolerance and VIF) indicated that the assumption of multicollinearity was satisfied. A three-stage hierarchical linear regression was used to examine mean differences on help-seeking intentions, controlling for age, gender, depression score, and perception of current symptomatology to assess if relationship closeness moderated the effect of condition on help-seeking intentions. Model 1 included the covariates accounted for 11.59% of the variance in help-seeking intentions, $F(6, 872) = 19.05, p < .001$, with being female, $\beta = .104, t = 3.24, p = .001$, having a lower depression score, $\beta = -.171, t = -4.30, p < .001$, and having a lower perception of currently experiencing depression, $\beta = -.189, t =$

-4.80, $p < .001$, significantly predicting greater help-seeking intentions. For Model 2, the dummy coded condition variables and relationship closeness were added, using combination savoring as the reference group, as it had appeared to be the weakest condition in prior analyses. Results indicated that Model 2 accounted for an additional 4.01% of the variance in help-seeking intentions, $F_{change}(4, 868) = 10.32, p < .001$. In addition to the significant predictors in Model 1 that remained significant in Model 2, greater relationship closeness predicted greater help-seeking intentions, $\beta = .199, t = 6.00, p < .001$. Additionally, when compared to combination savoring, self-distanced savoring, $\beta = .116, t = 3.03, p = .003$, and relational savoring, $\beta = .075, t = 1.97, p = .049$, predicted greater help-seeking intentions. For vicarious savoring, the effect was marginally significant, $\beta = .068, t = 1.79, p = .075$. The condition x relationship closeness interactions were considered in Model 3. However, the overall model did not significantly explain more of the variance in help-seeking intentions (i.e., .38%), $F_{change}(3, 865) = 1.31, p = .270$; none of the interactions were significant.

Additional exploratory analyses. As a way to gain further insight into participants' thought processes during the survey, participants' comments and feedback were examined. Based on participants' responses regarding the writing tasks, some noting that the self-distanced savoring writing task was complex, a series of descriptive analyses were considered to assess potential differences in difficulty while completing the writing task that may have additionally influences the results. Results of a chi-square test of independence, $\chi^2(5, N = 1,637) = 86.85, p < .001$, indicated that the conditions differed significantly based on the percentage of participants removed for not following the instructions for their assigned condition. Looking at the percentage of participants removed for each condition, the highest removal, 34.36% ($n = 100$), was in the personal savoring condition, as many participants self-selected a relational-oriented

positive experience to savor. Including these relational savoring participants in the personal savoring condition would prevent us from being able to compare savoring a truly personal experience versus a relational experience. The next highest was the self-distanced savoring condition, 19.92% ($n = 47$). Unlike in personal savoring where the two coders removed participants for having a written response that overlapped with another condition, participants in the self-distanced savoring condition were mainly removed for failing to understand the perspective to take when writing about the event. For example, when participants were asked to write from the perspective of the most positive person they knew, some wrote about a positive experience that happened to the most positive person they know. Others failed to write from this other perspective and essentially completed a personal savoring task. Approximately 15.64% ($n = 48$) of those in the neutral condition were removed; the main reason for removal was for writing about emotions (either positive or negative), as the goal was to establish a true, neutral control writing task. For relational savoring, 12.36% ($n = 33$) of responses were removed similarly to those in the personal savoring conditions, such that responses that barely referenced their loved ones or was more of an independent rather than shared experience were excluded. Only 10.70% of those in the combination savoring condition ($n = 29$) and 9.06% ($n = 24$) of those in the vicarious savoring conditions were excluded; the rationale for their removal was more varied.

Differences in total attention, after removing participants for the writing tasks and outliers, also were examined, $\chi^2(10, N = 1,308) = 13.54, p = .195$. Although there were no significant differences between the conditions, the self-distanced condition had the highest percentage (14.97%; $n = 28$) of participants that reported a 5 or 6 out of 7 on the attention item followed by those in the combination savoring condition (13.98%; $n = 33$). As such, a set of

exploratory analyses were considered to examine whether there would be any differences in the results if only participants who strongly agreed with the statement, “I paid attention to the survey” (i.e., 7 out of the 7-point scale) were selected (as opposed to those who self-selected a 5 out of 7 on this attention item), leaving 1,151 participants.

Selecting only participants who self-reported paying full attention. Prior to testing the condition effect on help-seeking intentions, initial assumptions were examined. As in the original analysis, age violated the independence of covariate and treatment effect assumption, $F(5, 1145) = 3.14, p = .008$, but was retained in the model as in the prior analysis. Having satisfied all other ANCOVA assumptions, a one-way ANCOVA that examined help-seeking intentions mean differences between the writing tasks, using 5,000 bootstrapped samples and controlling for age, gender, depression score, and perception of current symptomatology, was considered. Results of the omnibus test did not reveal a significant effect of condition on help-seeking intentions, $F(5, 1139) = 1.33, p = .248, \eta_p^2 = .006$. All four covariates significantly predicted help-seeking intentions: age, $F(1, 1139) = 4.65, p = .031, \eta_p^2 = .004$; gender, $F(3, 1139) = 6.22, p < .001, \eta_p^2 = .016$; depression score, $F(1, 1139) = 15.44, p < .001, \eta_p^2 = .013$; perception of current symptomatology, $F(1, 1139) = 36.40, p < .001, \eta_p^2 = .031$. Among the pairwise comparisons, relational savoring ($M = 3.59, SE = .31$) was significantly different from the neutral control ($M = 3.34, SE = .31$), $p = .032$, 95% CI of the difference [.022, .484] and marginally significantly different from the combination savoring condition, ($M = 3.36, SE = .31$), $p = .057$, 95% CI of the difference [-.007, .466]. All other comparisons between the savoring conditions and the neutral control were non-significant. The pattern of results also was evident without the inclusion of the covariates, although the planned comparisons were no longer significant.

Discussion

The current study was conducted to identify the most influential form of savoring to use in an S-PSA video in Study 2. Five savoring conditions that varied in self-focus were compared to a neutral control writing task, as it was predicted that reducing self-focus would result in a stronger effect of savoring on help-seeking intentions for individuals with heightened depressive symptomatology. Although the overall models in each analysis were not significant, results of the planned comparisons supported some of the hypotheses. In the principal analysis that included the entire sample, relational savoring was marginally different than the neutral control. Across the exploratory analyses, only relational savoring differed significantly from the neutral control when the sample was exclusively comprised of participants who self-reported paying full attention during the survey and among those who self-reported seeking help for a past bout of depression. Although combination savoring was predicted to be the strongest condition, results of the planned comparisons indicated significant differences but in the opposite direction. Combination savoring did indeed differ from relational savoring in the main analysis when 1) controlling for past help-seeking experience and 2) controlling for relationship closeness, but it was the relational savoring participants that reported being more likely to seek help. When considering only participants who reported paying full attention during the survey, relational savoring was marginally associated with greater help-seeking intentions than combination savoring.

In addition to differences in perspective-taking, the pattern of results between relational savoring and combination savoring also may be attributed to differences in the level of difficulty associated with each writing task. Upon reading participants' comments in the feedback section of the survey, some participants reported experiencing difficulty taking their loved one's

perspective, mentioning that it would be easier for them to write about their feelings and physical sensations. Although this task may have been more difficult for anyone, it may have been especially difficult for someone experiencing heightened depressive symptomatology. According to the Diagnostic and Statistical Manual of Mental Disorders-V (American Psychiatric Association, 2013), reduced ability to think, concentrate, or make decisions as symptoms of MDD, and physical changes associated with MDD are associated with cognitive deficits and reduced executive functioning (Frodl et al., 2006). Although previous findings support perspective-taking for people with heightened depressive symptomatology (e.g., Kross et al., 2012), writing about how a loved one felt in a shared situation may indeed have been more difficult than writing about one's feelings.

Although self-distanced savoring participants reported greater help-seeking intentions than those in the combination savoring condition (i.e., when controlling for relationship closeness and testing the interaction between condition and relationship closeness), self-distanced savoring may have been the most difficult condition, as across the conditions, a relatively large percentage of self-distanced savoring participants, compared to participants in the other conditions, were removed for not taking and maintaining the designated perspective. For self-distanced savoring, participants had to 1) think of a positive memory, 2) think of one of the most positive persons they know, and 3) switch their perspective to this person's. In response to the feedback section of the survey, one participant wrote, "writing from Lisa's perspective was difficult, but I tried," and another reported, "The writing portion was really weird, and I had a hard time with it. Writing about myself from the perspective of someone who wasn't there and doesn't even know about the experience was very strange and discombobulating." Looking at these results with an eye on feasibility, it may be that self-distancing may be best utilized for

reflecting on negative experiences or (Kross et al., 2012) or when thinking about a prior time when one had thought about seeking help (Study 1 and Study 3 in Hollar & Siegel, 2019b).

Comparing the current results to those in Straszewski and Siegel (2018), a difference in effect sizes was present. In Straszewski and Siegel, the general savoring writing task, when compared to the control, indicated small-to-medium effects whereas the effect sizes of the current study were small. In addition to the conditions perhaps being too similar for there to be a larger overall effect, the survey format also could have been factored into the smaller effect sizes. Unlike in Straszewski and Siegel where participants completed the depression inventory in a screener survey and were invited back to complete the writing tasks in the main survey, the format of the current study resembled that of Straszewski and Siegel (2019) where the main survey immediately followed the screener. Although the inclusion of the depression screener could have been a cue to action (Rosenstock et al., 1988) by making participants aware that they may be experiencing depression, the inclusion of the inventory may have dampened the effect of the savoring PEI. In support of this theorizing, participants' feedback included comments about how the survey made them realize they may be experiencing depression based on the questions at the beginning of the survey (i.e., depression inventory items). For example, one participant mentioned, "Overall, it has made me more concerned and aware of my current unstableness." The screener may have made participants feel judged, thereby reducing the persuasiveness of the approach (see Derricks & Earl, 2019, for an example). In line with this idea, Farmer et al. (2012) and Savage et al. (2016) highlighted the negative impact of identifying as someone who is "depressed" on seeking help. In Farmer et al.'s qualitative study, participants reported delaying help-seeking as a way to protect their identity and goals; it was not until a level of acceptance was reached that avoidance was minimized.

Compared to Borelli et al.'s (2014) comparison of a relational savoring, a personal savoring, and a neutral control writing task, there is some overlap but also some differences to note regarding the pattern of results. In Borelli et al., relational savoring differed from both personal savoring and the neutral control, with personal savoring and the neutral control not differing from each other. In the current study, although relational savoring differed from the neutral control when controlling for previous past help-seeking experience and when selecting only individuals who reported paying full attention, relational savoring and personal savoring were not significantly different from each other in any of the analyses, although the estimated marginal means in the main analyses were in the predicted direction. As such, additional investigation regarding the lack of significant differentiation between relational savoring and personal savoring in the current study is warranted.

Acknowledging that relational savoring was not significantly better or worse than vicarious savoring, self-distanced savoring, or personal savoring and but that relational savoring was the only condition that differed from the neutral control, it was decided that relational savoring would be the best condition from the current test to use in a video for Study 2. Although not significantly different from each other in the current study, this selection of relational savoring over personal savoring is in line with prior research (Borelli et al., 2014, 2019). Considering relational savoring has been shown to be effective across samples from the general population of individuals with long-distance romantic partners (Borelli et al., 2014), older adults (Borelli et al., 2019), spouses of deployed military (Borelli et al., 2014), intimate partners of cancer patients (Holness, 2017), parents of infants and toddlers (Burkhart, Borelli, Rasmussen, & Sbarra, 2015), and among individuals with heightened depressive symptomatology in the current

study, a logical next step was to explore the ecological validity of the savoring PEI approach by testing the effects of relational savoring on help-seeking using a video.

CHAPTER 5

Study 2

As a test of the ecological validity of the results in Study 1 and the general savoring PEI approach to increase help-seeking intentions (Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017), Study 2 tested savoring in the form of a video (i.e., S-PSA). Using the instructions from the relational savoring condition in Study 1 as a guide, an S-PSA was created, advertised as a Mental Health Moment. Participants were randomly assigned to either the S-PSA, a comparison PSA (i.e., a Mental Health Moment video on decluttering), or the basic control video (i.e., an introduction to the survey). In addition to assessing participants' help-seeking intentions, Study 2 also tested the relative effects of the videos on help-seeking attitudes and a help-seeking behavior item (i.e., requesting information about some help-seeking resources). Considering the potential for different PSAs to cause untoward effects (i.e., unintended negative affect; Siegel, Flores-Medel, Martinez, & Berger, 2019) among individuals with heightened depressive symptomatology, it was important that these PSAs were tested among individuals who met the critical cut-off for depression.

In line with the effects of relational savoring on help-seeking intentions in Study 1, it was predicted that the S-PSA would be associated with greater help-seeking attitudes than the basic control (Hypothesis 1) and the comparison PSA (Hypothesis 2), greater help-seeking intentions than the basic control (Hypothesis 3) and the comparison PSA (Hypothesis 4), and significantly greater odds of requesting more information about help-seeking resources compared to the basic control (Hypothesis 5) and the comparison PSA (Hypothesis 6). An additional consideration for Study 2 was the separation of the screener and the main survey to assess whether the small effect sizes in the prior study may have been a result of carry-over effects from the depression

inventory onto the PEI. Preregistration for Study 2 can be viewed on the Open Science Framework (<https://osf.io/pdz3s/>).

