Savoring and Bereavement; Exploring Whether Savoring Can Be Used as an Interventional Tool for Grieving Older Adults

Ajla Basic

Loyola University of Chicago Graduate School

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SAVORING AND BEREAVEMENT:
EXPLORING WHETHER SAVORING CAN BE USED AS AN INTERVENTIONAL TOOL FOR GRIEVING OLDER ADULTS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN APPLIED SOCIAL PSYCHOLOGY

BY
AJLA BASIC
CHICAGO, IL
MAY 2024
ACKNOWLEDGEMENTS

I would like to thank my supervisor, Professor Scott Tindale for bringing the weight of his knowledge to this project, and always offering me brilliant comments and suggestions.

I would also like to thank my committee members who held this study to high standards, which have made me better at what I do.

I would like to thank my resilient parents, Adil and Sabina Basic, who provided me the opportunity to pursue higher education by making the difficult decision to flee their home country, Bosnia, in hopes of a better and safer future for me.

Finally, I wish to acknowledge all the women who, like myself, have risen above cultural pressures and remained firm in the achievement of their goals.
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ABSTRACT

Relational savoring is the idea that savoring can be achieved through focusing on a critical relationship with another person and then extracting the positivity from that relationship (Borelli, et al., 2020). Relational savoring differs from regular savoring because in the former, it is the savoring of memories within a relationship that has attachment, and where the memories themselves have attachment-based content (i.e., protection, support, love) (Borelli, et al., 2020). This proposed study would seek to answer the question of whether relational savoring can act as a protective barrier against psychological distresses a bereaved person may experience by priming and enhancing positive emotions of attachment security to the lost loved one.
CHAPTER ONE
INTRODUCTION TO AGING IN AMERICA

The most common human marker is experiencing grief. In some way, it touches each of us, plummeting us into the grieving process with varying degrees of intensity throughout our lives. While the death of a loved one may be a common experience, there are certain factors, like age, that can exacerbate the pain that comes with grief. Older adults are already susceptible to loneliness and may be rapidly losing loved ones due to the nature of their age thus amplifying negative impacts of grief (Dykstra, 2009).

For older adults, loneliness is a potential gateway to health deterioration, and with 40% of older adults reporting feeling lonely (Hawkley & Cacioppo, 2010), it is no small threat to older adults and their physical and mental health. For example, there is a relation between loneliness and cardiovascular illness (Whisman, 2010), mental illness (Coyle & Dugan, 2012), and reduced physical activity (Hawkley, Thisted & Cacioppo, 2009).

In the last twenty years, research on savoring has become a valuable tenet of positive psychology, often cited for its complementary relationship with coping strategies. Savoring, a unique process of consciously focusing attention on the pleasure of a given experience, has been studied on an interventional level when looking at reducing negative side effects brought on by grief (Bond, 2018). We theorized that it can be tailored for older adults and become a remedy to reduce adverse effects of grief like loneliness but increase positive emotions like gratitude.
General Savoring

Savoring came out of an idea that unhappiness and happiness are not categorical constructs, but continuous on two separate continuums; the opposite of happiness is not unhappiness, and the opposite of unhappiness is not happiness. You can experience those two emotions on a continuum, and savoring exists along the continuum of happiness; it helps amplify feelings of happiness, moving you up further on the continuum. The complimentary partner to savoring is coping; coping strategies act as a means of emotional survival, moving you along the unhappy continuum to the more positive side. While we may have been taught how to cope and survive throughout life, very few of us have been taught how to be happy. So, in practice, savoring is the focused and mindful connection to the experience at hand that can ultimately make us happier (Bryant & Veroff, 2007).

Savoring has four main requirements: a conscious understanding of what is happening, the ability to recognize the process (i.e., the way emotions are being connected), to understand the method one uses to begin the savoring experience, and the self-efficacy to understand positive emotions (Bryant, Chadwick & Kluwe, 2011). Savoring can be applied to experiences that happened in the past, or the future, but it is most common with present experiences. Often it is assumed that to properly savor, one must have an extraordinary experience (i.e., seeing the seven wonders of the world), but Bryant & Veroff (2007) believe that savoring can also be applied to mundane tasks (i.e., walking the dog on a sunny day). A more detailed example of savoring can be taking a swim and slowing down to focus entirely on that one moment---the physical sensation of your body floating in the water, including your senses like taste and smell---taking mental photos of the experience as to never forget it, and ultimately enamoring oneself with the positive feelings experienced.
Savoring distinguishes itself from concepts like mindfulness and meditation. Savoring is a narrower and more targeted concept than mindfulness and although people that meditate tend to feel better after the process, while they are meditating, they are not exerting a specific type of focus of their attention, whereas people who savor are intentionally focusing their attention on the specific experience (Bryant & Veroff, 2007). Savoring should also not be confused with daydreaming, which is usually without a goal, different from savoring which has a deliberate goal to amplify positive feelings (Bryant & Veroff, 2007).

Empirical findings have largely given support to the field of savoring, often finding that regardless of age, gender, ethnicity---if savoring is properly done, there can be psychosocial wellbeing benefits. For example, greater savoring ability has been correlated with positive life satisfaction (Hurley & Kwon, 2012; Livingstone & Srivastava, 2012; Bond, 2018) and better well-being (Bryant, 2003; Smith & Bryant, 2017). Savoring has also recently been implemented in interventions; Smith & Bryant (2019) implemented a savoring intervention with older adults to see if a group who is savoring, through guidance by a trained researcher, can have more positive benefits compared to the control group. It was found that participants who savored had greater positive perceptions of aging and life satisfaction. This specific intervention was done multiple times with older adults, and in these savoring interventions, there was an increase in levels of happiness and life satisfaction and a decrease in levels of depression (Bryant, 2003; Smith & Bryant, 2017).

In recent research, specific savoring experiences have been looked at, like relational savoring, which is when one individual focuses on the emotional closeness they feel toward another individual (Borelli, Sbara, Snavely, McMakin, Coffey, Ruiz, & Chung, 2014b). Certainly, studies have looked at relational savoring within the context of different relationships-
--romantic, military spousal relationships, parent-child relationships--- but very few have looked at romantic relationships amongst older adults where one of the individuals in that relationship has passed (i.e., bereavement). As bereavement research has begun to align with savoring research, there has been more exploration of just how impactful savoring, specifically relational savoring, can be in the lives of older adults.

**Relational Savoring**

As has been alluded to, savoring can be diverse in its experience; savoring can be focused on current moments, something for oneself, or something within a relationship related to someone else. Relational savoring is the idea that savoring can be achieved through focusing on the care that is provided or received from another individual through a relationship (either platonic or romantic; Bond, 2018). Relational savoring has shed light on the idea that savoring does not have to be done within a person, but that it can be done when focusing on a critical relationship with another person and then extracting the positivity from that relationship (Bond, 2018). Relational savoring tends to cater to the memories within a relationship that has attachment, and where the memories themselves have attachment-based content (i.e., protection, support, love) (Bowlby, 1973; Borelli, Bond, Fox & Horn-Mallers, 2020).

