Gerotranscendence, Hope, and Coherence in the Face of Life Adversity

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Background and Purpose: Older adults are living longer and becoming more diverse. The current study examined the relationship between traumatic life events, hope, coherence, and successful aging in Black and White older adults with at least one chronic health condition, and the influence of life events on gerotranscendence. **Methods:** Fifty older adults from two senior centers participated. Participants completed the Successful Aging Inventory, Life Events Checklist, Herth Hope Index, and Sense of Coherence Scale. **Results:** Significant correlations were found between successful aging and gerotranscendence (r = .290; p = .048) and hope (r = .585; p = <.001). Simple linear regression found that Successful Aging Index (SAI) scores significantly predicted gerotranscendence (R^2 = .10, F(1, 46) = 5.157, p = .028) and Herth Hope Index scores (R^2 = .36, F(1, 46) = 25.850, p <.001). Higher Sense of Coherence (SoC) and Gerotranscendence Scale scores among those with no firsthand trauma experience suggest that experiencing traumatic events firsthand may adversely affect the aging process. **Implications:** Therefore, exploration of trauma experiences, with mental health referrals as appropriate are clinical implications to consider.

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Longer life expectancies, astronomical healthcare costs, and the rise of chronic diseases are among the many reasons, and it is imperative that older adults age as optimally as they are able. Physiological changes associated with chronic disease can significantly impact the quality of life for older adults, resulting in declining physical and functional status, depression, and loss of independence (Maresova et al., 2019). Many older adults also experience other major life events including interpersonal violence (Woods et al., 2010), disaster (Cherry et al., 2009), life-threatening illness (Smith et al., 2009), loss of a spouse (Hung et al., 2021), and homelessness (Lee et al., 2017), any of which can lead to poor quality of life and potential institutionalization. Yet, there is scant research on the combined effects of chronic disease and life events on successful aging. Many assert that psychological dimensions (Ingrand et al., 2018), self-rated health and life satisfaction (Whitley et al., 2016), and self-rated successful aging (Faber et al., 2001; McLaughlin et al., 2012; Montross et al., 2006; Strawbridge et al., 2002) should also be considered. The purpose of the current study was to validate the theory of successful aging (Flood, 2006) by examining associations between gerotranscendence, hope, and sense of coherence.

While aging represents changes in the form of opportunities and challenges, one's perception of the changes has a major influence on successful aging. Gerotranscendence theory (Tornstam, 1994) explains how perception shapes aging. According to this theory, human development is a lifelong process that continues into old age and, if optimized, results in new perspectives. Defined as "a shift in meta-perspective, from a materialistic and rational view of the world to a more cosmic and transcendent one, normally accompanied by an increase in life satisfaction" (Tornstam, 1994, p. 203), experiencing gerotranscendence is a positive kind of aging involving redefinition of the self and relationships to others and is a precursor to successful aging, as well as a new understanding of fundamental existential questions. While aging alone may stimulate experiencing gerotranscendence in some mature adults, it is also stimulated by life experiences, hardships, challenges, and loss: overcoming hardship and adversity may contribute to gerotranscending (Bratton, 2022). Adequately coping with adversity could foster gerotranscendence and better position one for successful aging. It is plausible that gerotranscending is a defining mechanistic feature of resilience inherent in successful aging.

THEORETICAL FRAMEWORK

Successful aging is an individual's perception of favorable adaptation to the cumulative physiological and functional alterations associated with the passage of time while experiencing spiritual connectedness and a sense of meaning and

purpose in life (Flood, 2002), as well as managing the impact of traumatic and non-violent life events. From this conceptual definition, the theory of successful aging was developed. The older adult's self-appraisal of aging is emphasized while accounting for physical/functional status and existential features such as purpose and meaning in life. In this study, we sought to explore older adults' perspectives on trauma, hope, sense of coherence, and successful aging, to increase our understanding of the interrelationships among these variables.

METHODS

This study employed an exploratory cross-sectional (multiple methods) survey design. Fifty older adults were recruited from two rural southeastern North Carolina senior centers. The combined capacity of the centers is 120. A desired sample size of 97 was estimated using the formula provided by Krejcie and Morgan (1970) with the level of significance (α) and precision set at 5%. However, participants were limited due to the geographic location of the centers, as well as cost and time considerations. Therefore, recruiting a larger sample was not feasible. Previous research (see, e.g., Rajani & Jawaid, 2015) had found associations among a range of stressful events and a rise in gerotranscendence. Accordingly, we sought a sample size, 50, consistent with those in previous literature on these study variables. This study employed an exploratory cross-sectional (multiple methods) survey design.

