



Resilience and Meaning in the Relationship Between Life Adversities and Successful Aging – A Mediated Moderation

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ABSTRACT

This study aimed to investigate the moderating role of reappraisal of life experiences and resilience in the relationship between life course stressors and successful aging. The sample comprised 398 individuals, aged 45 – 91 years old. To address the research objective, a quantitative survey was administered, encompassing The Brief Resilience Scale, Successful Aging Inventory, The Meaning-Making Scale, and Life Stressor Checklist – Revised. The findings revealed that moderating relationships were supported by the data, meaning that lifetime stressors and successful aging had negative associations only when participants reported a low level of reappraisal life experiences or low resilience. These findings are in line with existing literature, supporting that reappraisal of traumatic events is associated with fewer posttraumatic stress symptoms and higher levels of posttraumatic growth (Cromer & Smyth, 2010; Park & Ai, 2006). The results contribute to a better understanding of how interventions can be designed to promote subjective successful aging. By promoting positive reinterpretation of events and building resilience, elderly people are more likely to experience successful aging, thus extending their well-being throughout life.

Keywords: *resilience, successful aging, adverse life events, meaning, protective factors*

1. INTRODUCTION

Successful Aging

Although research has made significant progress in recent decades regarding the concept of successful aging,

numerous controversies persist regarding its conceptualization and operationalization. The initial attempts to explain successful aging belong to Rowe and

Kahn (1987), whose objective was to nuance the pathological-non-pathological distinction (i.e., between older individuals with conditions or disabilities and those without), adding the distinction between usual aging (associated with individuals at high risk of conditions and disability) and successful aging, associated with those at low risk of conditions and with high functionality. The target of interventions thus becomes elderly individuals in the first category, who can age "successfully." According to Rowe and Kahn (1987, 1997), successful aging has three components: a low probability of conditions or disability (including the absence, presence, or severity of risk factors for disease), high cognitive and physical functional capacity (referring not only to the activities a person does but those they have the physical and cognitive potential to do), and active involvement in daily life (with two major components: (1) interpersonal relationships based on interactions, exchange of information and resources with others, social support, and direct assistance, and (2) productive activity).

Although most studies on successful aging start from Rowe and Kahn's conceptualization, numerous criticisms have been raised against this perspective. Firstly, it entirely excludes the subjective perception of older individuals regarding their own life satisfaction from the conceptualization of successful aging, promoting a reductionist conceptualization and unrealistic standards in relation to aging. Results show that only a very small percentage of the elderly population meets these criteria, and interventions to help those aging "normally" transition to successful aging thus exclude a majority of the elderly population, which does not benefit from the opportunity to improve their quality of life (McLaughlin et al., 2010). Moreover, studies have repeatedly shown that the absence of illness or disability (a central component of Rowe and Kahn's conceptualization) is not a significant predictor of life satisfaction or well-being in old age (Romo et al., 2013; Strawbridge et al., 2002). Indeed, most participants consider that they have aged successfully despite having a disability or chronic condition (Montross et al., 2006). In a literature review, the authors identified a generally higher prevalence of self-reported successful aging in studies, supporting the idea that the subjective perception of successful aging does not always align with the theoretical definitions proposed by researchers (Depp & Jeste, 2005). While neither perspective necessarily invalidates the other, it is argued that approaches to successful aging should include a balanced perspective, considering both the objective and subjective evaluations of the individuals involved.

Rowe and Kahn's approach to successful aging is also criticized because it suggests that old age is inherently a period of loss and degradation, without highlighting the positive aspects that individuals gain with age. In reality, old age can have either a neutral sense of "change" as a natural transition to a life stage with different manifestations and

abilities, or a sense of "growth" or "development," with older individuals often associated with a higher level of "wisdom," tolerance for uncertainty, and negative events. The accumulated life experience over the course of a longer existence is also a valuable factor in aging (Vaillant & Mukamal, 2001).

Another significant criticism is the disregard for social responsibility and the placement of the entire responsibility for the aging process on the individual. In short, the central theory in the field of successful aging is considered reductionist and discriminatory, promoting old age not as a new stage of development but as an extension of youth, exclusively under the individual's control (Liang & Luo, 2012). Furthermore, it attributes a negative connotation of personal failure to the natural aging process, often resulting in functional impairment and vulnerability to illness (Moody & Sasser, 2012). Such conceptualization creates pressure for most elderly individuals, compromising their life satisfaction or well-being as an aspect of successful aging.