Method

Sample size rationale. Based on G*Power analyses for the planned analyses (i.e., ANCOVAs and logistic regression), the sample size for the hypotheses that would require the largest number of participants was utilized. As such, 1,269 participants with heightened depressive symptomatology who have not yet sought help were needed to detect a small effect (3 conditions, 4 covariates, Numerator $df = 2$, α error = .05, power = .90, effect size [f] = .10). Taking into account that approximately only 18% of screener participants were eligible for the main survey in Study 3 of Straszewski and Siegel (2019) and adding a 20% buffer as in Study 1, a minimum of 8,460 participants would need to be recruited. However, since participants were being asked back for the follow-up study unlike in Study 1, it was expected that not all participants would complete the follow-up. As such, data collection continued until at least 1,269 participants completed the main survey.

Procedure. Participants first completed the screener survey. Only those with heightened depressive symptomatology who had not yet sought help were eligible for the follow-up survey. To complete the main survey, participants were emailed the link or accessed the link posted via an MTurk post; this post was visible only to those who were invited back.

Screener survey. Although awareness of depressive symptomatology may have served as a cue to action in Study 1 (Rosenstock et al., 1988), it also is possible that placing the depression inventory before the savoring tasks may have minimized the effect of the PEI. As such, for Study 2, the screener and the main survey were separated into two separate surveys. Participants first completed the screener survey, posted on MTurk through Turk Prime as an assessment of health

and well-being. At the end of the survey, participants entered their MTurk IDs, age, and gender. Participants who completed the survey and passed the hidden attention check in the depression inventory were compensated \$.25.

Main survey. At the end of each day, the screener survey data were downloaded and cleaned to obtain the MTurk IDs of eligible participants (i.e., participants with heightened depressive symptomatology who had not yet sought help). When setting up the main survey data collection for the following morning, MTurk IDs were entered into TurkPrime so that only these participants could access the survey link. It was predetermined that only responses from participants who completed the main survey within 72 hours as in Straszewski and Siegel (2018) would be retained. This was controlled by setting the start and end time for each survey link to reflect a 72-hour completion window. As depressive symptomatology can fluctuate, a shorter time gap between assessment and the main survey would help ensure that participants' reported symptomatology would not have changed (and if so, not substantially) by the time they completed the main survey.

After consenting to participate in the main survey, participants completed an audio test to be sure they could hear the voiceover in the videos. Those who passed the audio test were then randomly assigned to one of the three video conditions: S-PSA, comparison PSA, and basic control (see Appendix D for video transcripts and links to the videos). The S-PSA (6:20) began with a message indicating that “dedicating a small moment of your day to your mental health can make a difference” and then introduced the video as a Mental Health Moment. The video led into an introduction to savoring, describing ways that people could savor, showing pictures of journal articles on savoring studies, and indicating that savoring could improve well-being over time. When the guided savoring exercise began, participants were asked to minimize any distractions

around them; the exercise itself took approximately 4 minutes. To improve the flow of the S-PSA, the relational savoring task from Study 1 was slightly modified. For example, the videos referred to a positive experience shared with “someone you care about [and] enjoy spending time with” rather than “a loved one” to make the task more accessible. Some additional phrases included in the S-PSA (e.g., “Let this memory fill your body with [these] positive sensations and emotions by visualizing it sinking in”) were adapted from an existing savoring visualization exercise video (Clarity Psychological Services, 2017). At the end of the S-PSA, the voiceover thanked participants for being a part of the Mental Health Moment and included a help-seeking message, noting that participants would have an opportunity to access more information on the next page if they would like.

The comparison PSA (6:12) was similar to the S-PSA but was a Mental Health Moment on decluttering one’s life. The video started with an introduction to decluttering, indicated the benefits of decluttering, described ways that people could declutter using the KonMari method (KonMari Media Inc., 2019), and displayed pictures of Marie Kondo who created the decluttering method. At the end of the comparison PSA, the same introductions and final help-seeking message from the S-PSA was displayed. The basic control video (:44) introduced the study, stating, “In the next few moments, we will be asking you some questions about depression and seeking help for depression,” and then presented the same help-seeking message included at the end of the S-PSA and comparison PSA. After the videos, participants completed the outcome measures, were debriefed, and received \$1.00 to \$3.00 for their time.

Participants. The final sample size was comprised of 1,238 participants (60.02% female) recruited on MTurk through Turk Prime as in Study 1. All participants were required to be English-speaking, United States residents, and 18 years or older ($M = 35.54$, $SD = 10.62$). They

also were required have at least a 90% approval rate on MTurk. Unlike in Study 1 where only those who completed at least 50 surveys were able to see the survey link posted on MTurk, this minimum criterion was not utilized in Study 2 after considering findings in Robinson, Rosenzweig, Moss, and Litman (2019). According to Robinson et al., opening up the survey to those who may not have completed as many surveys would allow for a broader range of participants, namely, not only selecting participants who may be experienced survey-takers. Further, removing this criterion increased the likelihood of obtaining new participants who have not taken one of the prior savoring studies also collected on MTurk (e.g., Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017). All participants in Study 2 reported experiencing heightened depressive symptomatology at the time of the study and had not talked to anyone regarding how they had been feeling ($M = 22.64$, $SD = 7.80$; 563 mild, 404 moderate, and 271 severe depressive symptomatology). Among the conditions, there were 398 participants in the S-PSA condition, 420 in the comparison PSA condition, and 420 in the basic control condition.

Measures for screener survey. In addition to the measures used in Study 1, the survey included items assessing participants' physical and self-care activities. Following the informed consent page and passing the captcha placed at the beginning of the study rather than at the end, participants completed items asking about their physical health, the depression inventory, perception of current symptomatology, past help-seeking behaviors, and an item about what they do for self-care. The depression inventory ($\alpha = .83$), perception of current symptomatology, and current help-seeking behavior items were identical to Study 1 with the exception that the Yes/No item asking participants if they have sought help from anyone prior to asking about the particular sources they had sought help from (i.e., loved ones or a professional) was removed to cut down on the number of items in the screener survey.

Physical health. To help disguise the purpose of the screener survey, participants were first asked to indicate their level of overall health (i.e., “Overall, I am in good physical health”), using a 7-point, Likert-style scale, 1 (*Strongly disagree*) to 7 (*Strongly agree*). Next, they completed the 12-item Wellness Behaviors Inventory (Sirois, 2001). For example, participants were asked to think back over the last 3 months and indicate how often they ate fresh fruits and vegetables: *Less than once a week*, *One day a week*, *2-3 days a week*, *4-5 days a week*, or *Every day of the week*. Compared to prior studies ($\alpha = .64$ to $.73$ across 14 data sets, Sirois, Kitner, & Hirsch, 2015), the internal consistency of this scale in the current study was low ($\alpha = .59$). However, responses to this scale were not examined.

Self-care. At the end of the survey, participants responded to an open-ended item that asked participants to indicate at least one thing they do for self-care. This item also served as an attention check.

Measures for main survey. After the video, participants completed measures assessing help-seeking behavior, attitudes, and intentions. Help-seeking intentions were measured using the GHSQ from Study 1 ($\alpha = .77$). Following the help-seeking outcome measures, participants completed a relatedness scale, attention checks, and the same past-help-seeking experience and demographics items used in Study 1 (see Appendix E for the additional measures included in Study 2).

Audio test. An audio track of someone repeating “popcorn” was prerecorded, and participants were asked to select the word they heard from a list of 8 options. Participants that chose an incorrect response were unable to complete the rest of the survey.

Help-seeking behavior. As a proxy for help-seeking behavior, one item was included immediately following the videos. This item, used previously in Webb and Siegel (2019),

referenced the help-seeking message displayed at the end of the videos and asked participants, “Would you like to some information about the help-seeking resources that are available?”

Participants were given two response options: 1 (*Yes, I would like some information about the help-seeking resources available*) or 2 (*No, I would not like some information about the help-seeking resources available*). The question also explicitly mentioned that selecting “Yes” would result in receiving information and hyperlinks to resources for connecting with mental health professionals and free support programs on the next page, and clicking “No” would take participants to the next page in the survey (see Appendix E for the links listed in the help-seeking resource page).

Help-seeking attitudes. Help-seeking attitudes were measured using five, 7-point semantic differentials from Hollar and Siegel (2019a). Participants first read a definition of depression and then responded to the item, “If I were experiencing depression, seeking help would be,” using the following semantic differentials: negative/positive, harmful/helpful, bad/good, worthless/valuable, and foolish/wise. The internal consistency of these items was acceptable ($\alpha = .93$) and resembled that in Hollar and Siegel ($\alpha = .93$).

Relatedness. A 6-item relatedness subscale of the Balanced Measure of Psychological Needs scale (BMPN; Sheldon & Hilpert, 2012) was used to both hide an attention check and for exploratory analyses. Although the original scale presented items in the past tense, all items were asked in the present tense to match the present tense format of the other outcome measures. For example, participants used a 7-point, Likert-style scale to indicate the extent that they 1 (*Completely Disagree*) to 7 (*Completely Agree*) with items such as, “I feel close and connected with other people who are important to me,” as in Neubauer and Voss (2018). Three of the items were reverse-coded. In terms of assessing psychological need satisfaction, the BMPN has been

found to have better construct validity and predictive power (Sheldon & Hilpert, 2012) than the Basic Psychological Needs Scale (Gagné, 2003). As in previous studies that have used the BMPN ($\alpha = .90$, Neubauer & Voss, 2018; $\alpha = .78$, Sheldon & Hilpert, 2012), the internal consistency of the relatedness subscale was acceptable ($\alpha = .72$).

Attention checks. A series of attention checks were included at the end of the survey. The first attention check was included at the end of the relatedness scale and asked participants to “Please select option five for this question.” Those who failed to select the correct answer were not eligible to complete the rest of the survey. Participants that passed this attention check proceeded to the next page where they completed items about the videos. To increase the likelihood that participants answered honestly, the instructions included a clause that indicated participants would be able to complete the rest of the survey and would be paid regardless of the way they responded. First, they were asked to select the video they watched from a list. Next, they were asked if they watched the entire video 1 (*Yes*) or 2 (*No*). Those who indicated they watched the whole video used a 100-point slide to report on how enjoyable they found the video, 1 (*Not at all Enjoyable*) to 100 (*Very Enjoyable*). For those in the savoring video conditions, additional items included a slider about how well they thought they did the guided savoring exercise from 1 (*Not at all Well*) to 100 (*Extremely Well*), and an open-ended item that asked participants, “What memory did you savor during the savoring mental imagery exercise?” All participants received the final attention check question: “How attentive do you think you were during the video?” and responded using on a 7-point, Likert style, 1 (*Not at all Attentive*) to 7 (*Attentive the Whole Time*).

Data analytic plan. Similar data cleaning and data preparation procedures were used to test Study 2 hypotheses except for needing to read through participants’ responses. After checking

the ANCOVA assumptions, two one-way ANCOVAs, controlling for age, gender, depression inventory score, and perception of current symptomatology with 5,000 bootstrapped samples, were used to test the overall effect of the videos on help-seeking attitudes and intentions. Fisher's LSD was used for the planned comparisons in line with the hypotheses. For the help-seeking behavioral outcome, sequential logistic regression assumptions were first examined prior to assessing the effects of the videos, also controlling for age, gender, depression score, and perception of current symptomatology with 5,000 bootstrapped samples. All the covariates were retained in all of the models regardless of significance. However, results of the analyses also were examined without the inclusion of the covariates for exploratory purposes.

In line with the preregistration, additional analyses were examined for exploratory purposes. Beyond examining the main analyses without the inclusion of the covariates, we also wanted to assess if the relational savoring video condition would lead to greater relatedness than the comparisons video and basic control video. Although Quoidbach et al. (2010) initially discussed the potential for need satisfaction as a mediating mechanism, empirical evidence for need satisfaction comes from a savoring intervention by Layous et al. (2018). Layous et al. found that savoring through a lens of temporal scarcity increased global well-being through greater satisfaction of Ryan and Deci's (2000) three fundamental psychological needs. Further, Borelli et al. (2014) found that relational savoring was associated with greater relationship satisfaction than personal savoring and the control condition. In line with the results of these studies, differences on relatedness, one of the three fundamental psychological needs, among the videos were examined using the relatedness subscale (Sheldon & Hilpert, 2012) used in Layous et al. A one-way ANCOVA on relatedness, controlling for age, gender, score on the depression inventory, and perception of current symptomatology with 5,000 bootstrapped samples was used, with

Fisher's LSD t-tests for planned comparisons. It was preregistered that if the relational savoring video was associated with greater relatedness and if the relational savoring video was associated with greater help-seeking attitudes, intentions, and behaviors, a follow-up set of mediational analyses would be examined. Namely, additional exploratory analyses using the PROCESS macro in SPSS (Hayes, 2013) would be included to test a mediation model using 1) savoring versus the basic control video and then 2) savoring versus the comparison PSA on the three help-seeking outcomes with relatedness as a mediator, controlling for age, gender, depression score, and perceptions of current symptomatology as in prior analyses.