The origin of relational savoring can be traced back to attachment theory. Relational savoring was originally designed to focus one’s attention on specific moments when an individual thinks they are serving as an attachment figure for others, or if someone else is filling that role for the individual. The relationship provides a “safe haven” in stressful or ambiguous situations. All of this is operating from the classic attachment theory (Bowlby, 1980; Ainsworth & Bell, 1970), which uses psychology, evolution, and ethnology to understand the relationships between humans. In the theory, Bowlby (1980) defines attachment as a lasting connectedness
between humans, or in other words, an emotional bond with another person. The key operator in the theory was that this attachment was a learned behavior between humans that starts from infancy. In terms of the origin of this learned behavior, attachment between humans goes back much further; evolutionarily, attachment would have kept a child close to its mother, which would surely improve its chances of survival (Bowlby, 1980). However, attachment is not something that needs to occur in young age to provide beneficial effects to the individual later in life, studies have shown that even small exposures to secure attachment later in life can positively influence people (Borelli et al., 2020; Mikulincer & Shaver, 2008).

There are three specific points from attachment theory that relate to relational savoring; (1) a secure attachment happens when another individual fulfills that ‘safe haven’ role for us and when we ourselves fulfill that role of a ‘safe haven’ for someone else, (2) secure base memories, times when we can recall being supported by someone, and (3) feelings of security, safety, love, appreciation, and joy, as well as cognitions like ‘I am important’ or ‘I am enough’ (Borelli, et al., 2020). We can see how that would relate to relational savoring because of its design for individuals to savor on experiences of attachment-based relations (i.e., savor on a moment when a friend had been a safe haven for them).

Besides attachment theory, the model of positive emotions is key in the framework of relational savoring. This model asserts that positive emotions not only signal enjoyment but can also lead to optimal functioning for the long term (Borelli et al., 2020; Fredrickson, 1998). This model posits that while negative emotions can be useful because they may allow a person to build defense mechanisms for protection in the future, positive emotions can help broaden a person’s thoughts, and cultivate personal resources for the future, like resilience (Borelli et al., 2020; Fredrickson, 1998). There is evidence that positive emotions can even undo any negative
psychological effects of negative emotions (Borelli et al., 2020; Fredrickson, 1998). This theory then informs relational savoring because it allows for an upward spiral of positive emotions giving individuals resources to cultivate healthier coping mechanisms (i.e., resilience), on both individual and interpersonal levels. Relational savoring taps into these processes and potentially capitalize on them and potentially magnify their impact over the long term (Borelli et al., 2020; Fredrickson, 1998). It is essentially the driving mechanism of relational savoring.

At its core, relational savoring involves “deeply focusing one’s attention on a moment of shared positive connection, or an experience of felt security, with an attachment figure (i.e., someone to whom one turns for comfort or support, or someone to whom one provides comfort support)” (Borelli et al., 2020). In terms of what exactly someone needs to reflect on, Borrelli et al., (2020) provides these instructions: “reflect on a time when (1) an attachment figure provided loving care to them when it was most needed—or when they provided such care to another, (2) support from an attachment figure enabled them to take a risk they might not otherwise have taken—or when they provided such support to another, or (3) cherishing a moment of special closeness, such as a time spent cocooning with a loved one, noticing the small sensory details, emotions, and cognitions accompanying the moment”. Each of these types of reflections cater to some portion of the theoretical framework that relational savoring is built upon. For example, the (1) is representative of a haven memory, (2) is representative of a secure base memory being recalled (3) is representative of feelings of secureness, safety, love, and connection, and cognitions.

Borelli et al., (2020), the pioneer of relational savoring, intended it to be delivered as a ‘manualized intervention’ following a series of stages. First the intervention is designed to be administered individually, online or in-person, and can vary in time from 15 to 40 minutes.
Generally, the intervention goes from stages of memory selection/generation to memory reflection phase.

In the memory selection phase, the participant would think of three memories of positive connection with whoever the relationship target is in the intervention. From the three memories, one will be selected based on its strength in (1) richness in attachment content (2) positive connection. As Borelli et al., (2020) suggests “the goal of the memory selection phase is for interveners to identify a memory at the top of the client’s personal pyramid in terms of savoring promise”.

The stage of memory reflection brings with it five subsets for a successful memory reflection phase. The overall goal in this step is to help the participant savor a memory that has highlighted details of sensory information, and attachment content. There are a series of five preset prompts that are designed to be open-ended to begin the savoring process for the participant. An example of one prompt could be:

A future-focused prompt: Now I’d like you to turn your focus to the future. Focus on how close you felt to [target’s name] at that time. How will the bond that you have together affect your relationship in the future? What positive things can you imagine happening because of your bond to one another? (Borrelli et al., 2020).

After the participant has been stimulated in thinking in such an open-ended way, the first sub-step would entail the client recalling and describing the sensory details of the memories as vividly as possible, moving past just re-imagining the memory, but also re-experiencing it. Sensory details may include time of day, the weather, what they could hear, smell, taste, and even small details like what they were wearing that day.
The next sub step is for the participants to recall the emotions that may have been circulating inside them during the time of that memory. Participants would be encouraged to go beyond just general feeling states (i.e., happy, sad), into more specific and attachment-related states (i.e., feelings of joy or warmth) (Borrelli et al., 2020).

The third sub step of the memory reflection stage is for the participant to discover a meaning from the memory. This is a key step because the participant can take this memory on which they have been savoring and attach real life meaning to it.

In the next step of the memory reflection, the participant would be encouraged to revisit the attachment they felt to the given person in the savored memory and apply it to the future. For example, a question may be “how will the bond that you have together affect your relationship in the future”? (Borelli et al., 2020). This fourth step of the memory reflection phase may not extend itself readily to bereavement research, since the individual they are grieving has passed, and the participant will not have access to a future with them. However, this step can be adapted for a bereaved relationship by redirecting the participant to focus on the future with themselves as the focus point “how will the bond that you have shared affect you in the future?”

The fifth and final step of the memory reflection phase is an open-ended, non-directed prompt to the participant to let their mind wander in any direction. At this point the participant can share anything that comes to their mind. This is theorized to be a good final step because it allows for any deeper “processing of emotional or cognitive material to be generated in reflection sub steps 1-4” (Borelli et al., 2020).

Since it is a newer concept, the empirical support for relational savoring is scarce. In fact, only a few researchers have exclusively looked at the concept of relational savoring as a stand-alone intervention, independent of personal savoring. This highlights yet another reason why
studying relational savoring is a viable pursuit, especially in finding different methods to improve the well-being of older adults. Currently, the few but notable studies that have surfaced from the field of relational savoring, have looked at younger adults, older adults, and relationships that are romantic and platonic in nature.

Prior studies have found that using relational savoring, compared to control conditions, improves emotional states (Borelli et al., 2020). For example, one study looked at 533 romantic relationships, and for those that were in the condition that deployed relational savoring, there was an increase in the positive emotions between the two people in the relationship (Borelli et al., 2020). Relational savoring has also been documented to have positive results in platonic relationships as well. For example, a study between parents and children found that the use of relational savoring online improved emotions states and decreased avoidance, even two years after post-intervention (Burkhart, Borelli, Rasmussen, & Sbarra, 2015; Borelli et al., 2020). There is also empirical evidence that relational savoring is successful amongst older adults. In a study where older adults, aged 60 to 90, completed relation savoring experiences, their heart rates were lower, and their sense of self-agency increased (Borelli et al., 2020).

The gap in understanding relational savoring in detail is evident, both as an interventional tool, and from a psychometric perspective of knowing how to best deliver the method. More research is needed on the effects of relational savoring for older adults. Additionally, we discussed that relational savoring and personal savoring can be delivered in-person and online, yet most of the cited material had in-person relational savoring as the mode of delivery. However, as we have seen during the period of Covid-19, being able to conduct work online can be key to reaching more older adults in rural or isolated areas. That is why this study looked at
relational savoring as an interventional tool for bereaved older adults, via an online mode of
delivery.