Adverse Life Events and Successful Aging

Adverse events or stressors are significant experiences with negative emotional impact, potentially traumatic (not necessarily traumatic), that require the use of personal resources for their management, putting pressure on individuals' adaptive capacities (Cohen et al., 2007). Examples of adverse experiences include car accidents, natural disasters, physical/sexual/emotional abuse, abandonment, incarceration, adoption, divorce, death of close individuals, etc. Adverse experiences have been associated with numerous negative consequences on emotional, social, and physiological levels. Their impact is often maintained in the long term, both directly and indirectly, through their consequences (e.g., physiological stress responses) or the mechanisms used to cope with them (Chartier et al., 2010; Kaufman et al., 2000; Rao et al., 2008). For example, under intense chronic stress, a person may start to excessively consume alcohol, affecting social relationships and health (Kim, 2017). Exposure to stressors (even acute ones) can increase the risk of developing mental disorders (anxiety, depression), thus prolonging stress, turning it into a chronic one, and amplifying potential long-term losses (social, occupational) (Marin et al., 2011; Mariotti, 2015). The literature defines these patterns through "risk chain" models, referring to social, biological, and psychological events that interlink, and manifest sequentially, with each influencing the likelihood of another event occurring. Although these models were initially proposed and are most often investigated in relation to the onset of physiological conditions (which constitute the culmination of the risk chain), they are equally applicable in the field of mental health, well-being, and overall life satisfaction.

Individuals reaching old age inevitably accumulate numerous life experiences, both positive and negative. The longer people live, the higher the probability that they have experienced a greater number of negative experiences throughout their lives. It is well-known that, although isolated adverse experiences do not always have long-term effects, the cumulative effect of exposure to multiple such experiences exponentially increases the risk of negative consequences (Newbury et al., 2018). Moreover, with advancing age, the risk of experiencing stressors such as a restricted social network (due to the death of friends, acquaintances, reduced mobility, retirement, etc.), loss of a life partner, illness, etc., increases. The relationship between adverse life experiences and successful aging has been investigated in a limited number of studies. For example, Hsu (2011), in a longitudinal study conducted over 11 years, explored how adverse life experiences and chronic conditions influence successful aging. The latter was assessed through seven indicators: basic physical functionality (eating, dressing, personal hygiene activities, etc.), advanced physical functionality (shopping, managing money, using public transportation, etc.), good emotional health (absence of depressive symptoms), normal cognitive functioning, emotional support, involvement in productive activities (household, professional work, membership in social, religious, associations, etc.), and overall life satisfaction. The results showed that, among adverse experiences, the loss of a child significantly increased the risk of developing physical and psychological conditions and affected life satisfaction. The recent loss of a life partner predicted depressive symptoms, while a recent divorce predicted poor social support (Hsu, 2011). These results particularly emphasize the importance of recent adverse events on successful aging.

Resilience and Successful Aging

Resilience and successful aging are sometimes used interchangeably, with resilience factors overlapping with elements that contribute to the conceptualization of successful aging. One of the challenges in investigating the relationship between the two concepts is establishing a clear conceptual demarcation (Pruchno et al., 2015). In attempting to conceptualize them, Pruchno et al. (2015) identify several important differences: (1) unlike successful aging, resilience involves confronting a stressor; (2) resilience is considered a personality trait or a process, while successful aging is seen more as a state (level of physical, cognitive, and social functionality); (3) conceptualizations of successful aging emphasize aspects related to physical functioning to a greater extent, while resilience specifically refers to the absence of major negative consequences or psychological impairments (e.g., post-traumatic stress disorder) following exposure to adverse experiences; and (4) resilience is a trait present throughout life, investigated in

children, adolescents, adults, and the elderly, while successful aging is limited to old age (Pruchno et al., 2015). Perhaps even more importantly, while resilience involves adapting to adversity and returning to a state of functionality, successful aging encompasses the idea of generativity and productivity - meaning that elderly individuals who not only maintain good health and functionality but also continue to grow, create, and be involved in daily social life are those who age successfully.