Finally, additional analyses were examined as an attempt to replicate prior findings in previous help-seeking research. In Straszewski and Siegel (2019), the effect size, although small, of the high-arousal savoring writing task on help-seeking intentions versus the control writing task more than doubled, although still a small effect, when only those who perceived to be experiencing depression were included in the sample (i.e., reporting a 3 or greater on the perception of current symptomatology item). As such, the original two ANCOVAs and the sequential logistic regression were considered without perception of current symptomatology as a covariate but rather as a filter, such that the sample was comprised of only people who reported at least a score of 3 on this item.

Differences across the levels of depressive symptomatology had previously been examined in Hollar and Siegel (2019b) and Lueck (2018), as people with heightened depressive symptomatology tend to have stronger, more negative attitudes toward seeking help (for a discussion, see Siegel et al. 2017). As such, an interaction between condition and depression score on each of the help-seeking outcomes was explored in the current study. Lastly, as prior help-seeking experience can color the way an individual currently perceives help-seeking (i.e., a

more negative past help-seeking experience is associated with stronger and more negative attitudes toward seeking help; Siegel et al., 2017), the interaction between condition and rating of a previous help-seeking experience among those who have sought help past was examined across the three help-seeking outcomes.

Data Cleaning

Screener. The original Qualtrics file included 21,913 participants. As in Study 1, participants were excluded for not consenting to the screener portion of the survey ($n = 44$), choosing to exit the survey because of suicidal ideation ($n = 158$), not passing the attention check hidden in the depression inventory ($n = 337$ did not answer the question and $n = 1,858$ selected the incorrect response), having a depression score lower than 14 ($n = 11,108$), already seeking help ($n = 4,955$ from a loved one; $n = 491$ from a professional), not writing about an activity they do for self-care ($n = 11$ left it blank; $n = 6$ did not answer the question as asked), having a duplicate MTurk ID ($n = 4$) and, not explicitly mentioned in the preregistration but a necessity, not reporting a valid MTurk ID number, as this was needed to invite participants back for the main survey ($n = 33$). Three more participants were excluded, as they mentioned already being on depression medication in the feedback question at the end of the screener survey. Across all the screener collection batches, 2,905 were eligible for the main survey.

Main survey. The main survey batches were combined into one dataset, totaling 1,917 participants (i.e., a 65.98% completion rate). Those who did not provide their consent were removed ($n = 1$). In line with the preregistration, participants were excluded for failing the audio test ($n = 57$ did not answer; $n = 22$ selected the incorrect response), not staying on the page for the duration of their video ($n = 39$ did not watch a video and exited survey; $n = 106$ in savoring; $n = 108$ in comparison; $n = 22$ in basic control), staying on the page for more than double the

amount of time of the video they were assigned ($n = 13$ in savoring; $n = 7$ in comparison; $n = 29$ in basic control), leaving the behavioral item blank ($n = 1$), leaving at least one of the attitudes items blank ($n = 6$), leaving at least one of the help-seeking intentions items blank ($n = 0$), reporting more than two N/A's in the help-seeking intentions scale ($n = 4$), leaving at least one of the relatedness items blank ($n = 1$), failing the attention check in the relatedness scale ($n = 8$), selecting an incorrect response when asked to indicate which video they saw ($n = 1$ left it blank, $n = 9$ in savoring [65 participants who selected "type of therapy" were retained, as many referenced confusion with this question in the feedback section due to the cognitive task being similar to a form of positive psychotherapy; Seligman, Rashid, & Parks, 2006]; $n = 8$ in comparison; $n = 106$ in basic control), reporting that they did not watch the whole video they were assigned ($n = 0$), reporting that they did not pay enough attention during the video (i.e., 5/7; $n = 78$), and forgetting what they had savored and writing about something irrelevant ($n = 11$). Those with missing MTurk IDs ($n = 2$) and duplicate IDs ($n = 3$) were removed. This dataset was then merged with the screener dataset, using participants' MTurk IDs to match responses across the two surveys. An additional 12 participants were removed for not being able to match the main survey to screener responses. No participants failed to report their age and gender. As such, 1,263 participants were retained.

After creating the condition and depression level categorical variables, composites were created for help-seeking attitudes, help-seeking intentions, and relatedness. All continuous variables were inspected for variations from normality. Depression score (calculated and downloaded from Qualtrics), perception of current symptomatology, and age were examined across all the conditions; help-seeking attitudes, help-seeking intentions, and relatedness were examined separately for each condition. Participants were removed for being univariate outliers

($n = 24$) and multivariate outliers identified using Mahalanobis distance ($n = 1$; Tabachnick & Fidell, 2019). Skew and kurtosis values were within the recommended range (± 2 ; Tabachnick & Fidell, 2019), so no transformations were necessary. The final sample size was 1,238 participants.

Prior to analysis, ANCOVA assumptions were examined, beginning with the independence of covariate and treatment effect. Results indicated that the assumption was satisfied: age, $F(2,1235) = 1.22, p = .297$; gender, $\chi^2(6) = 2.34, p = .886$; depression score, $F(2,1235) = .44, p = .642$; and perception of current symptomatology, $F(2,1235) = .13, p = .879$. The assumption of homogeneity of regression slopes assumption also was satisfied for help-seeking attitudes, as none of the interactions between each covariate and the condition on help-seeking attitudes were significant: age, $F(2,1218) = 1.69, p = .185$; gender, $F(5,1218) = 1.12, p = .349$; depression score, $F(2,1218) = 1.53, p = .217$; perception of current symptomatology, $F(2,1218) = .18, p = .840$ (Field, 2013). For help-seeking intentions, the interaction of the condition variable with age, $F(2,1218) = .01, p = .991$, gender, $F(5,1218) = 1.20, p = .306$, and depression score, $F(2,1218) = .84, p = .434$, were all non-significant. However, there was a significant interaction between condition and perceptions of current symptomatology: $F(2,1218) = 3.02, p = .049$. As such, the analyses were considered with and without the inclusion of this covariate. Non-significant Levene's tests for both help-seeking attitudes, $F(10,1227) = .64, p = .779$, and help-seeking intentions, $F(10,1227) = .54, p = .866$, indicated this assumption was also satisfied for these two outcomes.

Results

Preregistered main analyses. For the ANCOVA testing the effect of the videos on help-seeking attitudes, there was no overall effect of condition when controlling for age, gender,

depression score, and current symptomatology and using 5,000 bootstrapped samples, $F(2,1229) = .42, p = .660, \eta_p^2 = .001$. Among the covariates, all were significant predictors of help-seeking attitudes except age: gender, $F(3,1229) = 10.05, p < .001, \eta_p^2 = .024$; depression score, $F(1,1229) = 11.82, p < .001, \eta_p^2 = .010$; perception of current symptomatology, $F(1,1229) = 11.60, p < .001, \eta_p^2 = .009$. Although it was predicted that the S-PSA would lead to greater help-seeking intentions than both the comparison PSA and basic control, none of the planned comparisons using Fisher's LSD indicated significant differences between the conditions, $p > .05$ (see Table 2 for estimated marginal means and standard errors). The pattern of results remained the same without the inclusion of the covariates.

For help-seeking intentions, the ANCOVA testing the effect of the videos on help-seeking attitudes, controlling for age, gender, score on the depression inventory, and perception of current symptomatology with 5,000 bootstrapped samples, also was not significant, $F(2,1229) = .025, p = .975, \eta_p^2 < .001$. Among the covariates, gender, $F(3,1229) = 3.96, p = .008, \eta_p^2 = .010$, depression score, $F(1,1229) = 22.63, p < .001, \eta_p^2 = .018$, and perception of current symptomatology, $F(1,1229) = 47.18, p < .001, \eta_p^2 = .037$, were associated with help-seeking intentions. Age again was not a significant covariate. There also were no significant differences between the planned comparisons. Planned comparisons were examined in like with the preregistration, but there were no differences between the S-PSA, comparison PSA, and basic control, $p > .05$ (see Table 2 for estimated marginal means and standard errors). The ANCOVA was considered without the inclusion of perception of current symptomatology, which had violated the assumption of homogeneity of regression slopes. However, the pattern of results remained unchanged. The model also was examined without the inclusion of the covariates, but no differences in the pattern of results were evident.

Table 2

Study 2 – ANCOVA Estimated Marginal Means and Standard Errors for Help-Seeking Attitudes and Help-Seeking Intentions

<u>Condition</u>	<u>Help-Seeking Attitudes</u>	<u>Help-Seeking Intentions</u>
Savoring PSA Video	5.84 (.18)	4.24 (.20)
Comparison PSA Video	5.88 (.18)	4.25 (.19)
Basic Control Video	5.81 (.18)	4.23 (.19)

Note. Estimated marginal means for each condition on help-seeking intentions include age, gender, depression score, and perception of current symptomatology as covariates. Standard errors are listed in parentheses.

A sequential logistic regression analysis was used to test the effect of condition on the likelihood to choose to access more information about how to seek help, using condition as a predictor and age, gender, score on the depression inventory, and perception of current symptomatology as covariates and 5,000 bootstrapped samples. To be able to consider a sequential logistic regression analysis for the help-seeking behavioral outcome, the assumption of multicollinearity was examined; this assumption was satisfied (age, Tolerance = .99, VIF = 1.01; depression score, Tolerance = .72, VIF = 1.38; perception of current symptomatology, Tolerance = .73, VIF = 1.34). Further, the dependent variable had an acceptable split, with 79.16% of participants not wanting more information, and 20.84% interested in receiving help-seeking information.

Results of the logistic regression analysis indicated that the model incorporating all the covariates in Step 1 significantly predicted asking for more help-seeking information, $\chi^2(6) = 38.30, p < .001$. Approximately 79.16% of the cases were correctly classified. According to the Cox & Snell pseudo R^2 test, the final model accounted for 3.04% of the total variance; the Nagelkerke pseudo R^2 test indicated 4.75% of the variance was accounted for by the model. A non-significant Homer and Lemeshow Test indicated a good fit of the model to the data, $\chi^2(8) = 6.02, p = .645$. Among the covariates, only depression score, $B = .03, SE = .01, Wald = 7.98, p = .005$, and perceptions of current symptomatology, $B = .15, SE = .05, Wald = 10.08, p = .001$, met

the cut-off for significance. For each additional scale point on the depression inventory, the predicted odds that someone will ask for more information about help-seeking versus not asking are 1.03 times as great if equivalent on all the other variables. For each additional scale point on the perception of current symptomatology item, the odds of asking for more help are 1.16 times as great if equivalent on all other variables.

In Step 2, condition was entered as a dummy code, using the basic control as the reference category. Although the overall model was significantly associated with being more likely to seek more help-seeking information ($\chi^2[8] = 39.78, p < .001$; Cox & Snell pseudo $R^2 = .032$; Nagelkerke pseudo $R^2 = 4.93\%$), the S-PSA and comparison PSA were not significant. Further. Although the non-significant Homer and Lemeshow Test indicated good model fit, $\chi^2(8) = 5.87, p = .662$, -2 log-likelihood remained relatively unchanged from Step 1 (1228.99) to Step 2 (1227.51). The pattern of the covariates from Model 1 also remained unchanged with the inclusion of the condition variable. The model in Step 1 was thus the better model; it was the more parsimonious model.

Preregistered exploratory analyses. A series of exploratory analyses also were examined in line with the preregistration. For each exploratory analysis, effects were examined across the three central outcomes: help-seeking attitudes, help-seeking intentions, and help-seeking behavior.

Examining between-group differences on relatedness. Results of a one-way ANCOVA indicated that there was not a significant difference between the videos on relatedness when controlling for age, gender, score on the depression inventory, and perception of current symptomatology and using 5,000 bootstrapped samples, $F(2, 1229) = .19, p = .828, \eta_p^2 < .001$. Only depression score and perception of current symptomatology significantly predicted

relatedness. None of the planned contrasts were significant, $p > .05$. Since the conditions did not differ in relatedness (S-PSA, $M = .78$, $SE = .17$; comparison PSA, $M = .74$, $SE = .16$; basic control, $M = .77$, $SE = .16$), the follow-up mediation models were not examined.

Selecting participants who self-reported experiencing depression. Selecting only participants who reported 3 or greater on the perception of current symptomatology item ($n = 856$) and removing it as a covariate, results of the ANCOVA did not reveal a significant effect on help-seeking attitudes, $F(2, 848) = .789$, $p = .455$, $\eta_p^2 = .002$, or help-seeking intentions, $F(2, 848) = 1.44$, $p = .238$, $\eta_p^2 = .003$. Gender and depression score were both significant covariates, $p < .01$, for help-seeking attitudes, but only depression score was a significant covariate for help-seeking intentions, $p < .001$. Selecting only those with a 3 or greater also did not change the pattern of results in the sequential logistic regression compared to the models that included all the participants and perception of current symptomatology as a covariate. However, the exclusion of this covariate resulted in a smaller proportion of accounted variance ($\chi^2[10] = 40.32$, $p < .001$; Cox & Snell pseudo $R^2 = .032$; Nagelkerke pseudo $R^2 = .050$).