**Bereavement**

There are several theories of grief that have emerged that provide different perspectives
for understanding bereavement. Early on, Freudian theory considered grieving as a process in
which one would “let go” of the deceased individual, and break the bond, or any remnants of it,
and “move on” (Waskowic & Chartier, 2003). However, more recent theory has questioned this
abrupt transition. Kessler & Kubler-Ross (2005) divided grief into five stages—denial, anger,
bargaining, depression, and acceptance. Yet even this theory has been criticized for its
potentially crude categorization that could disregard cultural differences in grieving and give a
one-size-fits-all approach (Maciejewski, Zhang, Block, & Prigerson, 2007). Individuals do not
necessarily progress through these stages consecutively but may randomly jump from one stage
to another.

One theory that has contributed to grief literature is attachment theory, and this study
anchors heavily on this theoretical underpinning. The loss of a loved one can result in an
incredibly stressful domino effect, where the individual feels they will never experience a sense
of security or love again (Bowlby, 1980). At this point, the individual may follow through with
the natural grief process, and engage in difficult, but needed, steps to obtain *grief resolution*.
However, an individual may instead opt for simpler secondary strategies to restore calmness
within. This secondary strategy, also known as disordered grief reactions, can include
*hyperactivation, deactivation* or both. (Mikulincer & Shaver, 2008). An individual that is in the
hyperactivation strategy might be engaging in behaviors necessary to gain the unavailable
attachment figure’s love (Mikulincer & Shaver, 2008). We can see how this can be an especially
devastating cycle for someone, since the attachment figure in question has passed, and physically cannot offer care and attention. An individual operating in the hyperactivation strategy would be unable to focus on any other activity except the unavailable attachment figure’s relationship, attempting to find closeness and love. This toxic cycle usually results in the individual being in chronic mourning and depression (Mikulincer & Shaver, 2008). On the other side, an individual might also employ deactivation strategies. In this sense, the individual steers clear of any attention from painful feelings about the loss and ultimately dismisses the importance of the deceased and their relationship. Although this may initially seem like an unproblematic way to tackle grief, there is mental labor required for grief resolution which this deactivation strategy bypasses. Deactivation strategy can result in the individuals’ thoughts and feelings becoming disassociated, subconsciously influencing the individual (Mikulincer & Shaver, 2008). There is a caveat to this type of grief resolution; if an individual genuinely did not have a close relationship with the deceased, then this deactivation strategy does not have to indicate maladaptation. However, if the individual was close to the deceased individual, and uses the deactivation strategy as a defense mechanism, then “repeated activation of inexplicable and partially suppressed negative emotions may eventually have a negative impact on psychological well-being or physical health” (Fraley & Shaver, 1999; Mikulincer & Shaver, 2008). So, grief resolution, instead, is seen as the healthy steps that need to occur in the grieving process for an individual to come out on the other side of the death experience with the least number of negative effects. Grief resolution also often requires the undertaking of two major psychological tasks. The first is acceptance, and the second step is creating some symbolic attachment to the deceased, where one can derive meaning from. Both tasks fall under what Bowlby (1980) called attachment reorganization, which is the “rearrangement of representations of the self and
deceased partner and editing of the hierarchy of attachment figures” (Mikulincer & Shaver, 2008). In other words, the individual needs to rework their self-concept to exclude the deceased individual, and they need to be able to edit their attachment bonds to reflect the loss of the individual. Editing their hierarchy of attachment figures means transferring over the security felt in that relationship with the deceased individual to another relationship (Mikulincer & Shaver, 2008). In this sense, it does not mean that the bond with the deceased needs to be wiped clear and forgotten, but rather that the deceased becomes a symbolic or internal source of security.

Other contemporary models of grief have suggested that what may be key in a healthy grieving process may be maintaining the connection between the individual and the deceased. For example, Silverman & Klass (1996) developed a model of grief, Continuing Bonds Model, and posited that “the bereaved remain involved and connected to the deceased, and that the bereaved actively construct an inner representation of the deceased, that is part of the normal grieving process” (pg.16). This emphasis on maintaining even a symbolic bond with the deceased suggests that the ‘best’ grieving process involves continuation rather than letting go. The continuing bonds model addresses the loss of the individual and the social role and suggests that the key to a healthy grieving process includes placating that lost social role and evolving it. Silverman & Klass (1996) suggest that in terms of social roles, the key may be not rationalizing that social bond as a loss but reframing it “to discovering and developing a new and different type of relationship with the deceased individual”. This feeds back into our prior discussion on what Mikulincer and Shaver (2008) suggested, that there needed to be an editing of the social hierarchy of attachment figures for the bereaved. The other reason why it may be key for the bereaved to retain a symbolic or internal relationship with the deceased is because one major pillar of the continuing bonds model is that the bereaved will always be affected by the grief
experience, and they will never get over it, they will simply *carry on* (vs ‘get over it’). Having the ability to recategorize that social bond from a real-world bond to a symbolic bond sets the realistic expectations that an individual will likely never be the same, but allowing the change to be as positive as it can be. Empirical work suggests that ‘getting over it’ should not be the goal, and it can be more detrimental to us. Instead, theory suggests the adoption of the ‘carry on’ manner, where one accepts the pain with losing that individual, but because that relationship carried on in a transformed manner (i.e., a symbolic relationship), it allowed for the inner representation of the deceased to stay intact and allow for a healthy grieving process (Waskowic & Chartier, 2003).

In a similar vein, more recent theories like the grief work hypothesis describes it as a “cognitive process of confronting a loss, of going over the events before and at the time of death, and of focusing on memories with the deceased” (Stroebe, Schut & Boerner, 2010). In other words, painful work needs to be put in by the bereaved. Although this may sound incredibly difficult, scientific literature suggests that doing so ---following the grief work hypothesis—will help avoid detrimental health consequences. (Stroebe, Schut & Boerner, 2010).

Kumar, Srivastava and Nand (2023) identified three levels of grief discussed in the literature currently, especially after Covid-19: bereavement for self, grief for the loss of a loved one (relational grief), and collective grief. Albuquerque, Teoxeora & Rocha (2021) write about bereavement for self, which could result from the loss of life events, employment, milestones, and financial security due to the direct or indirect effects of the pandemic. However, it can also include actual death; grief for self can also result from an anticipated death because of health conditions (Ishikawa, 2020).
Relational grief here refers to grief for losing a loved one and its subcomponents: complicated grief, ambiguous grief, anticipatory grief, and disenfranchised grief. Although these forms of grief could be present at other levels, they are especially emphasized for bereavement for losing a loved one. Disenfranchised grief is defined in the literature as losses that go unacknowledged by society and community, which was especially relevant during Covid-19 when humans deaths were numbers and statistics. Complicated grief results from multiple stressors and is characterized by excessive rumination, alienation, hopelessness, and intrusive thought for the dead (Wallace, Wladkowski, Gibson, & White, 2020). This could include Covid-19 relevant features such as social distancing, lack of support, and inability to prepare for death, but it can also include difficulty with caregiving from one spouse to another, which can result in very difficult relationship strains between the couple. Walsh (2020) has written about the concept of ambiguous loss; lack of clarity about the diagnosis, symptoms, and severity can impede getting emergency care. Anticipatory grief is a grief response that occurs as someone struggles to come to terms with both the potential loss of a loved one and the changes that result from a loved one’s health decline. This is especially relevant to this work since caregiving strain and Covid-19 deaths are more relevant to the aging population.