Data collection occurred during four visits to the senior centers over a 2-month period in the spring. The researchers visited the sites, conducting recruitment and data collection in person. The following inclusion criteria were used, such as age 60 or older and absence of cognitive impairment, as determined by the Mini-Cog (Borson et al., 2000). Exclusion criteria were as follows: under age 60, cognitive impairment, or inability to speak English. The study was approved by the University of North Carolina at Charlotte Institutional Review Board (IRBIS 17–0144), and all participants provided written informed consent.

Data collection was done onsite directly after obtaining informed consent. On average, it took participants 10–15 minutes to complete the written questionnaires. A few (no more than six) participants may have taken slightly longer (we did not time them) than this but probably no longer than 20 minutes. No one required assistance with reading or writing, nor did participants have questions about any test items. No one appeared to experience difficulty with completion, as nearly all forms were fully completed in entirety (three participants omitted up to two items, presumably by accident). Upon completion, participants walked to the table where the researchers were seated, placed their forms in a box, and received a $10.00 gift card for a local grocery store.

Measures

Demographic information and the presence of common chronic health conditions were assessed. Life events were measured using the Life Events Checklist

(LEC) standard self-report. The 17-item LEC (Gray et al., 2004) assesses for multiple levels of exposure to potentially traumatic events (PTE) using a 5-point scale: 1 = happened to me, 2 = witnessed it, 3 = learned about it, 4 = not sure, and 5 = does not apply. The LEC demonstrated adequate psychometric properties as a standalone assessment of traumatic exposure and has generally adequate psychometric properties (convergent validity; Weathers et al., 2013). Respondents indicate varying levels of exposure to each type of event; results are summed for a total score, with a possible range of 0–68. One commonly used way to score the LEC is to sum all endorsed items, from all exposure types to generate a total score for each scale (happened to me, witnessed it, learned about it) (minimum/maximum = 0/17) and a total score (minimum/maximum 0/51; Weis et al., 2022). "Happened to me" was assigned four points: "witnessed it," 3; "learned about it," 2; "not sure," 1; and "doesn't apply," 0. Therefore, total LEC scores could range from 0 to 68.

Hope has been identified as an important determinant for well-being (Nayeri et al., 2020). Similarly, a strong SOC is associated with good health, especially mental health and quality of life (indicators of well-being) in different groups and populations (Moksnes, 2021). In this study, well-being was assessed using the Sense of Coherence Scale (SoC; Antonovsky, 1993) and the Herth Hope Index (HHI; Herth, 1992). The SoC is a 29-item, 7-point semantic differential scale comprised of three subscales: (a) comprehensibility, (b) manageability, and (c) meaningfulness. The SoC scale has acceptable face validity, moderate consensual validity, favorable internal consistency (Cronbach's alpha (α) ranges from 0.70 to 0.95), and limited reports but suitable test–retest reliability (Eriksson & Lindström, 2005). Items are summed for a total score, with possible range of 29–232.

The 12-item HHI measures various dimensions of hope using a 4-point Likert scale where 0 = strongly disagree to 3 = strongly agree. Items are summed for a total score, with possible range of 0–36. The HHI is one of the most widely used measures of hope. Acceptable convergent and discriminant validity have been reported (Herth, 1992); test–retest reliability across multiple studies ranges from .81 to .91 (Herth, 1992; Wahl et al., 2004). Successful aging was assessed using the Successful Aging Inventory (SAI), and the Gerotranscendence Scale (GS). The SAI (Troutman et al., 2011) is a 20-item, 4-point Likert format instrument composed of statements representing themes that have appeared repeatedly and for which there is recurring literature support related to successful aging. Items are scored 0–4 and summed for total score; higher scores correspond to more frequent/stronger responses. The total possible range is 0–80. There are 5 scale dimensions: intrapsychic and functional performance coping mechanisms, existential well-being, introspective gerotranscendence, spirituality, and retrospective gerotranscendence (Troutman et al., 2011). The SAI has desirable validity (Troutman et al., 2011; Westman et al., 2013) and internal consistency evidenced by Cronbach's α ranging from 0.82 to 0.91.