Including the interaction between condition and depression score. When looking at help-seeking attitudes as the outcome, results indicated only a significant main effect of depression score, such that greater depression was associated with more negative help-seeking attitudes, $\beta = -.12$, $t = -2.26$, $p = .024$. Neither the interaction between depression score and S-PSA or depression score nor the comparison PSA were significant, $p > .05$. Among the covariates, results indicated that females were more likely to express positive attitudes toward seeking help, $\beta = .15$, $t = 5.19$, $p < .001$. Greater perceptions that one may be experiencing depression also was associated with more negative help-seeking attitudes, $\beta = -.11$, $t = -3.39$, $p < .001$. The pattern of results was the same for help-seeking intentions, $p > .05$. The interaction

between condition and depression score also did not account for more variance in the help-seeking behavior item, evidenced by the results of a binary logistic regression, $p > .05$.

Including the interaction between condition and quality of past help-seeking experience. As these analyses only included those who had sought help for a previous bout of depression, the sample size was 587. For help-seeking attitudes, although there was a main effect for past help-seeking experience, $\beta = .50$, $t = 7.91$, $p < .001$, the interaction was not significant. The same pattern of results was evident for help-seeking intentions. However, for help-seeking behavior, results of a binary logistic regression did not indicate that prior help-seeking experience was significantly associated with requesting more help-seeking information, and the interaction also was not significant.

Additional exploratory analyses. As in Study 1, additional analyses were explored to assess the effect of condition on help-seeking attitudes, help-seeking intentions, and help-seeking behavior among those who self-reported paying full attention (i.e., 7/7 on the total attention item; $n = 717$). Results of a one-way ANCOVA, controlling for age, gender, depression score, and perception of current symptomatology, did not indicate a significant effect of condition on help-seeking attitudes, $F(2,708) = 1.94$, $p = .144$, $\eta_p^2 = .005$. Gender, depression score, and perception of current symptomatology were all significant covariates, $p < .05$. The same planned comparisons from the main analyses were considered. Results indicated that the comparison PSA ($M = 6.16$, $SE = .30$) differed significantly from the basic control ($M = 5.98$, $SE = .29$), $p = .049$, 95% CI of the difference [.001, .362], but not from the S-PSA ($M = 6.06$, $SE = .30$); the S-PSA also did not differ from the basic control. For help-seeking intentions, there was again no effect of condition, $F(2,708) = .24$, $p = .789$, $\eta_p^2 = .001$, but the same covariates were significant at the $p < .05$ level. None of the planned comparisons were significant (S-PSA, $M = 4.34$, $SE = .33$;

comparison PSA, $M = 4.41$, $SE = .33$; basic control, $M = 4.36$, $SE = .32$). There again were no differences from the prior binary logistic regression on the help-seeking behavior item.

Discussion

Study 2 served as a test of the ecological validity of the results of Study 1 and of the overall savoring PEI approach. The relational savoring writing task from Study 1 was used to create an S-PSA in the form of a video where participants learned about savoring and were led through the savoring exercise. Although the S-PSA was predicted to be more effective than the comparison PSA and basic control, results did not reveal significant differences between the three video conditions on help-seeking attitudes, help-seeking intentions, and help-seeking behavior. Among the exploratory analyses, one exception was present: when selecting only individuals who had self-reported paying full attention to the videos, the comparison PSA was associated with significantly greater help-seeking attitudes from the basic control. No other differences were evident across the three outcomes when selecting only people who believed to be experiencing depression and those had sought help in the past. Further, unlike in Hollar and Siegel (2019b) and Lueck (2018), the pattern of results was the same, regardless of depression score. There also were no differences between the videos in terms of relatedness (i.e., feeling connected to close others; Sheldon & Hilpert, 2012), which was unexpected, as relational savoring focuses on an experience shared with a loved one, and prior studies have supported the positive influence of savoring on need satisfaction (Layous et al., 2018).

Although relational savoring has had success in the form of writing tasks on a variety of outcomes (e.g., Bond & Borelli, 2017; Borelli et al., 2014; Holness, 2017), including help-seeking intentions in Study 1, the lack of effects when incorporated into a video bring to light the possibility that the video may not have induced the same level of effortful processing, or “a

process [that] requires attention and thereby takes place serially, inhibits other pathways, and is influenced by cognitive capacity limit,” “improves with practice,” and “can be used to cause learning” (Hartlage, Alloy, Vázquez, & Dykman, 1993, p. 248). When individuals with heightened depressive symptomatology engage in effortful processing, automatic processing is minimized, leading to a temporary reduction in depressogenic schemas (Hartlage et al., 1993). However, as individuals with heightened depressive symptomatology tend to exhibit decreased cognitive control (Mennen, Norman, & Turk-Brown, 2019) and executive functioning (Koster, Hoorelbeke, Onraedt, Owens, & Derakshan, 2017), completing the savoring exercises as a mental task, as opposed to a writing task, may have been more difficult, as it may have required more cognitive effort to minimize conflicting automatic negative thinking (Beck, 1967) and spontaneous rumination (Mennen et al., 2019). This theorizing is discussed in more detail in the General Discussion.

Another potential consideration for the lack of effects of the S-PSA is the introduction to savoring included at the beginning of the video. The introduction, which served as a transition from the introduction of the Mental Health Moment to the guided savoring exercise, indicated that savoring can result in greater well-being over time and included pictures of empirical articles on savoring. Although this information was brief (i.e., approximately 30 seconds) and only well-being was mentioned as a benefit of savoring, this still may have set an expectation regarding the effects of savoring before participants started the guided exercise. Accordingly, Mauss, Tamir, Anderson, and Savino (2011) found that participants who were told, “...recent research shows that people who are able to achieve the greatest amount of happiness...can experience long-term beneficial outcomes,” before watching a positive film about a prize-winning, female skater reported lower happiness following the video (p. 6). Mauss et al. discussed that this effect may

have been a result of the instructions setting an expectation that individuals may not have felt they reached. Further, being asked to do a guided savoring exercise before answering help-seeking questions may have made participants feel manipulated, potentially inducing a state of psychological reactance (Brehm, 1966). Although the introduction in the comparison PSA also highlighted how decluttering could help improve one's life, participants were not asked to do anything with the information they were given in the video, potentially making the video seem less manipulative than the S-PSA. Providing some support for this idea, the comparison PSA resulted in more positive help-seeking attitudes than the basic control video among participants who reported paying attention during the whole survey. When presenting messages to individuals with heightened depressive symptomatology, these are valid concerns due to the tendency to perceive information in a negative light as a result of cognitive distortions characteristic of depression, especially when information is self-relevant (see Siegel et al., 2017, for a review and examples).

Although a strength of this study is that it tested the PSAs among individuals with heightened depressive symptomatology rather than the general population as cautioned by the results in Siegel et al. (2019), there are some limitations to consider. First, due to the nature of the video, the only way to assess if 1) the relational savoring memory participants selected was indeed a relational experience and 2) if participants completed the guided savoring exercise as asked, was through participant self-report. Unlike in Study 1 where the responses were checked for relevance and completeness, the videos did not allow for this kind, or this level, of verification of task-completion. Additionally, although the videos were piloted, some participants noted difficulty hearing parts of the videos in the feedback section at the end of the survey. Although this was a small percentage of participants, as many did report enjoying the

video, others also may have experienced some audio trouble without explicitly mentioning it. Finally, separating the screener from the main survey resulted in needing to recruit double the number of participants anticipated due to the low completion rates (i.e., approximately half of those invited back). Over the three months of data collection, compensation for the main survey was increased to help improve the completion rate; after the increase in payment, the highest completion rate among the batches was 78%. Although the current study is not without limitations, it expands on prior research by being among the first to test the savoring construct in the form of a video PSA.

CHAPTER 6

General Discussion

Researchers have long studied the effect of positive emotion on cognition (e.g., increased cognitive flexibility; Isen & Daubman, 1984). More recently, researchers have turned toward the application of positive emotion to improve subjective well-being, psychological well-being (i.e., a sense of mastery, purpose, and meaning in life), and depressive symptomatology (Bolier et al., 2013). Seeing an opportunity for a novel application of positive emotions, Siegel and Thomson (2016) investigated whether positive emotions could be used as a motivational approach (i.e., PEI) to increase help-seeking intentions for individuals with heightened depressive symptomatology. Results of this initial PEI approach highlighted the potential for positive emotions to improve help-seeking but also underscored the importance of continued research, as not all positive emotions, and methods of inducing positive emotions, produce desirable outcomes. In line with this call for research, Straszewski and Siegel (2018) utilized savoring (Bryant, 1989) as a method of inducing positive emotion to increase help-seeking intentions. Following from this preliminary work, the purpose of this dissertation was to expand this area of research by testing whether reducing the self-focus nature of the savoring writing task could improve savoring's effectiveness on help-seeking (Study 1) and whether the effects of a savoring writing task would carryover when tested in a video (Study 2).

Study 1 was used to identify the strongest form of savoring to test in a video for Study 2. Similar to Straszewski and Siegel (2019) that controlled for the type of positive experience savored, Study 1 varied levels of self-focus, as, for this population, reduced self-relevance is associated with lower levels of automatic negative thoughts (Clark et al., 1999). However, only the relational savoring condition differed from the neutral control when controlling for past help-

seeking experience and when selecting only individuals who reported paying full attention. Further, the difference between relational savoring and combination savoring was significant but in the opposite direction, with relational savoring being associated with greater help-seeking intentions.

Since relational savoring was the condition that most consistently differed from the neutral control and combination savoring in Study 1, relational savoring was selected for the S-PSA in Study 2. Participants were randomly assigned to the S-PSA, comparison PSA, or a basic control video that only included instructions about the survey. Counter to the hypotheses, results indicated no significant differences between the conditions across the preregistered planned and exploratory analyses with one exception: among those who reported paying full attention, the comparison PSA was associated with greater help-seeking attitudes than the basic control. Rather than replicating findings from prior savoring research on help-seeking intentions (Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017) and prior applications of relational savoring (e.g., Borelli et al., 2014; Borelli et al., 2019), results of Study 2 bring to light the potential importance of engaging in effortful processing during the guided savoring exercise.

As briefly mentioned in the previous discussion, null results of Study 2 may be attributed to participants' inability to engage in the same level of effortful processing during the guided savoring exercise in the video as in savoring writing tasks (Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017). In the S-PSA, rather than staying engaged by typing out a response, participants would have had to engage in greater cognitive control and emotional regulation to reflect on their positive experience amidst competing internal distractions (i.e., automatic negative thoughts; Beck, 1967). Because of the additional cognitive load placed on participants during the video, it may have been harder for participants to cross this threshold via the guided

savoring exercise than the writing. This is to a detriment, as among individuals with depression, effortful processing has been found to inhibit “spontaneously [ruminating] on negative thoughts, especially about themselves” (Mennen et al., p. 266). Underscoring the importance of effortful processing, researchers have found success in the application of tasks meant to induce effortful processing (i.e., neurobehavioral therapies such as attending to various sounds in one’s environment sounds while minimizing one’s attentional shift to ruminative thoughts; Wells, 2000) on outcomes such as self-reported trait rumination (Siegler, Ghinassi, & Thase, 2007) and levels of depressive symptomatology (Calkins, McMorran, Siegler, & Otto, 2015; Siegler et al., 2007).

In addition to potential lower levels of effortful processing due to the nature of the task (i.e., mental task versus a writing task), it is likely that the unconstrained pauses in the video intended for deeper reflection may have placed an even greater burden on participants, thereby further impeding effortful processing. Individuals with heightened depressive symptomatology already tend to have lower baseline levels of effortful processing (see Hartlage et al., 1993, for a review), cognitive control (Mennen et al., 2019), emotion regulation (Mennen et al., 2019), and executive functioning (e.g., verbal working memory, planning, and rule shifting; Koster et al., 2017; Snyder, 2013); when faced with an unconstrained task, these may be maximized. With less structure, there is more opportunity for spontaneous rumination; according to Gotlib and Joormann (2010), individuals with heightened depressive symptomatology experienced greater decreased working memory and inhibitory processes during unconstrained, versus more constrained tasks. Taken together, results of Study 2 provide additional support for not only the need to exhibit a high level of focus during a savoring task (Bryant & Veroff, 2001) but

potentially also for the S-PSA not being able to induce sufficient effortful processing for savoring to work as intended among individuals with heightened depressive symptomatology.

Although results of Study 2 were not as hypothesized, this pattern of results (i.e., the effectiveness of an approach via a writing task but not through a video) is in line with results of prior help-seeking studies that found success when manipulations were tested using a writing task but not videos. Hollar and Siegel (2019b) tested whether self-distancing (i.e., writing a time one sought about seeking help from the perspective of an objective other) could be used to increase help-seeking intentions, help-seeking outcome expectations, and self-stigma of seeking professional help among individuals with heightened depressive symptomatology. Although self-distancing via a writing task was successful (Study 1 and Study 3), there were no significant differences between the self-distancing video, the comparison video (i.e., self-immersive condition), and the no video condition on any of the outcomes in Study 2. Tan and Siegel (2017) tested the application of a retrospective form of the foot-in-the-door technique (FITD; i.e., reminding participants of a previous time they asked someone for help to increase their intention to ask for help for their current symptomatology) using videos and found similar results. The FITD attitude strength approach, which indicated no significant differences across the FITD depression PSA (D-PSA), a comparison D-PSA, or no D-PSA conditions on help-seeking intentions, was later found to be effective when utilized in a writing task. As previously discussed, a lack of effortful processing may not only potentially explain the results of Study 2 in the current dissertation but also perhaps findings in Hollar and Siegel and Tan and Siegel.