Chater’s (2022) grief model, “your world and the ball of grief”, speaks to the theory of collective grief which claims that one may not completely get over grief and its painful effects. However, as one navigates through their world, their experiences expand, and the grief begins to appear smaller and more manageable. As it was especially relevant during the Covid-19 pandemic, the model also claims that a person can experience multiple griefs simultaneously, including losses such as loved ones, employment and livelihood, and self-identity.
As reviewed, there are many grief theories in the field, but there are a few that are especially relevant to this study. For example, attachment theory speaks to the underpinning bond a spouse may have to their partner, and how a loss of the partner and the social role may be especially detrimental (Bowlby, 1980). The Continuing Bonds Model is relevant to the relational savoring component in this study because it addresses the benefits that can occur to an individual if they are able to view the physical bond as a symbolic bond once the loved one has passed away (Silverman & Klass, 1996). Stroebe, Schut and Boerner (2010) on the dual process of grief in the grief work hypothesis, highlighted that positive affect plays an important role in recovery, which is especially relevant for relational savoring in this study because the theorized mechanism in relational savoring that would even allow for any change is the priming and enhancement of positive emotions. The grief work hypothesis also highlights ‘going over events’ and ‘focusing on memories’ (Stroebe, Schut & Boerner, 2010). This is an aspect of relational savoring—that focusing on memories with the attachment figure may result in some relief from the detrimental effects of the experience of losing a spouse.

**Bereavement and Savoring**

Although relational savoring and bereavement have not yet fully been explored, there is early evidence that relational savoring may offer support with bereavement. Bond (2018) used relational savoring narratives and assessed its impacts on bereaved older adults, and it was found that savoring narratives protected the bereaved from lower agency, which is a negative effect of bereavement. Bond (2018) explored whether relational savoring would have any effects for those who have lost a spouse and theorized that “older adults engaged in relational savoring might benefit from focusing their attention on the positive, attachment-related thoughts and feelings associated with a time when they felt cared for or felt like they cared for others—regardless of
previous loss experiences, and regardless of the targets of their relational savoring”. However, Bond (2018) went one step further, and assessed three conditions of savoring to better understand which savoring intervention was most successful; personal savoring in which participants savor any enjoyable memory, relational care-receiving in which participants savor a moment when they were cared for by someone else, and relational care giving in which participants savor a moment when they took care of someone else. The latter two are both relational savoring, but from the perspective of giving and receiving care to understand if relational savorings’ effect may differ in strength due to direction of care.

Bond (2018) found that bereaved adults in the relational care giving condition had the lowest positivity whereas the care receiving condition had the highest, suggesting that bereaved older adults that savored on a time they provided care to the deceased individual were unable to focus inherently on the pleasure present in the chosen scenarios. Follow-up analyses suggest that for the bereaved, caregiving can be an incredibly taxing endeavor, both emotionally and physically (Bond, 2018).

This study done by Bond (2018) has been of immense focus for this study because it was a trailblazer in terms of theoretically applying relational savoring and bereavement. It also was the initial test of relational savoring in not only older adults but those who had lost a spouse. The authors leave plenty of room for this relational savoring intervention to be revised as a method and tailored to an even more specific demographic.

This study continued that work by further investigating the relationship between relational savoring and bereavement, in an attempt to analyze if the experiences older adults undergo when they are engaged in relational savoring can be used as a remedy. In this study, we have narrowed the loss of a loved one to a spouse, due to the likelihood that they spend the most
amount of their time with them, and to avoid muddying the constructs by introducing the loss of a child, which theory suggests can have different intensity levels of grief compared to the loss of a child (Bradley & Cafferty, 2001). We also did not offer a fragmented relational savoring task like Bond (2018) (care receiving vs caregiving) because we wanted to understand if our writing task worked unabridged, at all.

This research is intended to be an insightful study exploring what benefits of savoring, specifically relational savoring, may exist for a bereaved older adult and how that may alleviate any outcomes related to the grief process that could be detrimental to an older adult. Thus, we are hypothesizing that participants who undergo the relational savoring intervention (relational savoring writing task) will experience more positive psychosocial benefits compared to those participants who did not undergo the relational savoring intervention and instead were in the control condition.

*Purpose*

The research question in this study was can relational savoring act as a protective barrier against psychological distresses a bereaved person may experience by priming and enhancing positive emotions of attachment security to the lost loved one?

Relational savoring was specifically used because it is the type of savoring that can be achieved through focusing on a critical relationship with another person and then extracting the positivity from that relationship (Borelli, et al., 2020). Also, relational savoring differs from regular savoring because in the former, it is the savoring of memories within a relationship that has attachment, and where the memories themselves have attachment-based content (i.e., protection, support, love) (Borelli, et al., 2020). It is theorized that a mechanism in relational
savoring that would even allow for any change is the priming and enhancement of positive emotions.

**Mechanism of Change**

As discussed early on, the model of positive emotions is key in the framework of relational savoring. This model asserts that positive emotions not only signal enjoyment but can also lead to optimal functioning for the long term (Borelli et al., 2020; Fredrickson, 1998). This model posits that while negative emotions can be useful because they may allow a person to build defense mechanisms for protection in the future, positive emotions can help broaden a person’s thoughts, and cultivate personal resources for the future, like resilience (Borelli et al., 2020; Fredrickson, 1998). Relational savoring taps into these processes, capitalizing on them and potentially magnifying their impact over the long term. This allows for an upward spiral of positive emotions, giving individuals resources to cultivate healthier coping mechanisms (i.e., resilience), on both individual and interpersonal levels (Borelli et al., 2020; Fredrickson, 1998). It is essentially the driving mechanism of relational savoring.

Indeed, there is evidence that what allows relational savoring to produce change in bereavement situations is its ability to prime and enhance positive emotions. Research seems to support this claim; Stroebe, Schut and Boerner (2010) assert that positive affect may play an important role in grief recovery. Folkman (1997) similarly claimed that positive emotions can be key to the recovery process during grief. Borelli et al., (2020) mirrored that by finding that “enhancing positive emotions may be more effective than targeting negative emotions… relational savoring’s goal is to draw the person’s attention toward these memories, thereby strengthening their security” (pg.18). The change mechanism seems to be increasing positivity, especially within memories shared with the lost loved one.
**Hypotheses**

This study had five hypotheses; *H1*: Participants who engage in relational savoring would report lower levels of loneliness relative to participants in the control condition; *H2*: Participants who engage in relational savoring would report lower levels of grief intensity relative to participants in the control condition; *H3*: Participants who engage in relational savoring would report higher levels of positive affect relative to participants in the control condition; *H4*: Participants who engage in relational savoring would report higher levels of gratitude relative to participants in the control condition; *H5*: Participants who engage in relational savoring would report higher levels of meaning relative to participants in the control condition.