The GS (Tornstam, 1994) assesses cosmic and ego transcendence with six and four items, respectively. It has 10 statements with which older adults are asked to agree or disagree. Items are summed for a total score, with a possible range of 0–10. Cronbach's α of 0.75 and 0.81 have been reported for the two subscales (Tornstam, 2005), as well as acceptable content validity (content validity index 0.90; Davis, 1992).

Data Analysis

All analyses were conducted in SPSS v28. Descriptive statistics and univariate and bivariate were calculated. A *p*-value of .05 denoted statistical significance.

RESULTS

Descriptive statistical analyses were used to characterize the sample which had a mean age of 70.7 (*SD* 7.4) ranging from 50 to 81 years (three participants verbalized being 60 or older during screening but then provided a written response of an age under this; they were 50, 52, and 56 years old). Most participants were female (*n* = 41; 82%) and White (*n* = 37; 74%). Over one-quarter (*n* = 13; 26%) identified as Black/African Americans. Self-rated aging responses were normally distributed. More than 80% of participants had a 12th grade education or higher. Most respondents (*n* = 36; 72%) indicated they were physically active. Over 60% (*n* = 33) were without a current partner or spouse, and 94% (*n* = 47) reported a modest income less than the state median of $56,642 per year (U.S. Census Bureau, 2020).

To further describe health and aging of the sample, we assessed for the presence of 14 chronic health conditions common in older adulthood (Centers for Disease Control and Prevention, 2020, 2022) to gain understanding of participants' general health. The most common diagnosis was hypertension, present in 54% (*n* = 27) individuals. Arthritis (*n* = 19, 38%), vision problems (*n* = 17, 34%), chronic pain (*n* = 13, 26%), and difficulty with mobility (*n* = 13, 24%) were the next most frequent diagnoses. Nearly one-quarter of participants reported depression (24%) or anxiety (22%). Eight (16% for each diagnosis) participants reported having diabetes, sleep problems, or heart problems. Participants were asked to rate their present health status as excellent, very good, good, fair, or poor. Of these options, 3 (6%) believed their health to be excellent; 30 (60%) felt it was very good; 13 (26%), good; 3 (6%) indicated fair; and 1 (2%) believed their health was poor. Participants were also asked to rate their aging at present, as great/successful, good/well, average/typical, or poor/fair. Only four (8%) felt they were aging great/successfully, while 26 (53%) believed they were aging good/well, 17 (34%) said average/typical, and three (6%) felt they were aging poorly/fair.

Next, descriptive analyses (Table 1) were conducted for key study variables. There was moderate skewness (–.638) for the GS and SAI (–.349) and

high skewness (1.361) for SoC and (–2.239) HHI (Heidel, 2022). To examine interrelationships among key study variables, correlations were computed to identify associations among the HHI, SoC Scale, GS, and SAI (Table 2). There were significant correlations between successful aging and gerotranscendence ($r = .290$; $p = .048$) and successful aging and hope ($r = .585$; $p = < .001$).

These findings were further explored using simple linear regression to predict participants' HHI scores using successful aging scores as the predictor. Successful aging scores significantly predicted HHI scores ($\beta = .319$, $p < .001$). The overall regression was statistically significant ($R^2 = .36$, $F(1, 46) = 25.850$, $p < .001$) and showed a moderate, positive correlation between the two scores.

Based on prior literature, we anticipated that hardships (e.g., LEC) may stimulate gerotranscendence, which could consequently lead to successful aging. Stressful life experiences, hardships, challenges, and loss are suggested to stimulate a shift toward and increase the likelihood of gerotranscending (Rajani & Jawaid, 2015; Tornstam, 1997). We conducted multiple χ^2 tests of independence to determine if any significant association existed between stressful life events and gerotranscendence responses. Findings revealed associations between experiencing a traffic accident and experiencing a closeness with persons not present ($\chi^2(1) = 5.6$, $p = .018$), experiencing some other stressful event and feeling more connected with past and future generations ($\chi^2(1) = 4.5$, $p = .034$), experiencing an unwanted sexual experience and more positivity with inner thoughts ($\chi^2(1) = 4.4$, $p = .036$), and experiencing a life-threatening injury, taking oneself less seriously and feeling connected with past/future generations ($\chi^2(1) = 4.97$, $p = .026$) and ($\chi^2(1) = 5.9$, $p = .015$), respectively.