Despite these distinctions, some conceptualizations of resilience in the context of old age remain more closely related than distinct from the concept of successful aging. For example, Greve and Staudinger (2006) propose a model of resilience in old age in which it is not considered a trait or a state but rather a dynamic accumulation or constellation of personal and contextual resources. Specifically, resilience is seen as the balance between developmental stressors (psychological and non-psychological), biological, physical, socio-economic, and psychological resources (cognitive, social, and personality) that aid in the successful confrontation of stressors and the developmental status resulting from the interaction of risk and protective factors. It encompasses psychological and non-psychological indicators of functionality. Similarly, Wild et al. (2013) propose a model of resilience in old age that can be almost confused with the conceptualization of successful aging. According to them, resilience is more contextual and collective, with different levels of manifestation, starting from the individual level and gradually extending to the level of social resilience. It includes not only resilience as an individual capacity to cope with life adversities but also resilience as a gradual construction, dependent not only on the individual but on the entire system in which the individual develops. It incorporates household resilience, family resilience (family support), neighborhood resilience (relational resources in the neighborhood, friends), community resilience (access to transportation, mobility, positive community attitudes toward the elderly), and societal resilience (public policies in favor of the elderly, non-discriminatory social attitudes). The relationship between these forms of resilience contributing to overall resilience is partially overlapping and interactive. For example, mobility resilience may refer to an individual's ability to walk, and drive a car, as well as infrastructure elements (accessible, quality public transportation; Wild et al., 2013).

Since these conceptualizations of resilience are closer to the definition of successful aging, described as a specific form of resilience in old age, for the purpose of this research and to avoid conceptual overlaps, we will refer to resilience conventionally defined as a personality trait, as an individual ability to cope with adversities, and how it can contribute to successful aging.

Alongside other personality traits, such as optimism and self-efficacy (Carver & Buchanan, 2016), resilience appears

to favor good adaptation to the changes that aging brings (Ong et al., 2006). Individuals with high levels of resilience manage more efficiently and face fewer negative consequences due to common age-related events, such as the death of close individuals, loneliness, poverty, or chronic illnesses (Fontes & Neri, 2015; Resnick et al., 2015; Wu et al., 2017). Li et al. (2015) tested a prediction model for depression in old age, including three predictors: loneliness, resilience, and social support. This model explained 32.9% of the variance in depression among participants. Similarly, da Silva-Sauer, Lima et al. (2021) showed that resilience moderates the relationship between perceived stress in old age and depressive symptoms, with individuals with moderate and high levels of resilience reporting fewer depressive symptoms as a result of stress. Individuals with higher resilience also maintain higher levels of cognitive abilities and daily functionality (Fazeli et al., 2019), have lower levels of stress and medical conditions (da Silva-Sauer, Basso Garcia, et al., 2021). Additionally, Zeng and Shen (2010) demonstrated that individuals with higher resilience are more likely to become centenarians. In other words, resilience predicts not only a happier but also a longer old age.

Resilience and Meaning

Attributing meaning to negative life events is a coping strategy that facilitates their management; in other words, reframing can contribute to the reinforcement of an individual's resilience in the face of stressors.

Studies show that the ability for positive cognitive restructuring (perceiving the benefits/positive effects of negative events) is associated with higher resilience among individuals with depression and anxiety (Min et al., 2013), better ability to manage exposure to disasters (natural, human-induced, etc.; Shing et al., 2016), and better adaptation to the experience of losing a partner (individuals who make sense of the experience record lower decreases in positive emotionality; Ong et al., 2010). Furthermore, the relationship between resilience and finding meaning seems to be bidirectional. For example, Vannini et al. (2021) showed that high resilience promotes the use of functional coping strategies, leading to lower stress levels in the context of the COVID-19 pandemic as an adversity, particularly among the elderly. Reframing is particularly useful in increasing resilience following adverse experiences whose resolution is beyond an individual's control (Shing et al., 2016). In old age, most adverse experiences that individuals have faced or are facing (loss of loved ones, childhood abuse, medical conditions) can no longer be managed through problem-focused coping strategies. Therefore, attempting to find meaning is a much more effective way not only to resist suffering but even to exploit it for personal growth. Moreover, reframing negative experiences has the benefit of counteracting tendencies to

avoid suffering or memories related to an event, encouraging, instead, healthy cognitive exposure to these experiences. To make sense of an experience, it is necessary to remain in contact with it, so recovery or adaptation occurs in the presence of the stimulus or stressor (Shing et al., 2016).

Finding meaning, identified in the literature as positive reappraisal, is therefore a coping strategy with negative events that can enhance resilience, especially in the case of uncontrollable or unresolved negative events. Thus, it is legitimate to expect this strategy to be even more relevant in old age for increasing resilience..