**Power Analysis**

To determine the target sample size for the present experiment, we used the Power Analysis and Sample Size (PASS; Hintze, 1991) software to conduct a prospective power analysis for the proposed analyses testing the five research hypotheses. As an estimate of the size of the difference between experimental and control group means, we used the lower and upper values of $R$-squared = .05 and .10. These values represent a small and moderate effect size of the independent variable, respectively. As an estimate of effect size for the set of five covariates (i.e., time since widowhood, savoring ability, gender, attachment security, and relationship satisfaction), we used the lower and upper values of $R$-squared = .05 and .25. These values represent a small and moderate effect size of the set of covariates, respectively. Finally, we specified the inferential statistical test to be an *F*-Test with a significance level (alpha) of 0.05 and specified 0.80, 0.90, and 0.95 (i.e., 80%, 90%, and 95%) as the desired levels of statistical power. Results of these power analyses revealed that a total sample size of 236 is required, for the multiple regression analyses to achieve 95% power to detect the
hypothesized small (i.e., $R^2 = .05$) difference between the experimental and control group means at $p < .05$ when controlling for the small effect (i.e., $R^2 = .05$) of the set of five covariates. This means that, assuming an estimated 35% dropout rate (general attrition educated guess based on similar work: 35% on Mturk (Bryant, Osowski, & Smith, 2021), a sample size of 364 is required to achieve 95% power. In a more extreme case of a 40% dropout rate, a sample size of 394 is needed for the analyses of group differences to achieve 95% power to detect the hypothesized difference between the experimental and control group means at $p < .05$ when controlling for the effects of the set of five covariates. The sample size of this study ended at an N of 370 participants, with a rejection rate (those that were invited but chose not to complete the study) of 20%, and a dropout rate of 28.38% (N=271 retention).
CHAPTER TWO

METHODS

Design

The present research drew upon an existing national panel called the SurveyMonkey Audience Tool Panel. This panel collects general demographic information to enroll their participants officially, and then allows outside researchers to select specific demographic markers to build up their target audience for any given research. The first stage involved inviting enough participants to match the minimum number derived from the power analysis, which was a sample of 236 at least. The invites, sent through email, were addressed to targeted participants with an invite to this specific study and a brief overview of what the study pertained to.

After deciding to participate in the study, all participants had to undergo completing Survey Monkey’s own demographic questionnaire (i.e., gender, age, household income). It is at this point that they began completing the presented study, please see below on the measures participants had undergone, divided by being in the experimental or control group.

Participants

All participants in this study were recruited from the SurveyMonkey Audience Tool Panel. Survey Monkey identified participants, who were also 50 years or older living in the U.S., and identifying as a widow/widower. The study contained 370 participants, however after attrition, which was about 27%, the final sample size of 271 participants was characteristic of
being 57 years of age on average, with a range of ages from 51 to 70. Participants were also 51% female. See table 1 for more details.

Materials

The materials in this study consisted of an online survey, delivered through Survey Monkey. The online survey consisted of several measures, including the intervention and control group prompts. The independent variable was dichotomous in nature; the intervention (the relational savoring task) or the control group (the daily writing task). The daily writing task was adapted from Bryant, Osowski and Smith (2021) with more pointed and directed questions, to offset their finding that the daily writing task functioned as a low-level savoring manipulation. These reading and writing tasks can be found in Appendix A. The dependent variables were continuous in nature: loneliness, grief intensity, positive affect, gratitude and meaning. Measures of covariates were also included in the survey, such as time since widowhood (i.e., date when the spouse passed away), attachment style, relationship satisfaction, gender, and savoring ability.

Measures. Time since widowhood was a measure created for this survey, which was an open-ended question on the date their spouse or romantic partner passed. Instructions were included on which format to use when entering the date, and if an incorrect format was used, an error message popped up.

The pre intervention battery assessment included loneliness, grief intensity, positive affect, gratitude, meaning, and savoring ability. Although there are many measure of loneliness, the one chosen for this study was the measure created by Russell, Peplau, and Cutrona (1980) and then reduced to three items by Russell (1996) that has a strong internal reliability of alpha=.91. Choosing a proper grief scale proved cumbersome as many scales have been created to test the minutia like experiences of grief, that can be quantified and measured. However, for
this study, the RGEI (Lev, Munro & McCorckle, 1993) was used, due to its compact number of items, but high alpha levels (.93). The positive affect (PANAS) items (adapted from Watson, Clark & Carey, 1988) had three items (alpha=.91). The gratitude measure (McCullough, Emmons & Tsang’s (2002) included 4 items (alpha=.92). The meaning measure (MLQ) (Steger, Frazier, Oishi, & Kaler, 2006) had 4 items (alpha=.92). Lastly, to assess for baseline savoring ability, the 12-item savoring beliefs inventory (SBI) (alpha=.94) was employed (Bryant, 2003). The SBI has 24 items, but it was deemed appropriate to use the shortened version of the SBI that contains only the positively-worded items.

The participants in the experimental condition completed the relational savoring writing task (i.e., the intervention). The writing task was adapted from the Smith & Bryant’s (2019) study. In that study, the savoring intervention writing task was worded as follows, “select a valuable lesson that was ‘so priceless and precious to you, that you would never want to be young all over again unless you could take [this life lesson] …back to the past with you” (Smith & Bryant, 2019). For this study the open-ended prompt was adapted in scope so the participants would be writing a powerful life lesson that they have specifically because of the loved one that is no longer with them (see Appendix A).

The participants in the control condition did not complete the relational savoring writing task (i.e., the intervention). These participants instead completed a writing task on the mundane retelling of their daily routine. This open-ended prompt is used often in savoring research (Pinel, Long, Landau, Alexander, & Pyszczynski, 2006; Bryant, Osowski, & Smith, 2021) because it may be difficult to create a savoring experience from such a writing prompt.

Both groups of participants completed the same battery of questions as prior to the intervention task. This battery assessment included loneliness, grief intensity, positive affect,
gratitude, and meaning. However, this time it also included the covariates: a 12-item attachment style (Weir, 2007) (alpha=.90), the 12-item savoring beliefs inventory (SBI) (Bryant, 2003) (alpha=.94), and a 4-item relationship satisfaction measure (Murray, Holmes & Griffin, 1996) (alpha = .88). Time since widowhood was also a covariate, but it was asked at the beginning of the survey. Gender was a covariate too, but it was given to us by SurveyMonkey who collects that data on the back end.

**Procedure**

Following the SurveyMonkey Audience Panel virtual invite being disbursed to the targeted demographic group, all participants had to undergo completing Survey Monkey’s own demographic questionnaire (i.e., gender, age, household income). Then Survey Monkey’s A/B function allowed for a balanced (on gender, and count) and randomized split between experimental and control groups. It is at this point that each respective group completed the pre intervention battery questionnaire, either the intervention (N=119) or control task(N=152) and ended with the post intervention battery questionnaire. Data collection ended with 370 participants, however after attrition, which was about 27%, the final sample size of 271 participants. Upon the completion of data collection, which lasted for two weeks in June of 2023, data processing had begun by exporting the survey data from Survey Monkey to SPSS. This is where the subsequent preliminary and main analyses took place.

**Data Preparation**

To prepare the data for analyses, a codebook was created to properly label variables that were pre intervention (and thus labeled as such) and variables that were post intervention. Missing data was checked for; especially if the intervention was not done. 28% of the original data set (N=370) stopped the study once faced with the intervention/control altogether, making
this the study’s attrition rate. Survey Monkey did not provide data on those that stopped the study, thus demographic differences could not be assessed between those who completed the study vs did not. Outside of that no entire question was missed, (some items of a measure were missed, but it was never more than 30% of the items). This may be since Survey Monkey Audience Tool requires all questions to be answered (although not in full) for a response to be considered ‘complete’. To further prepare for data analysis, composite scores, manipulation checks, and new variables had to be accounted for.

A covariate that has been mentioned throughout, is ‘time since widowhood’, this variable was posed as a question of when the spouse or partner had passed away. This was constructed as a date (i.e., dd/mm/yyyy). Entries that were entered in an improper format, received an error message that instructed the participant to correct their entry. This variable was then recoded from a date to years, so that lower numbers could indicate less time since the spouse or partner passed away, and higher numbers could indicate more time since the spouse or partner passed away.