A linear regression model was constructed, using total LEC scores entered as the predictor variable and GS scores as the dependent variable. Total LEC scores were not a significant predictor of gerotranscendence ($p < .193$). However, total LEC scores reflect the sum of all LEC subscales: (a) firsthand experience, (b) observation, and/or (c) hearing about a traumatic event. Therefore, to further examine the potential impact of trauma on successful aging, respondents were collapsed into two categories: those who had firsthand trauma experiences and those who did not. An array of independent samples *t* tests was conducted to examine potential differences between groups based on results from the SoC, GS , HHI, and SAI measures and firsthand trauma experiences. Only groups with a sample size of 15 or more were included in the analysis. There was a significant difference in SoC scores between participants who experienced a natural disaster ($M = 122.2$, $SD = 12.82$) and those who had not ($M = 126.86$, $SD = 20.43$); $t(48) = .988$, $p = .019$. Participants who had not experienced this trauma or life event produced higher SoC scores.

Next, a significant difference was found between the GS scores of participants who experienced human suffering ($M = 6.75$, $SD = 1.571$) and those who had not ($M = 7.07$, $SD = 2.18$); $t(44) = .513$, $p = .037$. Results revealed that participants who had not experienced human suffering produced higher GS scores. An additional category, "Experienced some other stressful event," revealed a

TABLE 1. Descriptive Statistics for Key Study Scales

Scale	M	*SD*	Range
Gerotranscendence Scale	6.88	2.18	0–10
Hearth Hope Index	27.82	5.84	0–36
Sense of Coherence Scale	124.3	16.40	0–232
Successful Aging Inventory	62.73	8.38	0–80
Life Events Checklist			0–68
Subscales			
Trauma happened to me	4.1	2.90	0–11
Witnessed trauma	.94	1.13	0–4
Learned about trauma	2.36	3.27	0–13
Not sure about trauma	.36	.88	0–4
Trauma doesn't apply	9.24	4.65	1–17

Note. *SD = standard deviation.*

TABLE 2. Correlations Among Key Study Variables

		Successful aging	GeroTrans	Sense of Coherence	Hearth Hope Index
Successful Aging	Pearson Correlation	1	.290[a]	–.013	.585[b]
	Sig. (two-tailed)	–	.048	.932	<.001
GeroTrans Total	Pearson Correlation	.290[a]	1	.218	.241
	Sig. (two-tailed)	.048	–	.142	.107
Sense of Coherence Total	Pearson Correlation	–.013	.218	1	.142
	Sig. (two-tailed)	.932	.142	–	.337
Hearth Hope Index Total	Pearson Correlation	.585[b]	.241	.142	1
	Sig. (two-tailed)	<.001	.107	.337	

[a]Correlation is significant at the 0.05 level (two-tailed).
[b]Correlation is significant at the 0.01 level (two-tailed).

significant difference in SoC scores between participants who experienced an unnamed traumatic event (M = 120.90, SD = 13.54) and those that had not (M =129.61, SD = 19.16); t (45) =1.82, p = .037.

Those who had not experienced some other stressful events had higher SoC scores.

Based on study findings of higher SoC and GS scores among those with no firsthand trauma experience suggest that experiencing traumatic events firsthand may adversely impact well-being and the aging process. The only exception to this finding was among participants who reported experiencing sexual

assault. SoC scores were significantly higher in those who experienced sexual assault (M = 128.70, SD = 20.71) compared to those who had not (M = 122.84, SD = 14.84); t(46) = −1.020, p = .05.

Discussion

This study sought to increase understanding of life events and gerotranscendence in older adults with chronic conditions and explore relationships between life events, successful aging, hope, and gerotranscendence, with the hope of validating the theory of successful aging (Flood, 2006). The sample was comparable to the typical U.S. older adult in terms of demographic and general health characteristics. Hypertension was the most frequently reported chronic health condition (54%, n = 27). According to the CDC (2020), the age-adjusted prevalence of hypertension in the United States among those 60 and older is 74.5%. Arthritis and orthopedic conditions were the second most reported chronic conditions (38%, n = 19), followed by visual impairment (34%, n = 17). Hypertension, arthritis/orthopedic conditions, and vision impairment have all been associated with lower quality of life (Ataoğlu et al., 2018; Khorrami-Nejad et al., 2016; Trevisol et al., 2012). Consequently, it is conceivable that the presence of chronic disease could alter perceptions of hope and successful aging, one's sense of coherence, or ability to achieve gerotranscendence.