Another observation across the series of studies examining the effect of savoring on help-seeking among individuals with heightened depressive symptomatology is the decrease in effect sizes since the initial set of studies in Straszewski and Siegel (2018). In Straszewski and Siegel,

participants who were asked to savor a positive experience of their choosing using a writing prompt similar to McMakin et al. (2011) reported greater help-seeking intentions than participants who wrote about what they did yesterday and today, with results equating to a small-to-medium effect size. As a follow-up to this study, Straszewski and Sigel (2019) controlled for the type of experience savored (i.e., one associated with a high-or low-arousal positive emotion) to assess if savoring's effectiveness could be maximized if participants focused on a high-arousal, as opposed to low-arousal, positive emotional experiences. Although results indicated that savoring a time one felt excited differed significantly from the control condition, whereas savoring a time one felt calm did not, there was a small effect size. The effect size doubled when the analyses was considered among individuals who perceived to be currently experiencing depression; however, this was still considered a small effect. In the current studies, Study 1 controlled for the level of focus of each savoring task to assess if reduced self-focus could improve savoring's effectiveness; the effects of this study also were small.

Examining the savoring studies in combination, the added level of specificity in the savoring task instructions was associated with an overall smaller effect on help-seeking intentions. Perhaps being less restrictive regarding which type of positive experience to savor and how to savor may not only lend itself to being a simpler task but also may instill a greater sense of autonomy in participants (Ryan & Deci, 2000). Since individuals with heightened depressive symptomatology tend to have a negative attributional style associated with an external locus of control (Abramson, Seligman, & Teasdale, 1978), this small opportunity for control over their emotion regulation may be an important component of the savoring writing task. Additionally, it also is possible that allowing participants to recall a more distant positive experience, although still considered recent, may have led to a contrast effect (i.e., Joormann,

Siemer, & Gotlib, 2007, as mentioned in McMakin et al., 2011), thereby potentially reducing the size of the effect (see Appendix F for the writing tasks used in Straszewski and Siegel, 2018, and Straszewski and Siegel, 2019). The original study (Straszewski & Siegel, 2018) asked participants to reflect on a positive memory that occurred in the last week, whereas Straszewski and Siegel (2019) and Study 1 did not restrict participants to an exact time frame (i.e., a recent time). This adjustment had been made, as some may not have experienced something exciting/calming (Straszewski & Siegel, 2019) or had a shared positive experience (Study 1) in the last week.

In addition to differences among the savoring writing tasks, reduced effect sizes may also have been influenced by the data collection platform used across all the savoring help-seeking studies (i.e., MTurk). Chandler, Paolacci, Peer, Mueller, and Ratliff (2015) noted that the use of nonnaive respondents, such as MTurk workers, is associated with reduced effect sizes over time due to increased familiarity with experimental paradigms (e.g., Chandler et al., 2015). Participants' responses to the feedback item embedded at the end of the surveys supported the potential for the influence of nonnaivety in the current set of studies. For example, one participant wrote, "I have completed a survey similar to this one before, the questions were about the same. Though this one had a video whereas the other one did not. I believe this survey is hosted by a different university." Whether or not the prior survey had been from another university, this could have influenced their responses to the outcome measures. Further, another colleague had created and used the help-seeking behavior item; if participants had already seen this item and received information about seeking help, they may have been less inclined to ask for it again in the current study.

Limitations

There are limitations across the two studies that one should consider when interpreting and drawing conclusions from the current findings. First, although researchers have supported the use of MTurk, as MTurk has been found to be as reliable as traditional methods of data collection (i.e., undergraduate samples; Buhrmester, Kwang, & Gosling, 2011), the MTurk sample demographics may not be representative of the U.S. population. Compared to the general population, MTurk samples tend to be younger (i.e., approximately 36 years old; Paolacci, Chandler, & Ipeirotis, 2010), unemployed (Shapiro, Chandler, & Mueller, 2013), and more educated (Paolacci et al., 2010). They also tend to have higher rates of MDD; depression rates on MTurk to be 1.6 to 3.6 times as high as the general population estimate (i.e., 7%; Ophir, Sisso, Asterhan, Tikochinski, & Reichart, 2019). Ophir et al. speculated that this difference may be attributed to survey data quality concerns, increased vulnerability to MDD among MTurk workers (e.g., higher rates of social anxiety, income levels, and physical activity), and an underestimation of the prevalence of MDD in the general population. Alternatively, MDD rates on MTurk may be more accurate, as anonymous and confidential screening tools may result in more honest responses online (Ophir et al., 2019).

Another limitation is in regard to the screener for the bonus survey in Study 1 and for the main survey in Study 2. The purpose of the screener was to identify individuals with heightened depressive symptomatology who had not already sought help. However, in Study 1, three participants were excluded due to indicating already being on depression medication. In the screener, the items assessing if participants are already seeking help are displayed if participants indicate a 3 or greater on the 7-point, Likert-style perception of current symptomatology item. The logic in selecting at least a 3 was that if people do not think they are experiencing depressive

symptomatology, they would not seek help (Kelly et al., 2007; Rickwood et al., 2007). However, participants may not have felt they were experiencing depressive symptomatology at the time of the survey due to the help of their current medication. With this in mind, there could be more individuals in these samples that also may have already been on medication, which, depending on how they are distributed across the conditions, could impact the results either positively (i.e., people already seeking help would report greater intentions to seek help) or negatively (i.e., if people are already getting help, they may not request more information about seeking help). Perhaps asking all participants who reported at least a 2 or higher (versus 3 or higher) on perceptions of current symptomatology if they have sought help may improve the screening process. Another approach may be to ask participants if they are currently taking any depression-related medications; this may be a particularly good option, as this type of question has found to be less vulnerable to data integrity threats (Ophir et al., 2019).

Future Directions

The combination of results of Study 1 and Study 2, namely the success of the relational savoring task in Study 1 but null effects in Study 2, bring to light important considerations regarding experimental research on savoring. To further investigate the current findings, researchers may directly compare the writing task versus a guided savoring exercise in the form of a video to test the hypotheses that 1) the video does indeed require greater effortful processing, 2) greater effortful processing during savoring is associated with greater help-seeking, and 3) savoring in the form of a writing task, as opposed to a video, is a more effective motivational approach to increase help-seeking for this population due to greater effortful processing. This study also would serve as a replication of the Study 2 results in Lyubomirsky, Sousa, and Dickerhoof (2006) who found that thinking about, compared to writing or talking

about, one of the happiest experiences of one's life increased life-satisfaction although not positive affect, negative affect, and overall health, physical functioning, pain, role functioning, social functioning, mental health, health perceptions, and physical symptoms.

Researchers also may investigate whether savoring in the form of a video may be effective in an in-person setting similar to Borelli et al. (2019). Rather than presenting savoring as an S-PSA on television or online, a better approach may be to present S-PSAs in classrooms, clinics, and offices. By scheduling a time to savor, it may be possible that people may be more attentive during the guided savoring exercise, increasing its effectiveness. After the savoring exercise, the presenter could share information about seeking help and pass out cards with resources to participants, in line with Siegel and Thomson's (2016) recommendation that a help-seeking opportunity is provided immediately following a PEI. As an example, the S-PSA could be used in a way similar to the 15-minute guided mindfulness meditation exercises included in Kaiser Permanente's (2017) Thrive Thursdays, a wellness program for employees supported by Kaiser Permanente's overall health and well-being initiative. By scheduling a time to engage in the guided activity, employees can stop what they are doing to immerse themselves in the exercise along with their coworkers. By increasing employees' ability (e.g., making it a scheduled event) and motivation through personal relevance (i.e., one is doing this for their own health and well-being), the likelihood of effortful processing during the exercise may increase (Petty & Cacioppo, 1986).

CHAPTER 7

Conclusion

The purpose of the current set of studies was to extend prior research on the application of savoring to increase help-seeking for individuals with heightened depressive symptomatology (Straszewski & Siegel, 2018, 2019; Straszewski et al., 2017). Study 1 examined whether reducing the self-focus nature of the savoring writing task could result in greater help-seeking intentions, as the negative biases associated with depression tend to be maximized with greater self-relevance (Clark et al., 1999; Wisco, 2009). As such, it was predicted that vicarious savoring, self-distanced savoring, relational savoring, and combination savoring, which are all associated with reduced self-focus in different ways, would result in greater help-seeking intentions than the neutral control and personal savoring. Across all the savoring conditions, the combination savoring condition, which was a combination of vicarious savoring and relational savoring, was expected to be the strongest condition, as it was considered the furthest from the self. Results of the central analysis indicated that those in the relational savoring condition reported greater help-seeking intentions than those in the combination savoring condition, and marginally greater help-seeking intentions than those in the neutral control. When selecting only participants who reported paying full attention during the survey, relational savoring was the only condition associated with greater help-seeking intentions than the neutral control; under this condition, it was marginally greater than those in the combination savoring condition. Although the relationships between the savoring conditions in Study 1 were not all as expected, the results of relational savoring are in line with prior research on the utility of relational savoring (e.g., Borelli et al., 2014). As such, relational savoring was selected as the form of savoring to include in the S-PSA in Study 2.

The goal of Study 2 was to test the ecological validity of Study 1 results and prior savoring PEI applications. In Study 2, participants were randomly assigned to the S-PSA, a comparison PSA on decluttering, and a basic control video that displayed the final help-seeking message included in the S-PSA and comparison PSA. After watching the videos, participants completed measures out help-seeking attitudes, help-seeking intentions, and help-seeking behavior. Results indicated no significant differences between the three videos across the three outcomes. It was speculated that, unlike the writing tasks that involved conscious attention in formulating and typing a response, the videos required more effortful processing to reduce internal distractions (i.e., automatic negative thoughts; Beck, 1967). Future researchers may want to further explore the potential for relational savoring, and savoring in general, in a video format in other settings, such as in group setting (i.e., classrooms and offices) that may potentially facilitate greater attentional focus, effortful processing, and thereby overall effectiveness.

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APPENDIX A

Study 1 Writing Tasks

A. Vicarious Savoring

Please think of a recent time that **a loved one (e.g., romantic partner, friend, family member) told you a story of one of their positive experiences.**

- This loved one should be someone you are close with and have positive feelings toward.
- This should be an experience for which **you were not present.**
- This positive experience should be one that your loved ones still sees in a positive light.

Such an experience may not come to mind quickly, so please take your time and think deeply about this.

Once you have the experience in mind, please begin by answering the two questions about this person on the next page.

As we had mentioned, we would like to hear about **this positive experience [LOVED ONE'S NAME] told you a story about.**

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, we ask that you please continue to do so until the time is up.** A timer will be shown below to help you keep track of the time. If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

Based on the amount of time allotted, **a few sentences would be sufficient for a response.**

Once you are ready, please proceed to the next page--thank you again.

First, please write for 2 minutes about the things **[LOVED ONE'S NAME] told you happened in this positive experience as if you were describing a movie scene.** In the next section, we will ask you to tell us about the emotions you believe [LOVED ONE'S NAME] felt, but for now, please just tell us what happened as if you were a journalist reporting on the incident, being as objective as possible.

In the box below, please tell us what occurred in as much detail as possible. Please focus on describing the following:

- What was the setting like in [LOVED ONE'S NAME]'s positive experience?

- Besides [LOVED ONE’S NAME], who else was there at the time?
- What happened in [LOVED ONE’S NAME]'s positive experience?

[TEXT RESPONSE BOX]

On the next page, we will be asking you to write about the positive emotions **you believe [LOVED ONE’S NAME] felt**.

Please take a few seconds to reflect on **the positive emotions you believe [LOVED ONE’S NAME] experienced** before proceeding to the next section.

Please write for 4 minutes about the positive emotions **you believe [LOVED ONE’S NAME] felt during the peak of this positive experience**. In the box below, please describe what [LOVED ONE’S NAME] felt in as much detail as possible as if you were trying to get someone else to experience their feelings in the same way. **Please try your best to focus your attention and time on writing about just the positive thoughts and emotions.**

In providing your response, please respond to the following questions:

- What positive emotions do you think [LOVED ONE’S NAME] experienced?
- How intensely do you believe [LOVED ONE’S NAME] experienced these positive emotions?
- How did [LOVED ONE’S NAME] feel when they were experiencing these positive emotions?
- What physical sensations do you think [LOVED ONE’S NAME] experienced as a result of these positive emotions? For example, did [LOVED ONE’S NAME] experience goosebumps or butterflies in their stomach?

[TEXT RESPONSE BOX]

B. Self-Distanced Savoring

Please think of a recent time that **you had a positive experience**, but **rather than writing about it from your own perspective**, we would like you to **write about it from the perspective of one of the most positive persons you know**.

- This person should be someone who you believe focuses on the best parts of situations and can see the positive even in difficult situations.
- This person can be someone you are close to, although it does not have to be.
- This positive experience should be one you still see in a positive light.

Such an experience may not come to mind quickly, so please take your time and think deeply about this.

Once you have the experience in mind, please begin by answering the two questions about this person on the next page.

As we had mentioned, we would like to hear **about this positive experience but would like you to write about it from [MOST POSITIVE PERSON'S NAME]'s perspective, one of the most positive persons you know.**

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, we ask that you please continue to do so until the time is up.** A timer will be shown below to help you keep track of the time. If you would like to finish writing down your thoughts after the timer has finished, feel free to do so

Based on the amount of time allotted, a few sentences would be sufficient for a response.