The present study

Identifying factors that facilitate successful aging and are at least partially within an individual's control is essential to create a sense of self-efficacy and confidence that aging is not just an inevitable decline witnessed helplessly. Also, to alleviate the excessive pressure that more established conceptualizations of successful aging place on the individual, it is important to consider environmental factors, beyond an individual's control, that can influence the aging process. Among these, as highlighted in previous studies, adverse (potentially traumatic) experiences are particularly relevant due to their long- and very-long-term effects (including adverse childhood experiences such as parental relationships or early parental death). However, not all individuals facing adverse experiences will encounter difficulties in life or experience decline with aging. This suggests that there are factors that mitigate the negative effects of adverse experiences; among these, resilience is the most frequently investigated factor in relation to successful aging, with numerous studies supporting its importance in the aging process.

Despite the literature providing consistent evidence for the protective role of resilience, far fewer studies investigate the factors that help enhance resilience. Identifying these factors is crucial for properly informing interventions aimed at strengthening individuals' abilities to successfully cope with life's challenges and age harmoniously. Given that many stressors that continue to affect older individuals are irreversible (representing either traumatic experiences from the past or conditions, disabilities, or other specific difficulties related to this stage of life), it is important that interventions to enhance resilience include techniques focused more on alleviating effects than finding solutions. One such technique is positive reappraisal or reframing of negative experiences, i.e., the ability to find and exploit the benefits of lived experiences (attributing meaning, a sense of personal growth, awareness of personal values, etc.). Due to the numerous advantages it has on individuals' overall functioning, particularly among the elderly, it is legitimate to expect that positive reappraisal promotes successful aging. Since reframing is more of a cognitive-

emotional coping strategy (involving cognitive mechanisms with emotional effects), we expect its beneficial effects to manifest particularly in subjectively perceived successful aging among older individuals.

Until now, the majority of studies have investigated the role of individual factors (lifestyle, personality traits) in the aging process, with much fewer considering adverse experiences throughout life. Furthermore, no study has explored potential protective factors in the relationship between adverse experiences and successful aging. Therefore, this study aims to test a model of moderated mediation, examining the interaction between adverse experiences as environmental factors and resilience and reframing as intraindividual factors in successful aging. If reframing adverse experiences indeed strengthens resilience among the elderly, interventions aimed at improving their quality of life should include cognitive

2. METHODOLOGY

Participants and procedure

The study included 398 participants aged between 45 and 91, with an average age of 61.52 and a standard deviation of 10.74. Of these, 202 (50.8%) identified as female, and 196 (49.2%) identified as male; 327 (82.2%) were married, 32 (8%) were divorced, 2 (.5%) were unmarried, 9 (2.3%) were widowed, and 28 (7%) were widows. In terms of education, 138 (34.7%) had primary education, 146 (36.7%) had secondary education, and 114 (28.6%) had university education. Additionally, 54 (13.6%) participants were from rural areas, while 344 (86.4%) were from urban areas. All research participants provided informed consent. The instruments were administered in a paper-and-pencil format and then entered into SPSS for analysis. The completion of the instruments took an average of 30 minutes. The data collection process spanned three months.

Instruments

Resilience was measured using the Brief Resilience Scale (Smit et al., 2008), comprising six items (e.g., I can usually bounce back quickly after hard times) scored on a scale from 1 to 5, where 1 indicates strong disagreement

3. RESULTS

Descriptive statistics

The 398 participants exhibited the following descriptive statistics. For Life Stressors, the scores ranged from a minimum of 1 to a maximum of 13, with an average of 2.25 and a standard deviation of 1.07. For Successful Aging the scores ranged from a minimum of 33 to a maximum of 79, with an average of 58.89 and a standard deviation of 5.76.

restructuring techniques to highlight the benefits and meaning of negative experiences.

To achieve the research objectives, the following hypotheses will be tested:

H1: *Individuals more affected by adversities throughout their lives report lower levels of perceived successful aging.*

H2: *The relationship between life stressors and successful aging is reduced for individuals with a higher tendency to make sense of negative experiences.*

H3: *The tendency to make sense of negative experiences diminishes the association between life adversities and successful aging by enhancing resilience.*

and 5 indicates strong agreement. A higher score suggests a higher level of resilience.