Composite scores had to be created for the five dependent variables (grief, gratitude, positive affect, meaning, loneliness), as well as for covariates that required it, such as savoring beliefs inventory (i.e., SBI), attachment style, and relationship satisfaction. Prior to executing the function to create composite measures, individual items that would make up the measure were first assessed to see how correlated they were with one another. Due to these being field standard measures, all individual items of each measure were highly and significantly correlated, see scale alpha values below.

**Variable Creation and Measure Validity**

**Dependent Variables.** All dependent variables had measures that reported feelings/levels in the present moment, making them state measures (vs trait). The loneliness measure has an
The grief measure was represented by the RGEI and had an alpha of \( \alpha = .88 \). The positive affect (PANAS) items (adapted from Watson et al., 1988) has three positive items and they were composited accordingly and had an alpha = .94. The gratitude measure included 4 items, and it also was composited and had an alpha = .89. Lastly, the meaning measure (MLQ) (Steger et al., 2006) had 4 items and an alpha=.87.

**Experimental and Control Group.** Being in the intervention group was coded as ‘1’ and being in the control group was coded as ‘0’. The participants in the experimental condition completed the relational savoring writing task (i.e., the intervention). The participants in the control condition did not complete the relational savoring writing task (i.e., the intervention), these participants instead completed mundane retelling of their daily routine. A manipulation check was done to ensure those that were in the experimental group (i.e., relational savoring) actually savored, and those that were in the control group (i.e., daily routine writing task) did not actually savor. The manipulation check was the Savor-4 check (Bryant, Osowsk & Smith, 2021). This manipulation is designed to assess the level of savoring in which they actually engaged in (\( \alpha = .92, N = 271 \)). Participants are first asked a dichotomous item; whether or not they had experienced any positive feelings during the reflection task. If respondents answered “yes,” they were instructed to answer three additional, continuous-scale questions; if they answered “no,” they were instructed to skip the three additional questions. These three additional items (#2–4) asked participants to use a 7-point scale (1 = not at all, 7 = very much) to indicate the extent to which they (a) consciously acknowledged these positive feelings to themselves; (b) deliberately focused their attention on these positive feelings; and (c) thought or did anything that increased these positive feelings. Participants who answered “no” to the first of the four questions were coded as having responses of one. Responses to items 2,3, and 4 were then
averaged. This manipulation check proved that generally speaking, those that should have savored (i.e., experimental group) did, and those who should not have (i.e., control group) did not; the relational savoring task \( (M = 5.26, SD = 1.45, n = 119) \) produced a higher level of savoring compared to the control group depicting morning routine \( (M = 4.66, SD = 1.48, n = 152) \), \( t(269)= 3.34, p <.0010, \text{eta-squared}=0.09 \) (medium-sized effect).

**Covariates.** All covariates had measures that reported feelings/levels in the present moment, making them state measures (vs trait). The *time since the widowhood* measure was an open-ended question on the date their spouse or romantic partner passed. Attachment style was measured by a 12-item scale (Weir, 2007) and had an alpha= .88. The 4-item relationship satisfaction measure (Murray, Holmes & Griffin, 1996) had an alpha=.92. The savoring beliefs inventory (SBI) was employed (Bryant, 2003). SBI total score was computed by summing responses to the 12 items with an alpha=.87. Gender, which was provided by the SurveyMonkey Audience Tool, was asked categorically (female, male, other); no ‘other’ responses were entered by any of the participants, thus during analysis this variable operated as a dichotomous variable (female/male; 1/0).

**Change Scores.** Dependent variables (loneliness, grief, gratitude, meaning, and positive affect) each had a pre intervention and post intervention dimension. This was notated as such in the data file. However, additional variables were created for each of the five dependent variables: change/difference scores. This was computed by creating a new variable, coded by postmeasure minus premeasure. This would give the participants change on the given measure after going from pre intervention to post intervention.
CHAPTER THREE

RESULTS

Participant Demographics

Following the SurveyMonkey Audience Tool suggestions, no additional information was asked of the participants besides what Survey Monkey automatically asks them: age and gender. The study contained 370 participants, however after attrition, which was about 27%, the final sample size of 271 participants was characteristic of being 57 years of age on average, with a range of ages from 51 to 70. Participants were also 51% female. See table 1 for more details.

Table 1. Participants demographics including time since widowhood (i.e., widowhood length), gender, and age.

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widowhood length</td>
<td>271</td>
<td></td>
<td>6.83</td>
<td>4.87</td>
</tr>
<tr>
<td>Gender</td>
<td>271</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>138</td>
<td>51</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Male</td>
<td>133</td>
<td>49</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age</td>
<td>271</td>
<td></td>
<td>57</td>
<td>1.92</td>
</tr>
<tr>
<td>Intervention Group</td>
<td>119</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Control Group</td>
<td>152</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Main Analysis

Before conducting any analyses to assess for impact of intervention, we ran a MANOVA on pre measures and covariates. This was to establish there was no inherent different between the
groups prior to the intervention. There was no significant difference between the two conditions (intervention vs control) for any of the premeasures of the dependent variables (grief, gratitude, meaning, positive affect, loneliness), $F(5, 260) = 1.75, p = .124; $ partial eta squared $= .038$. See table 2a. However, two covariates showed some significance; gender, $F(5, 260) = 2.62, p = .025$, partial eta squared $= .055$ and time since widowhood which showed to be marginally significant only, $F(5, 260) = 2.11, p = .065$, partial eta squared $= .045$. See table 2b.

Although gender and time since widowhood offered some significance, none of the individual pre variable tests were significant, the effect sizes were very small, and the pattern of differences was not consistent across variables. Thus, since the groups were not different at pretest, we felt justified to interpret the change scores as demonstrating the effects of the treatment.

The second one-way MANOVA was conducted to determine whether there is a difference between the intervention and control group on the change (i.e., differences pre and post intervention) scores; there was a significant difference between the two conditions (intervention vs control) for all scores together, $F(5, 260) = 12.28, p = 0.000; $ partial eta squared $= 0.225$. For individual dependent variables, the intervention was significant for all except loneliness, and all differences were in the expected directions. See table 3. Additionally see figures 1-5. To further explore the lack of an intervention effect on loneliness, analyses were done on the post-pre difference scores for each condition separately. The difference in the intervention group was significant ($t(109) = 3.04, p < .001$). However, the difference, although smaller, was also significant for the control group ($t(146) = 1.87, p = .03$). Thus, for some reason participants in the control group also showed reduced levels of loneliness. We give some reasoning for this in the discussion.
Table 2a. First one-way MANOVA comparing the intervention group to the control group for the pre scores of the dependent variables, including the covariates (those values can be seen in table 2b below).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Intervention (N=119)</th>
<th>Control (N=152)</th>
<th>F (1, 260)</th>
<th>Sig.</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>1.85</td>
<td>.700</td>
<td>1.87</td>
<td>.664</td>
<td>.004</td>
</tr>
<tr>
<td>Gratitude</td>
<td>5.01</td>
<td>1.02</td>
<td>5.12</td>
<td>.960</td>
<td>.685</td>
</tr>
<tr>
<td>Meaning</td>
<td>5.15</td>
<td>1.38</td>
<td>4.99</td>
<td>1.41</td>
<td>.731</td>
</tr>
<tr>
<td>Grief</td>
<td>2.64</td>
<td>1.39</td>
<td>2.52</td>
<td>1.23</td>
<td>1.94</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>3.27</td>
<td>.994</td>
<td>3.15</td>
<td>1.01</td>
<td>.343</td>
</tr>
</tbody>
</table>

Table 2b. First one-way MANOVA comparing the intervention group to the control group for the pre scores of the dependent variables, including the covariates below.