Once you are ready, please proceed to the next page--thank you again.

First, please write for 2 minutes about the things that **happened in this positive experience, and please do this as if [MOST POSITIVE PERSON'S NAME] were describing a movie scene with you being the main character in this positive experience.** In the next section, we will ask you to tell us about the emotions [MOST POSITIVE PERSON'S NAME] believed you felt, but for now, please just tell us what [MOST POSITIVE PERSON'S NAME] could have seen happen as if they were a journalist reporting on the incident, being as objective as possible.

In the box below, please tell us what occurred from [MOST POSITIVE PERSON'S NAME]'s perspective in as much detail as possible. Please focus on describing the following:

- Writing from [MOST POSITIVE PERSON'S NAME]'s perspective, what was the setting like in this positive experience?
- Writing from [MOST POSITIVE PERSON'S NAME]'s perspective, besides the main character (i.e., you), who else was there at the time?
- Writing from [MOST POSITIVE PERSON'S NAME]'s perspective, what happened in this positive experience?

[TEXT RESPONSE BOX]

On the next page, we will be asking you to write about the positive emotions **you felt during this positive experience but would like you to write about them from [MOST POSITIVE PERSON'S NAME]'s perspective** as if [MOST POSITIVE PERSON'S NAME] was standing by, watching what **you were experiencing as the main character in this positive experience.**

Please take a few seconds to reflect on **what positive emotions [MOST POSITIVE PERSON'S NAME] may have believed the main character (i.e., you) experienced** before proceeding to the next section.

Please write for 4 minutes about the positive emotions **you felt during this positive experience but please write about them from [MOST POSITIVE PERSON'S NAME]'s perspective** as if [MOST POSITIVE PERSON'S NAME] were standing by, describing what you what **you were experiencing as the main character in this positive experience**. In the box below, please describe what [MOST POSITIVE PERSON'S NAME] could have seen you feel in as much detail as possible as if they were trying to get someone else to experience your feelings in the same way. **Please try your best to focus your attention and time on writing about just the positive thoughts and emotions.**

In providing your response, please respond to the following questions:

- Writing from [MOST POSITIVE PERSON'S NAME]'s perspective, what positive emotions did the main character (i.e., you) experience?
- Writing from [MOST POSITIVE PERSON'S NAME]'s perspective, how intensely did the main character (i.e., you) experience these positive emotions?
- Writing from [MOST POSITIVE PERSON'S NAME]'s perspective, how did the main character (i.e., you) feel when they were experiencing these positive emotions?
- What physical sensations did [MOST POSITIVE PERSON'S NAME] see the main character (i.e., you) experience as a result of these positive emotions? For example, could [MOST POSITIVE PERSON'S NAME] have seen the main character experience goosebumps or butterflies in your stomach?

[TEXT RESPONSE BOX]

C. Relational Savoring

Please think of a recent time that **you had a positive experience together with a loved one (e.g., romantic partner, friend, family member)**.

- This loved one should be someone you are close with and have positive feelings toward.
- This should be an experience for which **you and your loved one were both present**.
- This experience should be one that you both still see in a positive light.

Such an experience may not come to mind quickly, so please take your time and think deeply about this.

Once you have the experience in mind, please begin by answering the two questions about this person on the next page.

As we had mentioned, we would like to hear about **this positive experience you had together with [LOVED ONE’S NAME] that made you feel close.**

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, we ask that you please continue to do so until the time is up.** If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

Based on the amount of time allotted, **a few sentences would be sufficient for a response.**

Once you are ready, please proceed to the next page--thank you again.

First, please write for 2 minutes about the things that **happened in this positive experience you had together with [LOVED ONE’S NAME] as if you were describing a movie scene.** In the next section, we will ask you to tell us about the emotions you felt, but for now, please just tell us what happened as if you were a journalist reporting on the incident, being as objective as possible.

In the box below, please tell us what occurred in as much detail as possible. Please focus on describing the following:

- What was the setting like in this positive experience with [LOVED ONE’S NAME]?
- Besides you and [LOVED ONE’S NAME], who else was there at the time?
- What happened in this positive experience with [LOVED ONE’S NAME]?

[TEXT RESPONSE BOX]

On the next page, we will be asking you to write about the positive emotions **you felt.**

Please take a few seconds to reflect on **the positive emotions you experienced** before proceeding to the next section.

Please write for 4 minutes about the positive emotions **you felt during the peak of this positive experience you had together with [LOVED ONE’S NAME].** In the box below, please describe what you felt in as much detail as possible as if you were trying to get someone else to experience your feelings in the same way. **Please try your best to focus your attention and time on writing about just the positive thoughts and emotions.**

In providing your response, please respond to the following questions:

- What positive emotions did you experience with [LOVED ONE’S NAME]?
- How intensely did you experience these positive emotions with [LOVED ONE’S NAME]?

- How did you feel when you and [LOVED ONE'S NAME] were experiencing these positive emotions?
- What physical sensations did you experience with [LOVED ONE'S NAME] as a result of these positive emotions? For example, did you and [LOVED ONE'S NAME] experience goosebumps or butterflies in your stomach?

[TEXT RESPONSE BOX]

D. Combination Savoring

Please think of a recent time that **you had a positive experience together with a loved one (e.g., romantic partner, friend, family member).**

- This loved one should be someone you are close with and have positive feelings toward.
- This should be an experience for which **you and your loved one were both present.**
- This experience should be one that you both still see in a positive light.

Such an experience may not come to mind quickly, so please take your time and think deeply about this.

Once you have the experience in mind, please begin by answering the two questions about this person on the next page.

As we had mentioned, we would like to hear about **this positive experience you had together with [LOVED ONE'S NAME].**

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, we ask that you please continue to do so until the time is up.** A timer will be shown below to help you keep track of the time. If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

Based on the amount of time allotted, **a few sentences would be sufficient for a response.**

Once you are ready, please proceed to the next page--thank you again.

First, please write for 2 minutes about the things that **happened in this positive experience you had together with [LOVED ONE'S NAME] as if you were describing a movie scene.** In the next section, we will ask you to tell us about the emotions you believe [LOVED ONE'S NAME] felt, but for now, please just tell us what happened as if they were a journalist reporting on the incident, being as objective as possible.

In the box below, please tell us what occurred in as much detail as possible. Please focus on describing the following:

- What was the setting like in this positive experience with [LOVED ONE'S NAME]?
- Besides you and [LOVED ONE'S NAME], who else was there at the time?
- What happened in this positive experience with [LOVED ONE'S NAME]?

[TEXT RESPONSE BOX]

On the next page, we will be asking you to write about the positive emotions **you believe [LOVED ONE'S NAME] felt**.

Please take a few seconds to reflect on **the positive emotions you believe [LOVED ONE'S NAME] experienced** before proceeding to the next section.

Please write for 4 minutes about the positive emotions **you believe [LOVED ONE'S NAME] felt during the peak of this positive experience [LOVED ONE'S NAME] had together with you**. In the box below, please describe what [LOVED ONE'S NAME] felt in as much detail as possible as if you were trying to get someone else to experience their feelings in the same way. **Please try your best to focus your attention and time on writing about just the positive thoughts and emotions.**

In providing your response, please respond to the following questions:

- What positive emotions do you think [LOVED ONE'S NAME] experienced?
- How intensely do you believe [LOVED ONE'S NAME] experienced these positive emotions?
- How did [LOVED ONE'S NAME] feel when they were experiencing these positive emotions?
- What physical sensations do you think [LOVED ONE'S NAME] experienced as a result of these positive emotions? For example, did [LOVED ONE'S NAME] experience goosebumps or butterflies in their stomach?

[TEXT RESPONSE BOX]

E. Personal Savoring

Please think of a recent time that **you had a positive experience**. This experience should be one that you still see in a positive light.

Such an experience may not come to mind quickly, so please take your time and think deeply about this.

Once you have the experience in mind, please proceed to the next page.

As we had mentioned, we would like to hear about **this positive experience**.

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, we ask that you please continue to do so until the time is up.** If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

Based on the amount of time allotted, **a few sentences would be sufficient for a response.**

Once you are ready, please proceed to the next page--thank you again.

First, please write for 2 minutes about the things that **happened in this positive experience as if you were describing a movie scene.** In the next section, we will ask you to tell us about the emotions you felt, but for now, please just tell us what happened as if you were a journalist reporting on the incident, being as objective as possible.

In the box below, please tell us what occurred in as much detail as possible. Please focus on describing the following for the full 2 minutes:

- What was the setting like in this positive experience?
- Besides you, who was there at the time?
- What happened in this positive experience?

[TEXT RESPONSE BOX]

On the next page, we will be asking you to write about the positive emotions **you felt.**

Please take a few seconds to reflect **on the positive emotions you experienced** before proceeding to the next section.

Please write for 4 minutes about the positive emotions **you felt during the peak of this positive experience.** In the box below, please describe what you felt in as much detail as possible as if you were trying to get someone else to experience your feelings in the same way. **Please try your best to focus your attention and time on writing about just the positive thoughts and emotions.**

In providing your response, please respond to the following questions:

- What positive emotions did you experience?
- How intensely did you experience these positive emotions?
- How did you feel when you were experiencing these positive emotions?
- What physical sensations did you experience as a result of these positive emotions? For example, did you experience goosebumps or butterflies in your stomach?

[TEXT RESPONSE BOX]

F. Neutral Control

Please think about **what you did today and yesterday**.

You may need a minute to reflect back on what you did, so please go ahead and do so.

Once you have what you did in mind, please click proceed to the next page.

We would like to hear about **what you did today first**.

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, we ask that you please continue to do so until the time is up.** A timer will be shown below to help you keep track of the time. If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

Based on the amount of time allotted, **a few sentences would be sufficient for a response.**

Once you are ready, please proceed to the next page--thank you again.

First, please write for 2 minutes about **what you did today**. In the next section, we will ask you to tell us what you did yesterday, but for now, please just tell us about what you have done today as if you were a journalist reporting on the incident, being as objective as possible.

In the box below, we would like you to please list what you did today. For each activity, please focus on describing the following:

- What was the approximate time you started the activity?
- What did the activity entail?
- How much time did you spend on the activity?

[TEXT RESPONSE BOX]

On the next page, we will be asking you to write about **what you did yesterday**.

Please take a few seconds to reflect on **what you did yesterday** before proceeding to the next section.

Please write for 4 minutes about **what you did yesterday**.

In the box below, we would like you to please list what you did yesterday. For each activity, please focus on describing the following:

- What was the approximate time you started the activity?
- What did the activity entail?
- How much time did you spend on the activity?

[TEXT RESPONSE BOX]

APPENDIX B

Study 1 Examples of Participant Responses

A. Vicarious Savoring

Part I

Sarah was at our son's daycare around 4:30 PM about two weeks ago to pick him up. Normally she does not pick him up from daycare, but today she was off early and decided to go. Besides Sarah and our son, there were several other children and daycare staff there at the time. Sarah told me that our son was visibly very excited that she had come to pick him up, and ran towards her saying "mama mama!" with a big smile.

Part II

I think Sarah was extremely happy about our son's positive reaction to seeing her at daycare. Judging from how she told me the story, I think the intensity level of her happiness was high. Sarah probably felt close to our son, loved by him, and in love with him too, and overall happy to see him and glad that he was excited to see her. I am not sure what physical sensations Sarah experienced as a result of these emotions. I would imagine she felt warm in her chest and/or stomach and possibly had a heightened heart rate.

B. Self-Distanced Savoring

Part I

I noticed that my friend had a great experience hiking the John Muir Trail. He was gone in the woods for 3 weeks and enjoyed the vigorous physical exercise, the pristine views and every detail of the hiking and camping experience from making fires to pitching tents and cooking outdoors. He did this solo, a challenge mental as well as physical. He also encountered interesting wildlife from deer and marmots to bears, squirrels and jays in great profusion. He also met interesting people from around the world who likewise attempted this 234 mile hike in the grand Sierra Nevada of California. One can really get to know themselves in such beautiful terrain and interesting situations that arise in the deep woods.

Part II

I noticed that he felt very uplifted during his experience hiking. It was such a deep memory as to leave a lifelong impact on him. He will look back on it with great joy and nostalgia over the years, as opposed to the myriad minor experiences everyone has in their everyday, busybody city lives. The reasons for this are that the effects were physical, psychological and spiritual. There was a lot to see, from simply the surroundings, to the wildlife to other hikers. There was also the feeling of being one with everything that comes with being in the woods. In addition to this pure joy, he experienced curiosity, about other environments and life, as well as serenity and peace and the inner satisfaction of accomplishing something challenging like this.

C. Relational Savoring

Part I

David and I went to go for a walk in one of our local community parks. It was a nice day, the sun was shining it was warm. There were a few other people mainly runners or walkers on the trail at the park. As we walked, David and I talked about our lives and what we wanted in life as well as our past experiences in life. I learned a lot about David that day and I felt that the walk made us closer.

Part II

I felt happy with David on that day as he took his time to talk and walk with me. I felt myself smiling a lot. I laughed at a lot of the things he said, it felt very joyous for me to have a conversation with him and I felt calm because we also have a lot in common. I felt a genuine connection with David during that time and it was a very strong connection. The walk and talk we had that day made our friendship to be a lot stronger. I was so glad that we were able to spend time together that day, it meant so much to me and I still smile about it.