Successful aging was measured with Successful Aging Inventory (Troutman et al., 2011), consisting of 20 items (e.g., I can perform the activities I need to take care of my home and myself - cooking, hygiene, dressing) scored on a scale from 0 to 4, where 0 means almost never/strongly disagree, and 4 means almost always/strongly agree.

Meaning-making was measured with the Meaning-Making Scale (van den Heuvel et al., 2009), which includes seven items (e.g., When going through difficult experiences, I quickly understand their meaning/why they are happening) scored on a scale from 1 to 6, where 1 indicates strong disagreement and 6 indicates strong agreement.

Life stressors were measured with the Life Stressor Checklist – Revised (Wolfe et al., 1997), comprising 30 items (e.g., In childhood (before the age of 16), did you witness violence between family members - hitting, slapping, etc.?) answered with Yes or No. The score involves the sum of the number of questions answered with Yes.

For Resilience, the scores ranged from a minimum of 2.86 to a maximum of 6.14, with an average of 3.48 and a standard deviation of .46. And for Meaning-Making the scores ranged from a minimum of 2.86 to a maximum of 6.14, with an average of 4.55 and a standard deviation of .60. These results are presented in Table 1.

Table 1. Descriptive statistics

	Minimum	Maximum	Mean	SD
Stressors	1.00	13.00	2.25	1.07
Successful-aging	33.00	79.00	58.89	5.76
Resilience	1.67	5.00	3.48	.46
Reappraisal of Life Experiences	2.86	6.14	4.55	.60

The zero-order correlations between the variables included in the study were analyzed. There was no statistically significant correlation between life stressors and successful aging. There was no statistically significant correlation between life stressors and resilience. There was no statistically significant correlation between life stressors and the reappraisal of life experiences. There was no

statistically significant correlation between successful aging and resilience. There was a statistically significant positive correlation between successful aging and the reappraisal of life experiences, with an $r = .11$ and $p < .05$. There was a statistically significant positive correlation between resilience and the reappraisal of life experiences, with an $r = .10$ and $p < .05$ (Table 2).

Table 2. Variables correlations

	1	2	3
Stressors			
Successful-aging	-.04		
Resilience	.00	.07	
Reappraisal of Life Experiences	-.01	.11*	.10*

Note: *. $p < .05$

Hypotheses testing

Although there was no significant correlation between life stressors and successful aging, it is possible that this relationship is significant only under certain conditions, such as when people have low resilience or when they do not assign meaning to life experiences. For this reason, the two proposed moderation relationships within the hypotheses were tested.

To test the hypothesis that the reappraisal of life experiences moderates the relationship between life stressors and successful aging, a hierarchical multiple regression was conducted. Three variables were included as predictors in the regression model: life stressors, the reappraisal of life experiences, and the interaction between the two. The model explained 5% of the variance in successful aging, $p < .001$. Life stressors were a statistically significant predictor, $b = -5.44$, $p < .001$, the reappraisal of life experiences was a statistically significant predictor, $b = -1.79$, $p < .05$, and the interaction between the two was a statistically significant predictor, $b = 1.11$, $p < .001$.

Regarding the relationship between life stressors and successful aging, when the reappraisal of life experiences was high (plus one standard deviation), the relationship between life stressors and successful aging was not statistically significant, $b = .28$, $p > .05$. When the reappraisal of life experiences was average, the relationship between life stressors and successful aging was not statistically significant, $b = -.38$, $p > .05$. When the reappraisal of life experiences was low (minus one standard

deviation), the relationship between life stressors and successful aging was negative and statistically significant, $b = -1.05$, $p < .001$. These results suggest that life stressors people encounter over the course of their lives have a negative effect on aging only in situations where people do not tend to reframe their life experiences.

To test the hypothesis that resilience moderates the relationship between life stressors and successful aging, a hierarchical multiple regression was conducted. Three variables were included as predictors in the regression model: life stressors, resilience, and the interaction between the two. The model explained 4% of the variance in successful aging, $p < .001$. Life stressors were a statistically significant predictor, $b = -4.55$, $p < .001$, resilience was not a statistically significant predictor, $b = -2.02$, $p > .05$, and the interaction between the two was a statistically significant predictor, $b = 1.15$, $p < .001$.