<table>
<thead>
<tr>
<th>Measure</th>
<th>F (1, 260)</th>
<th>Sig.</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savoring Ability</td>
<td>1.790</td>
<td>.116</td>
<td>.038</td>
</tr>
<tr>
<td>Attachment</td>
<td>.878</td>
<td>.497</td>
<td>.019</td>
</tr>
<tr>
<td>Relationship Satisfaction</td>
<td>1.591</td>
<td>.164</td>
<td>.034</td>
</tr>
<tr>
<td>Time Since Widowhood</td>
<td>2.113</td>
<td>.065</td>
<td>.045</td>
</tr>
<tr>
<td>Gender</td>
<td>2.628</td>
<td>.025</td>
<td>.055</td>
</tr>
</tbody>
</table>
Table 3a. Second one-way MANOVA comparing the intervention group to the control group for the change scores of the dependent variables, which included the covariates (those values can be seen in table 3b below).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Intervention(N=119)</th>
<th>Control(N=152)</th>
<th>F (1, 260)</th>
<th>Sig.</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>-.136</td>
<td>.408</td>
<td>-.042</td>
<td>.267</td>
<td>2.171</td>
</tr>
<tr>
<td>Gratitude</td>
<td>.311</td>
<td>.557</td>
<td>-.036</td>
<td>.746</td>
<td>9.886</td>
</tr>
<tr>
<td>Meaning</td>
<td>.489</td>
<td>.669</td>
<td>-.062</td>
<td>.794</td>
<td>24.098</td>
</tr>
<tr>
<td>Grief</td>
<td>-.392</td>
<td>.671</td>
<td>-.153</td>
<td>.560</td>
<td>9.444</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>.191</td>
<td>.483</td>
<td>-.125</td>
<td>.493</td>
<td>20.400</td>
</tr>
</tbody>
</table>

Table 3b. Second one-way MANOVA comparing the intervention group to the control group for the change scores of the dependent variables, which included the covariates seen below.

<table>
<thead>
<tr>
<th>Measure</th>
<th>F (1, 260)</th>
<th>Sig.</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savoring Ability</td>
<td>.338</td>
<td>.890</td>
<td>.008</td>
</tr>
<tr>
<td>Attachment</td>
<td>1.239</td>
<td>.292</td>
<td>.028</td>
</tr>
<tr>
<td>Relationship Satisfaction</td>
<td>.599</td>
<td>.701</td>
<td>.014</td>
</tr>
<tr>
<td>Time Since Widowhood</td>
<td>.738</td>
<td>.596</td>
<td>.017</td>
</tr>
<tr>
<td>Gender</td>
<td>.885</td>
<td>.492</td>
<td>.020</td>
</tr>
</tbody>
</table>
**Figure 1.** Dependent variable *gratitude* and its change for pre and post intervention group (i.e., relational savoring and control).

**Figure 2.** Dependent variable *loneliness* and its change for pre and post intervention group (i.e., relational savoring and control).
Figure 3. Dependent variable *meaning* and its change for pre and post intervention group (i.e., relational savoring and control).

Figure 4. Dependent variable *grief* and its change for pre and post intervention group (i.e., relational savoring and control).
Supplemental Analysis

Moderation and mediation models were run, using Hayes (2013) SPSS PROCESS software, to assess if any variables could act as such. Since dependent variables were depicted by their change scores—pre and post scores—they are considered longitudinal vs cross-sectional. Many different groupings of variables were assessed for their potential to be a moderator and mediator; however, no mediators were found, and only two significant moderators were found. The independent variable was dichotomous in nature (experimental or control), there were five continuous dependent variables (grief, loneliness, gratitude, positive affect, and meaning), and five covariates (gender, time since widowhood, attachment style, relationship satisfaction and savoring ability).
Moderation. In the first model, the outcome variable for the analysis was grief change. The predictor variable for the analysis was the intervention. The moderator variable evaluated was relationship satisfaction. The interaction between the intervention and relationship satisfaction was found to be statistically significant ($b = -0.11$, 95% C.I. (-.23, .00), $p =0.05$). A simple slopes analysis showed the conditional effect of intervention on grief showed corresponding results. At low levels of relationship satisfaction, there was no relationship between intervention and grief ($b= -.15$, $t$ (246) =-1.15, $p=.25$). For average levels of relationship satisfaction, there was a significant relationship between intervention and grief ($b= -.33$, $t$ (246) =-3.49, $p=.00$). Similarly, for high levels of relationship satisfaction, being in the intervention decreased levels of grief ($b= -.48$, $t$ (246) =-4.01, $p<.01$). Thus, the intervention was effective for decreasing grief only when relationship satisfaction was average or higher.

In the second model, the outcome variable for the analysis was meaning change. The predictor variable for the analysis was the intervention. The moderator variable evaluated was savoring ability. The interaction between the intervention and savoring ability was found to be statistically significant ($b = .54$, 95% C.I. (.15, .92), $p =0.01$). A simple slopes analysis showed the conditional effect of intervention on meaning showed corresponding results. When savoring ability was low, there was no relationship between the intervention and meaning ($b= .21$, $t$ (251) =1.57, $p=.12$). However, at average levels ($b= .47$, $t$ (251) =4.79, $p<.01$), and high levels ($b= .48$, $t$ (251) =5.28, $p<.01$) of savoring ability, the intervention increased meaningfulness relative to the control group. Thus, the intervention was effective for increasing meaning only when savoring ability was average or higher.
**Mediation.** Given the assumption that relational savoring would influence the relevant outcome variables through increased positive affect, four mediation analyses were performed—one for each of the other dependent variables (loneliness, grief, gratitude, and meaning). However, affect did not mediate the relationship between intervention and any of the other four dependent variables. See Table 4. Thus, there was no evidence to support the mediational role of positive affect on the differences found due to the intervention.

Table 4. *Mediation Analysis Summary.*

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Total Effect</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Confidence Interval [95%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention → Positive Affect → Loneliness</td>
<td>-.07 (p=.13)</td>
<td>(.p=.07)</td>
<td>.02</td>
<td>-.01</td>
</tr>
<tr>
<td>Intervention → Positive Affect → Grief</td>
<td>-.32 (p=.00)*</td>
<td>(.p=.00)*</td>
<td>.01</td>
<td>-.06</td>
</tr>
<tr>
<td>Intervention → Positive Affect → Gratitude</td>
<td>.29 (p=.00)*</td>
<td>(.p=.00)*</td>
<td>.01</td>
<td>-.06</td>
</tr>
<tr>
<td>Intervention → Positive Affect → Meaning</td>
<td>.48 (p=.00)*</td>
<td>(.p=.00)*</td>
<td>.02</td>
<td>-.03</td>
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* *p < .05*
Grief and its consequential impacts on other parts of our psychosocial wellbeing tend to weigh heavier on older adults who are already experiencing higher levels of loneliness and social isolation. These comorbidities present as risk factors for medical illnesses and eventual cognitive decline. This study investigated the development of an intervention that could lead older adults to fare better after losing a loved one. The goal of this current research was to begin understanding the impact savoring can have for someone experiencing grief. The central hypothesis was that a relational savoring writing exercise which primes and enhances positive emotions would improve psychosocial aspects of the lives of elderly persons who have suffered loss. The results provide some support for this hypothesis. The results of the MANOVA showed that the intervention (relative to control) significantly improved outcomes. However, follow up univariate tests showed the changes were only significant for four outcome variables: meaningfulness, positive affect, grief and gratitude. No significant differences were found for loneliness, although the difference was in the expected direction.