D. Combination Savoring

Part I

My mom came to visit me in college and took me out to lunch at Panera bread. It made feel really happy to see my mom and I had a really good time with her. I miss my parents a lot and it helps a lot to see them sometimes. No one else was there besides other employees and customers. Me and my mom talked about how school was going and stuff that was bothering me etc. I miss my family a lot.

Part II

I believe that my mom felt happy to see me, felt love for me, and hopefully felt proud of everything that I've been achieving. I believe that these emotions were fairly strong and genuine, as my mom hopefully does love me quite a bit. Hopefully my mom felt good about these emotions and had butterflies in her stomach.

E. Personal Savoring

Part I

The most positive experience I can recall is when I graduated from college in May last year. My mom and dad flew in from Mexico and it was good to see them after so many years apart. I thought I would never graduate, and it took me 7 years to finish, but I felt a great deal of accomplishment and relief when it was finally over. My mom cried and my father said he was proud of me. I gave my graduation cap to my mom and she framed it back home in Mexico.

Part II

I felt proud of myself for finishing college and not dropping out (even though I wanted to several times). When they called my name (almost last because of seating order) I felt so happy and jittery/ nervous I thought I would throw up. Luckily, though, I held it together. After receiving my diploma, I began to cry from joy and relief / accomplishment as I made my way back to my seat. It was like seven years of tension was finally released and I kept crying even after the ceremony was over, and as I made my way to my family through the crowd. When I saw my family I stopped crying, and started laughing at how silly I must have looked.

F. Neutral Control

Part I

Today, I took my kids to school. This took approximately 10 minutes, as we are nearby the school. Then, I walked them from the car to the field just before their classroom. I waved goodbye and then walked back to my car. This activity took about 15 minutes altogether. After that, I drove home and made some breakfast. I made a bowl of cereal and watched a little bit of TV before packing up and going to work. This took probably 20 minutes. Then I drove to work. I have been at work for about 4 hours now.

Part II

Yesterday, I took my kids to school which took about 15 minutes. Approximate time was 7:45 when I left. Then I drove home and made some breakfast, which took about 20 minutes. I drove to work 15 minutes away, and worked for more than 8 hours. I am a Project Manager where I produce elearning courses. Most of my activities include management, writing, designing and producing. There is no time to each activity, but it took about 8 hours and 30 minutes. I did take a lunch, but I ate it at my desk. After work, I drove 15 minutes home at which point it was about 6pm. I started making a vegetarian pasta dish which took about 30 minutes to make and I ate dinner at 6:30pm.

APPENDIX C

Study 1 Measures

Beck Depression Inventory-II

Sadness

- 0 I do not feel sad.
- 1 I feel sad much of the time.
- 2 I am sad all the time.
- 3 I am so sad or unhappy that I can't stand it.

Pessimism

- 0 I am not discouraged about my future.
- 1 I feel more discouraged about my future than I used to be.
- 2 I do not expect things to work out for me.
- 3 I feel my future is hopeless and will only get worse.

Past Failure

- 0 I do not feel like a failure.
- 1 I have failed more than I should have.
- 2 As I look back, I see a lot of failures.
- 3 I feel I am a total failure as a person.

Loss of Pleasure

- 0 I get as much pleasure as I ever did from the things I enjoy.
- 1 I don't enjoy things as much as I used to.
- 2 I get very little pleasure from the things I used to enjoy.
- 3 I can't get any pleasure from the things I used to enjoy.

Guilty Feelings

- 0 I don't feel particularly guilty.
- 1 I feel guilty over many things I have done or should have done.
- 2 I feel quite guilty most of the time.
- 3 I feel guilty all of the time.

Punishment Feelings

- 0 I don't feel I am being punished.
- 1 I feel I may be punished.
- 2 I expect to be punished.
- 3 I feel I am being punished.

Self-Dislike

- 0 I don't feel disappointed in myself.
- 1 I am disappointed in myself.
- 2 I am disgusted with myself.
- 3 I hate myself.

Self-Criticalness

- 0 I don't criticize or blame myself more than usual.
- 1 I am more critical of myself than I used to be.
- 2 I criticize myself for all of my faults.
- 3 I blame myself for everything bad that happens.

Suicidal Thoughts or Wishes

- 0 I don't have any thoughts of killing myself.
- 1 I have thoughts of killing myself, but I would not carry them out.
- 2 I would like to kill myself.
- 3 I would kill myself if I had the chance.

Crying

- 0 I don't cry any more than I used to.
- 1 I cry more than I used to.
- 2 I cry over every little thing.
- 3 I feel like crying, but I can't.

Agitation

- 0 I am no more restless or wound up than usual.
- 1 I feel more restless or wound up than usual.
- 2 I am so restless or agitated that it's hard to stay still.
- 3 I am so restless or agitated that I have to keep moving or doing.

Loss of Interest

- 0 I have not lost interest in other people or activities.
- 1 I am less interested in other people or things than before.
- 2 I have lost most of my interest in other people or things.
- 3 It's hard to get interested in anything.

Indecisiveness

- 0 I make decisions about as well as ever.
- 1 I find it more difficult to make decisions than usual.
- 2 I have much greater difficulty in making decisions than I used to.
- 3 I have trouble making any decision.

Worthlessness

- 0 I do not feel I am worthless.
- 1 I don't consider myself as worthwhile and useful as I used to be.
- 2 I feel more worthless as compared to other people.
- 3 I feel utterly worthless.

Loss of Energy

- 0 I have as much energy as ever.
- 1 I have less energy than I used to have.
- 2 I don't have enough energy to do very much.

- 3 I don't have enough energy to do anything.

Changes in Sleeping Pattern

- 0 I have not experienced any change in my sleeping pattern.
- 1 I sleep somewhat more than usual.
- 1 I sleep somewhat less than usual.
- 2 I sleep a lot more than usual.
- 2 I sleep a lot less than usual.
- 3 I sleep most of the day.
- 3 I wake up 1-2 hours early and can't get back to sleep.

Irritability

- 0 I am no more irritable than usual.
- 1 I am more irritable than usual.
- 2 I am much more irritable than usual.
- 3 I am irritable all the time.

Changes in Appetite

- 0 I have not experienced any change in my appetite.
- 1 My appetite is somewhat less than usual.
- 1 My appetite is somewhat greater than usual.
- 2 My appetite is much less than before.
- 2 My appetite is much greater than usual.
- 3 I have no appetite at all.
- 3 I crave food all the time.

Concentration Difficulty

- 0 I can concentrate as well as ever.
- 1 I can't concentrate as well as usual.
- 2 It's hard to keep my mind on anything for very long.
- 3 I find I can't concentrate on anything.

Tiredness or Fatigue

- 0 I am no more tired or fatigued than usual.
- 1 I get more tired or fatigued more easily than usual.
- 2 I am too tired or fatigued to do a lot of the things I used to do.
- 3 I am too tired or fatigued to do most of the things I used to do.

Loss of Interest in Sex

- 0 I have not noticed any recent change in my interest in sex.
- 1 I am less interested in sex than I used to be.
- 2 I am much less interested in sex now.
- 3 I have lost interest in sex completely.

Perception of Current Symptomatology

Do you believe you are experiencing depression currently?

In regards to your current feelings, have you **talked to anyone (e.g., a loved one or a professional)**?

Specifically, have you talked to any **loved ones (e.g., family, romantic partner, or friend)** about how you are feeling?

Specifically, have you sought **professional help (e.g., primary care physician, psychologist, or psychiatrist)** for how you have been feeling?

Unidimensional Closeness Scale

My relationship with my _____ is close.

When we are apart, I miss my _____ a great deal.

My _____ and I disclose important personal things to each other.

My _____ and I have a strong connection.

My _____ and I want to spend time together.

I am unsure of my relationship with my _____.

My _____ is a priority in my life.

My _____ and I do a lot of things together.

When I have free time, I choose to spend it alone with my _____.

I think about my _____ a lot.

My relationship with my _____ is important in my life.

I consider my _____ when making important decisions.

Help-Seeking Intentions

If you were experiencing depression, how unlikely or likely is it that you would seek help from a **mental health professional**?

If you were experiencing depression, how unlikely or likely is it that you would seek help from a **parent**?

If you were experiencing depression, how unlikely or likely is it that you would seek help from **family (excluding parents)**?

If you were experiencing depression, how unlikely or likely is it that you would seek help from a **primary care physician**?

If you were experiencing depression, how unlikely or likely is it that you would seek help from a **friend (non-family)**?

If you were experiencing depression, how unlikely or likely is it that you would seek help from a **romantic partner**?

If you were experiencing depression, how unlikely or likely is it that you would seek help from a **website of a national organization (e.g., National Alliance on Mental Illness)**?

If you were experiencing depression, how unlikely or likely is it that you would seek help from **at least one person**? (No N/A option for this item)

APPENDIX D

Study 2 Videos

A. Savoring Public Service Announcement

<https://youtu.be/KZ8KJ1ZONxE>

Many people don't realize that dedicating a small moment of your day to your mental health can make a difference! With that in mind, we bring you your Mental Health Moment brought to you by the Health Psychology and Prevention Science Institute at Claremont Graduate University.

For this Mental Health Moment, we'd like to introduce you to *savoring*: "the process of attending to, appreciating, and prolonging enjoyment from positive experiences." There are many things people can do to practice savoring. For example, one can close their eyes or slow down their thinking to be more present in the moment, celebrate a positive experience with another, and reflect back on positive experiences.

Now, we'd like to take you through a savoring exercise you can do anywhere. This exercise is based on Dr. Fred Bryant's research on savoring and how reflecting on the good could help rewire our brain over time for greater well-being.

We will begin this exercise in just a moment, but first, please try to minimize any distractions you may have around you. If your television or phone are on, please consider turning them off or muting them. If you have other windows open, this may be a great time to minimize or close them. Please try and allow yourself to be distraction free for this brief moment in your day. You may pause this video now to prepare your space.

To begin this exercise, we would like you to take a moment to try to relax and clear your mind. Notice the rate of your breathing, and try to slow it down. In through the nose and out through the mouth. If you wish, you can try closing your eyes to help you relax.

First, we'd like you to think about recent time you had a positive experience with someone you enjoy spending time with—it could be a family member, a partner, a friend. It does not matter if this was a big event or a simple conversation—the key is that this was an experience with someone you care about that makes you happy when you think about it. Please take a moment to think of this positive experience you had together.

Next, try to think of as many details of the event as possible to help recreate the setting in your mind. Think about the place where this happened. Can you see where it occurred? What was the weather like? Was it just the two of you, or were other people there? Can you recall what you were both wearing? Try to think of how you helped make this a positive experience for the two of you. Take a moment to try to visualize how you both were on that day.

Next, replay this positive experience you shared together like it was a scene in a movie. While doing this, try to think of how good you felt during the peak of this positive experience. What positive emotions did you feel? Excitement? Happiness? Enthusiasm? Do you remember smiling or experiencing a feeling of warmth? Allow yourself to reexperience these emotions and sensations again. Try to feel them as intensely as you did then. Let this memory fill your body with these positive sensations and emotions by visualizing it sinking in. Take 30 seconds to close your eyes, allowing yourself to really savor this memory.

Whenever you're ready, slowly open your eyes. As you return to the room around you, remember you can do this anytime of the day, even in the moment that something good is happening. Savor it for 30 seconds and let it sink in!

Thank you for being a part of this Mental Health Moment. As always, if you feel like you could use some help with your overall mental health and well-being or feel like you could be experiencing depression, know there is hope. Resources in the form of education, information about seeking professional help, and information about how to join a free support program are available. On the next page, you will have an opportunity to access these resources if you would like.

B. Comparison Public Service Announcement

<https://youtu.be/5NimIFRCI4s>

Many people don't realize that dedicating a small moment of your day to your mental health can make a difference! With that in mind, we bring you your Mental Health Moment brought to you by the Health Psychology and Prevention Science Institute at Claremont Graduate University.

For this Mental Health Moment, we'd like to talk to you about decluttering. Clutter is anything you're keeping around your house that doesn't add value to your life. Decluttering is about making room in your home for the things that matter.

Regardless of how much stuff we have, we can all benefit from decluttering our lives and homes.

According to Psychology Today and Web MD, people tend to feel like life is out of control when they surround themselves with more things than they can manage. Clutter can be an energy zapper, as people can spend large amounts of time looking for things they cannot find.

As such, decluttering can relieve stress by providing a sense of control and accomplishment, and with less clutter, there is more room for you and the ones you care about.

Today, we'd like to introduce the KonMari Method on how to declutter any space in your home. The KonMari Method is Marie Kondo's minimalism-inspired approach to tackling your stuff category-by-category rather than room-by-room.