Regarding the relationship between life stressors and successful aging, when resilience was high (plus one standard deviation), the relationship between life stressors and successful aging was not statistically significant, $b = -.03$, $p > .05$. When resilience was average, the relationship between life stressors and successful aging was not statistically significant, $b = -.56$, $p > .05$. When resilience was low (minus one standard deviation), the relationship between life stressors and successful aging was negative and statistically significant, $b = -1.08$, $p < .001$. These results suggest that the life stressors people encounter over the

course of their lives have a negative effect on aging only in situations where people do not have high resilience.

4. DISCUSSION

The objective of the current study was to investigate the moderating roles of the reappraisal of life experiences and resilience in the relationship between life stressors and successful aging. There was no correlation between life stressors and successful aging. This contradicts existing literature, which suggests that life stressors (such as traffic accidents, natural disasters, physical/sexual/emotional abuse, abandonment, incarceration, adoption, divorce, death of loved ones, etc.) have negative emotional, social, and physiological consequences, often long-term (Chartier et al., 2010; Kaufman et al., 2000; Rao et al., 2008). Additionally, existing studies indicate that recent adverse events impact successful aging (Hsu, 2011). There are two possible explanations for this result.

Firstly, participants reported very few stressful events throughout their lives. The lowest reported value was 1 stressful event, the highest was 13 stressful events, and the mean was only 2.25, with a standard deviation of 1.07. Therefore, the lack of adverse events may have prevented the detection of a relationship between life stressors and successful aging.

Another explanation is that the relationship is contingent on certain conditions, such as specific individual differences. As argued, it is possible that the reappraisal of life experiences and resilience moderates the relationship between life stressors and successful aging. As expected, both moderation relationships were supported by the data, meaning that life stressors and successful aging had negative associations only when participants reported a low level of reappraisal life experiences or a low level of resilience. These conclusions align with existing literature, supporting that the reappraisal of traumatic events is associated with fewer posttraumatic stress symptoms and higher levels of posttraumatic growth (Cromer & Smyth, 2010; Park & Ai, 2006). This effect has been replicated in various stressful or traumatic situations (abuse, natural disasters, wars), suggesting that reappraisal reduces posttraumatic stress symptoms and leads to post-traumatic growth (the perception of a better self as a result of going through a negative experience; Cromer & Smyth, 2010; Matos et al., 2021; Park et al., 2012).

Additionally, studies show that resilience is associated with fewer negative consequences of stressful events, such as the death of loved ones, loneliness, poverty, or chronic illnesses (Fontes & Neri, 2015; Resnick et al., 2015; Wu et al., 2017). Our results are also in line with studies indicating that positive cognitive restructuring (perceiving the benefits/positive effects of negative events) is associated with higher resilience (Min et al., 2013), better ability to

manage major negative events, such as natural disasters or the loss of a partner (Ong et al., 2010; Shing et al., 2016).

The present study has practical implications. The results contribute to understanding how interventions can be designed to stimulate subjective successful aging. Interventions aiming to stimulate successful aging can focus on cognitive techniques to help the elderly reinterpret negative events from the past in a more positive light, potentially becoming a protective factor against the negative effects of life events. Secondly, psychologists working with the elderly can implement interventions to enhance their resilience. Cognitive-behavioral interventions can be used to develop more rational or adaptive ways of thinking in challenging situations faced by the elderly or to bring about behavioral changes (more effective methods of handling stressful situations). By promoting positive reinterpretation of events and developing resilience, the elderly are more likely to experience a period of successful aging, extending well-being throughout their lives.

Limitations and Future Directions

Like any other study, the present research has several limitations that could be addressed in future studies. Firstly, the study was cross-sectional, and data were collected at a single time point. Therefore, causal conclusions cannot be confidently drawn. It is possible that the relationships between variables make sense in both directions. The first scenario is the one proposed by the present study, where life stressors have a negative impact on successful aging. On the other hand, the reverse relationship may also make sense. If certain individuals go through an unsuccessful or negative aging process, it is possible that this could change their perspective on the past and previous events. This would imply an opposite effect compared to what is proposed in the present study. Future studies could analyze the proposed relationships longitudinally, with repeated measurements, to verify the direction of the relationship between variables.

Secondly, the sample included individuals who did not report many life stressors, so it may not have captured the effects of these events on successful aging. Future studies could consider selecting a sample of individuals who have experienced more life stressors or traumatic events.

Lastly, life stressors over the course of life were measured retrospectively. Participants may not accurately remember past events or their memories may be distorted by various factors. Future studies could consider more objective measurements of life stressors or even cohort studies spanning the entire life course.

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