Although the reduction in loneliness after the intervention was significant, there was also a reduction in the control group. This change in the control group may have masked the effects of the intervention. Finding a neutral control for a savoring intervention remains a methodological quest for researchers; a task that may be neutral for middle aged adults, may prove to be less neutral for older adults (Bryant, Osowski, & Smith, 2021). This may be because
the control condition of daily routine writing may have offered a reminiscing experience, and even though a Savor-4 manipulation check was done on the control group and they did not seemingly savor, Savor-4 focuses on the positive feelings in savoring, not the reminiscing aspect. Reminiscing is a powerful tool, especially for older adults on its own; as we get older, even mundane tasks can be extraordinary and offer us some benefit (Coleman, 2005). It is also possible that any task that distracted participants or implied an interpersonal connection would decrease loneliness for older adults. Future research may want to explore other more neutral types of control conditions, like a writing prompt on the steps involved with changing a light bulb (See Bryant, Osowski, & Smith, 2021).

Another potential issue concerning loneliness may stem from its complex nature. Akhter-Khan & Au (2020) argue that current loneliness interventions are often unsuccessful due to their lack of consideration of loneliness as a heterogeneous construct and not being targeted at the right times for individuals. They suggest we need a more nuanced picture of loneliness especially because of its comorbid symptom, depression. In terms of the complexity of loneliness, they assert that too often interventions only address one specific element of loneliness, like mental health or a living situation. More effective interventions should be more specific and consider different types, for example emotional loneliness vs physical loneliness. Related to this study, that could mean adding more understanding around the construct of loneliness in an older adult who has just lost a romantic partner. For example, it may be important to parse out if they recall experiencing loneliness even prior to the death or is this an acute emergence of loneliness?

The proposed mechanism of change underpinning relational savoring work is that it may be effective because of its ability to *prime and enhance positive emotions*. This may be because
positive emotions can help broaden a person’s thoughts, and cultivate personal resources like resilience (Borelli et al., 2020; Fredrickson, 1998) and relational savoring taps into these processes. The relational savoring writing tasks’ questions attempted to guide the participant to consciously acknowledge positive feelings to themselves and deliberately focus their attention on these positive feelings. However, this study did not find that the PANAS (the measure assessing positive feelings) acted like a mediator for any of the four other dependent variables. Thus, the mechanism, or mechanisms, underlying the changes found here remain unknown. A primary reason for the lack of mediation, may be because this was a cross-sectional study without any longitudinal aspects involving savoring.

Although mechanisms other than positive affect may be producing the obtained results, it is also possible that the PANAS may not have been the best measure to use. Future researchers should try different positive affect measures that assess stable (trait) emotions like the State-Trait Emotion Measure (STEM) (Levine, Xu, Yang, Ispas, Pitariu, Bian & Musat, 2011). Here we used PANAS, which has been scrutinized because the emotions listed in the scale display unipolarity, while theoretically affect/emotions were thought to be a bipolar construct (a composite of one’s valence and arousal). Additionally, PANAS muddies the constructs by assessing affect, emotion, and mood (Ekkekakis & Russell, 2013). STEM on the other hand, looks at stable and current emotions, offers definitions of that emotion, and different time markers separately (i.e., generally vs right now) (Levine, et al., 2011). Future researchers could also look into different but related mechanisms of change for relational savoring, such as optimism or hopefulness.

Future research may also want to further explore the moderation effects discovered here. The effect of the intervention on grief was only significant for moderate and higher levels of
relationship satisfaction. The intervention appeared to be ineffective for lower levels of relationship satisfaction. Thus, savoring interventions of this type may be somewhat less effective when the initial relationship was not satisfying. Further explorations of how relationship satisfaction may influence other types of savoring may be in order. In addition, savoring ability was found to moderate the intervention’s effect on meaning. The intervention showed increases in meaning only for participants who showed average or higher levels of savoring ability. Little meaning increase was found for low levels of savoring ability. Thus, interventions of this type may be more effective after some type of training in savoring techniques.

The findings of this study can still provide critical information for the curation of a relational savoring type intervention for grieving older adults. These findings extend to the hope that a targeted intervention could be used to increase the quality of the life for older adults after a loss and potentially alleviate detrimental side effects of grief. However, the current results still leaving many questions unanswered. Future research should compare different types of savoring interventions to see if they are differentially effective for improving the well-being of the elderly after loss. Also, the current study measured outcomes immediately after the intervention. Future studies may want to remeasure such outcomes at different levels of delay to see whether the effects found here are robust over time. However, these results at least show that such interventions may be useful for attenuating the negative effects of loss for elderly populations.
APPENDIX A

CONDITION WRITE-UPS

Relational Savoring Writing Task (Bryant, 2020):

Relational Reflection Task Instructions.

As you make your way through this relational reflection task, please keep in mind your relationship with your spouse/partner.

As we come to know our closest loved ones better over the course of our lives, they often teach us important things about life or about ourselves that we would never have learned on our own. The special insights that our closest loved ones give us may involve a way of looking at things in our lives, or of looking at ourselves or other people, that we might never have discovered by ourselves.

Over time, we tend to internalize the “life lessons” that our loved ones teach us. In this way, those that we love become a part of us and live forever in our hearts and minds.

Even when your closest loved one is not with you, you can sometimes sense exactly what your loved one would think or what they would say in a particular situation. Realizing that a part of your loved one has become a part of you also makes you feel connected to your loved one in a special way that you can never lose. Sometimes you may even imagine the sound of their voice telling you certain things that have now become a part of you.

These priceless lessons that your loved one taught you may give you guidance and help you maintain your perspective on life, they may lift your spirits and encourage you, or they may give you hope. When you recognize that your loved one has given you these special thoughts or ways of looking at things, you realize that your loved one is a part of you and will always be with you.

1. Looking back on your life, what are some of the valuable lessons that your loved one taught you that have now become a part of you? Please write about a few of these valuable lessons.
2. If you can, please pick one of these valuable “life lessons” that your loved one taught you that stands out the most to you. After you pick this lesson, please describe a specific experience with your loved one when you learned this life lesson if you can.

3. Since your loved one passed away, have there been any times or situations in which you recognize important things that your loved one has taught you? What kinds of situations make you more aware of the precious life lessons or insights that your loved one has given you?

4. How does it make you feel when you recognize the special gifts that your loved one has given you and realize that these parts of your loved one have now become a part of you?

Control Group (i.e., comparison group) Writing Task (adapted from: Pinel et al., 2006)

Please think about your morning routine from the time you wake up until the time you finish your breakfast and begin your other daily activities.

1. Using as much detail as possible, describe what normally happens during your morning routine.

2. What time do you normally start your morning? If you have breakfast, what do you eat?

3. What do you typically have to eat or drink for breakfast?

4. What thoughts are you having now about your morning routine, would you want to change some order of the things you do in the morning?
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VITA

Ajla Basic was born and raised in Sarajevo, Bosnia and Hercegovina. Before attending graduate school at Loyola University Chicago, she also attended Loyola University Chicago for her undergraduate studies, where she earned her Bachelor of Science in Psychology, in 2017. There she received a Psychology Honors Thesis Award, was nominated for the Thomas M. Kennedy Award for Outstanding Service and was a member of the College of Arts and Sciences’ Dean List.

From 2013 to 2024, while at Loyola University Chicago, she obtained her Master of Arts in Applied Social Psychology and Ph.D. also in the Applied Social Psychology program at Loyola University Chicago. She lives in Chicago, Illinois.