To get started with using the KonMari Method, there are five basic core principles to follow:

1. Commit yourself to tidying up all at once. The KonMari method recommends tidying everything at once instead of in small steps. This is one of the core principles, as you will be more likely to achieve a dramatic change in your mindset if you approach decluttering in this way.
2. Imagine your ideal lifestyle. The KonMari Method recommends you envision your ideal home and lifestyle. If you have a clear vision and a goal in mind, you'll be more likely to succeed and stay motivated en route to achieving a change in your mindset.
3. Tidy by category, not location. The next recommendation is to select one category to tidy up at a time, beginning first with clothing, followed by books, paper, komono (miscellaneous), and lastly, mementos (sentimental items). You progress from the easiest category to the more difficult categories. Doing it this way helps you to not get stuck right at the beginning. Tidying by category, Kondo emphasizes, prevents the confusion that arises when you try to declutter objects stored in multiple locations.
4. Finish discarding first. The KonMari method has two parts: discarding and organizing. Once you've tossed items in every category, you should have a much smaller set of remaining items that you can return to various closets, drawers, shelves, and boxes. It is also recommended that you store similar types of items in the same place.
5. Ask yourself if it sparks joy. When you're ready to declutter, the very first step is to gather every item you own in that category and place it in one spot on the floor. Once you have a big pile, you're to go item-by-item and consider if it sparks joy. If it doesn't, you discard the item. Because you're actively choosing items that spark joy, and discarding those that don't, the intention of the KonMari method is to end up with a clutter-free home that is better able to bring more joy and prosperity to your life.

Once it's time to put everything away, Kondo recommends folding clothes in a particular fashion. Folding T-shirts the KonMari way makes it easier to see what you own and not lose items in your drawer. You know you have folded an item correctly if it can stand on its own without falling over.

As we come to the end of this introduction to the KonMari Method, remember that this method is not about keeping only the items that are absolutely necessary, or even about limiting your possessions to a specific number, but it's about keeping the items that spark joy and that fit into the ideal life that you envision for yourself.

Thank you for being a part of this Mental Health Moment. As always, if you feel like you could use some help with your overall mental health and well-being or feel like you could be experiencing depression, know there is hope. Resources in the form of education, information about seeking professional help, and information about how to join a free support program are available. On the next page, you will have an opportunity to access these resources if you would like.

C. Basic Control

<https://youtu.be/QiDF9FMJyEw>

In the next few moments, we will be asking you some questions about depression and seeking help for depression. But before we begin, if you feel like you could use some help with your overall mental health and well-being, know there is hope. Resources in the form of education, information about seeking professional help, and information about how to join a free support program are available. On the next page, you will have an opportunity to access these resources if you would like. Please click the arrow below to proceed to the next page.

APPENDIX E

Study 2 Measures

Help-Seeking Attitudes

If I were experiencing depression, seeking help would be:

negative	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	positive
harmful	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	helpful
bad	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	good
worthless	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	valuable
foolish	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	wise

Help-Seeking Behavior

As we had mentioned in the video, if you would like some information about some of the help-seeking resources that are available, please select 'yes' below. We will then proceed to the survey questions.

If you click 'yes', you will be provided with more information and hyper-links to several resources for connecting with mental health professionals. You may copy this information for your own reference and then complete the rest of the survey. **If you would like to save these resources for later reference, COPY & PASTE the text on the next page onto another document.**

Clicking 'no' will take you to the next portion of the survey.

Would you like to some information about the help-seeking resources that are available?

- Yes, I would like some information about the help-seeking resources available.
- No, I want to continue to the rest of the survey.

Resources provided if they select ‘yes’



Help-Seeking Resources

Many people go through periods of time when they feel distressed or hopeless. This could be when they are going through difficult transitions or while processing complex feelings. It’s common to feel like there is nowhere to turn. However, **individuals experiencing depression are not alone. There are many places where people experiencing those feelings can turn to feel better.** Individuals who would like to reach out to professionals can use any of the resources below.

How to find a mental health professional or treatment center:

The Substance Abuse and Mental Health Services Administration created the [Behavioral Health Treatment Services Locator](#), as a confidential and anonymous source of information for anyone seeking treatment facilities in the United States or U.S. Territories for substance abuse/addiction and/or mental health problems.

If you have health insurance, you can also start by calling your insurer's information number. This number is usually found on the back of your insurance card. You can ask for the phone numbers of mental health professionals (i.e., psychiatrists, psychologists, and counselors) in your area who accept your insurance plan.

How to find a support group:

The **National Alliance on Mental Illness** (NAMI) is a mental health organization dedicated to building better lives for the millions of Americans affected by mental illness. You can find local support groups by visiting www.nami.org/Find-Support. They also offer additional information on how to find a mental health professional.

The **Depression and Bipolar Support Alliance** (DBSA) is an organization created for and led by individuals with mood disorders. The DBSA website provides information on local support groups, treatment resources, and free peer support services. You can visit www.dbsalliance.org to learn more.

The **Your Life, Your Voice** organization also offers ways for someone to call, text, chat, and email a counselor for free. This can be found on <http://www.yourlifeyourvoice.org/>.

Help for suicidal thoughts:

If you or someone you know is experiencing distress and suicidal thoughts, the **National Suicide**

Prevention Lifeline can be contacted at any time by calling the 24/7 toll-free number 1-800-273-TALK (8255) or by visiting www.suicidepreventionlifeline.org to connect instantly with a Lifeline Chat counselor 24/7. For individuals who feel more comfortable texting, crisis counselors at the **Crisis Text Line** can be reached 24/7 in the United States by texting HOME to 741741 (standard messaging rates may apply) or by visiting their website www.crisistextline.org.

If you would like to save these resources for later reference, COPY & PASTE the text on the next page onto another document.

Click >> to continue to the rest of the survey.

Relatedness Scale

1. I feel a sense of contact with people who care for me, and whom I care for.
2. I am lonely.
3. I feel close and connected with other people who are important to me.
4. I feel unappreciated by one or more important people.
5. I feel a strong sense of intimacy with the people I spent time with.
6. I have disagreements or conflicts with people I usually get along with.

APPENDIX F

Prior Savoring Manipulations

A. Straszewski and Siegel (2018)

Savoring

For the next 6 minutes, we would like you to think about, and then write about, a recent positive event that occurred in the last week. The first writing task is two minutes, the second is four minutes.

First, please take **2 minutes** to think about a positive event that happened to you in the last week. In the box below, please describe this positive event. Simply, in as much detail as possible, please tell us what occurred. What happened? Who was there? Please tell us about specific details such as the sights you saw and the feeling of the overall setting. Also, tell us about your role in making the event happen. How did you contribute to this positive event? Describe the role, no matter how small, that you had in making this event happen. Next, we will ask you to tell us how the event made you feel, but for now, please just tell us what happened.

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. Once you begin writing, please continue to do so until the time is up. A timer is shown below to help you keep track of the time.

[TEXT RESPONSE BOX]

Next, please take **4 minutes** to tell us about the emotions you felt when the event occurred last week.

Please write about the event with as much emotion and feeling as possible. In your writing, we would like you to really let go and explore your very deepest emotions and thoughts. First, please replay the positive event in your mind. Next, please recall and re-experience the feelings associated with the event. What did you feel? How long did you feel? How strong were the emotions?

Again, do not worry about spelling, sentence structure, or grammar. As mentioned previously, once you begin writing, please continue to do so until the time is up.

[TEXT RESPONSE BOX]

Control

For the next 6 minutes, we would like you to think about, and then write about, what you did in the last two days. The first writing task is two minutes, the second is four minutes.

First, please take **2 minutes** to think about and write about what you did yesterday. In the box

below, we would like you to please describe what you did, being as objective as possible. Next, we will ask you to tell us what you did today, but for now, please just tell us what happened yesterday.

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. Once you begin writing, please continue to do so until the time is up. A timer is shown below to help you keep track of the time.

[TEXT RESPONSE BOX]

Next, please take **4 minutes** to tell us about what you did **today**.

As in the first writing task, please write as objectively as possible until the timer is up. Again, do not worry about spelling, sentence structure, or grammar. As mentioned previously, once you begin writing, please continue to do so until the time is up.

[TEXT RESPONSE BOX]

B. Straszewski and Siegel (2019)

High-Arousal Positive Emotion

For the next 6 minutes, we would like you to think about, and then write about, a positive memory, specifically, a time you **felt very excited as a result of something you did** (e.g., **learning that you were victorious as a result of your efforts, taking an exciting journey, or finding out something extraordinary was about to happen to you because of something you did**). This might be something like finding out you got into college or winning a prize. The only thing we ask is that this memory is one you still see in a positive light. **This is two-part writing task**. The first writing section is 2 minutes and will ask you to recall details. The second is 4 minutes and will ask you to recall your emotions regarding this **same event**.

Once you have thought about the memory you would like to write about, click >> to proceed to the first part of the writing task. **Please make sure you have thought about the memory you would like to write about before proceeding.**

First, please take **2 minutes** to picture the things that happened as if you were watching a movie. In the next section, we will ask you to tell us about the emotions you felt, but **for now, please just tell us what happened in this excited memory** as if you were a journalist.

In the box below, please **tell us what occurred in as much detail as possible**. Please focus on describing the following:

- **Who was there?**
- **What did you see? What was the setting like?**
- **What was your role in making this happen?**

- **How did your actions contribute to this positive memory?**

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, please continue to do so until the time is up.** A timer is shown below to help you keep track of the time. **If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.**

[TEXT RESPONSE BOX]

Next, please take **4 minutes** to tell us about the **emotions you felt during this time you felt very excited as a result of something you did.** Please remember that the only thing we ask is that this memory is one you still see in a positive light.

First, please replay what happened in your mind. Immerse yourself in the details and good feelings of this memory as much as possible.

- **What was the most exciting part?**
- **Think about the exciting feelings that come to mind when you think back to the most exciting part.**
- **Describe the sense of excitement you felt at the peak of this excited memory as if you were trying to have another person experience how you felt.**
- **Try to re-experience your feelings of excitement as you write about them.**

Again, do not worry about spelling, sentence structure, or grammar. Once you begin writing, please continue to do so until the time is up. If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

[TEXT RESPONSE BOX]

Low-Arousal Positive Emotion

For the next 6 minutes, we would like you to think about, and then write about, a positive memory, specifically, a time you **felt very calm as a result of something you did** (e.g., **a time you met a deadline that had you worried so you were no longer feeling nervous about it, a decision you made that put you at ease, or something you avoided that could have been problematic**). This could be something like deciding to take a walk at the end of a long workday or the calmness you felt after handing in an assignment. The only thing we ask is that this memory is one you still see in a positive light. **This is two-part writing task.** The first writing section is 2 minutes and will ask you to recall details. The second is 4 minutes and will ask you to recall your emotions regarding this **same event**.

Once you have thought about the memory you would like to write about, click >> to proceed to the first part of the writing task. **Please make sure you have thought about the memory you would like to write about before proceeding.**

First, please take **2 minutes** to picture the things that happened as if you were watching a movie. In the next section, we will ask you to tell us about the emotions you felt, but **for now, please just tell us what happened in this calm memory as if you were a journalist.**

In the box below, please **tell us what occurred in as much detail as possible.** Please focus on describing the following:

- **Who was there?**
- **What did you see? What was the setting like?**
- **What was your role in making this happen?**
- **How did your actions contribute to this positive memory?**

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, please continue to do so until the time is up.** A timer is shown below to help you keep track of the time. **If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.**

[TEXT RESPONSE BOX]

Next, please take **4 minutes** to tell us about the **emotions you felt during this time you felt very calm as a result of something you did.** Please remember that the only thing we ask is that this memory is one you still see in a positive light.

First, please replay what happened in your mind. Immerse yourself in the details and good feelings of this memory as much as possible.

- **What was the most relaxing part?**
- **Think about the calming feelings that come to mind when you think back to the most relaxing part.**
- **Describe the sense of calm you felt at the peak of this calm memory as if you were trying to have another person experience how you felt.**
- **Try to re-experience your feelings of calmness as you write about them.**

Again, do not worry about spelling, sentence structure, or grammar. Once you begin writing, please continue to do so until the time is up. If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

[TEXT RESPONSE BOX]

Control

For the next 6 minutes, we would like you to think about, and then write about, **what you did in the last two days.** This is a two-part writing task. The first writing section is 2 minutes, the second is 4 minutes.

Once you have thought about what you will be writing about, click >> to proceed to the first part of the writing task. **Please make sure you have thought about what you did today and yesterday before proceeding.**

First, please take **2 minutes** to think about and write about **what you have done today**. Next, we will ask you to tell us what you did yesterday, but **for now, please just tell us about what you have done today as if you were a journalist** being as **objective** as possible.

In the box below, we would like you to **please list what you have done today**. For each activity, please focus on describing the following:

- **What did the activity entail?**
- **What was the approximate time you started the activity?**
- **Who was there with you (if anyone)?**
- **How much time did you spend on the activity?**

All of your writing will be completely confidential. Do not worry about spelling, sentence structure, or grammar. **Once you begin writing, please continue to do so until the time is up.** A timer is shown below to help you keep track of the time. **If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.**

[TEXT RESPONSE BOX]

Next, please take **4 minutes** to tell us about **what you did yesterday** as if you were a **journalist** being as **objective** as possible.

In the box below, we would like you to **please list what you did yesterday**. For each activity, please focus on describing the following:

- **What did the activity entail?**
- **What was the approximate time you started the activity?**
- **Who was there with you (if anyone)?**
- **How much time did you spend on the activity?**

Again, do not worry about spelling, sentence structure, or grammar. Once you begin writing, please continue to do so until the time is up. If you would like to finish writing down your thoughts after the timer has finished, feel free to do so.

[TEXT RESPONSE BOX]