Quality of life is a broad, multidimensional concept that encompasses more than health. Therefore, future research should explore perceptions of higher-order quality of life indicators such as social relationships, belonging, emotional well-being, and their relationship to successful aging and gerotranscendence. Additionally, in the current study, the number of reported health conditions was not significantly associated with any study variables, suggesting a divergence in subjective and objective health status. This finding warrants additional analysis of the relationship between subjective and objective health status, perceptions of successful aging, and gerotranscendence.

Participants in the current study tended to score above the median possible score on the GS. Mean GS scores exceeded means reported in other studies in the literature. For example, Wang et al. (2015) reported a total mean score of 2.39 ± .46 in 772 community-dwelling Chinese older adults, 45.6% of whom reported having unspecified "chronic diseases." Randolph (2012) reported a mean gerotranscendence score of 7.96 (SD 2.28) in a sample of 46 older adults with an average age of 85 years residing in a continuing care retirement community; however, neither study reported on participants' health status. It is plausible that presence, severity, and number of chronic conditions influence gerotranscendence. Therefore, these additional measures should be included in future studies.

Read et al. (2014) examined gerotranscendence longitudinally, assessing at baseline and 3 years later, to explore whether negative life events increased levels of gerotranscendence. They focused on *cosmic* transcendence, a subscale, wherein one experiences an increased sense of unity with the universe, a redefinition of the perception of time, space, life, and death, and a growing

affinity with past and future generations. Findings suggested that a higher number of negative life events, especially events other than the deaths of others, were related to increased gerotranscendence, whereas having experienced no negative life events was associated with decreased cosmic transcendence. Based on these findings, participants in the current study who had rather limited experiences with trauma should have had lower GS scores; however, they did not. Moreover, a significant association was found between gerotranscendence and firsthand trauma experiences, specifically that the absence of firsthand trauma produced higher gerotranscendence scores.

These findings call into question the nature and extent of participants' introspection and self-awareness, warranting more in-depth exploration of specific traumatic events on gerotranscendence scores. Future exploration with greater detail of the nature and timing of traumatic experiences could provide further insight into the nuances of trauma as related to gerotranscendence, which appear to be situation-specific.

Antonovsky's work focused on the question of why some people maintain a positive attitude and good health despite having hardships and stress in their lives, while others do not. The SOC scale assesses how people view life and seeks to identify how people might use their resources to overcome resistance and maintain and develop their health (Riopel, 2020).

Antonovsky theorized that the sense of coherence has three components: comprehensibility, manageability, and meaningfulness. Specifically, comprehensibility refers to the belief that things happen in an orderly and predictable fashion and a sense that one can understand events in one's life and reasonably predict what will happen in the future, whereas manageability is the belief that one has the skills or ability, the support, the help, or the resources necessary to take care of things and that things are manageable and within one's control (Antonovsky, 1987). Meaningfulness describes a belief that things in life are interesting and a source of satisfaction, that things are worthwhile, and that there is a good reason or purpose to care about what happens (Antonovsky, 1987).

A systematic review and analysis of the reliability and validity of Antonovsky's SoC scale included 124 studies reporting means ranging from 100.5 (*SD* 28.5) to 164.5 (*SD* 17.10; Eriksson & Lindström, 2005). Our sample mean is within the range of reported norms; however, within the current sample, findings are inconsistent with other studies, which have shown strong associations between SoC and poor health (Eindor-Abarbanel et al., 2021) as well as trauma (Veronese et al., 2022). Higher SoC among those who had experienced sexual assault also contradicts prior studies. For example, Renck and Rahm (2005) studied 81 women with a history of childhood sexual abuse and found low SOC scores among those who experienced abuse for more than 10 years and an even lower SOC score in participants who could not recall the years of duration. Similarly, a study conducted by Simmons and Swahnberg (2021) found polyvictimization, including sexual assault, was associated with lower SoC. It is possible that the

current study sample's limited experience with trauma may have had restricted opportunities to experience personal growth and meaningfulness-making associated with or resultant from trauma. Alternatively, since the SoC relies on self-reporting, scores could reflect social desirability bias, which is the tendency for respondents to provide answers that will be viewed favorably by others.

Regression analysis revealed that successful aging was a significant predictor of hope (β = .319). Hope is described as a thinking process whereby one has a sense of agency and pathways for goals (Snyder et al., 1997a,b), a mutually derived sense of successful agency (goal-directed determination) and pathways (preparation of ways to meet goals; Snyder et al., 1991), denoting future-oriented thinking. Previous research (Waldman-Levi et al., 2020) found hope to be predictive of well-being in dependent older adults: those "having moderate medical conditions, including progressive and/or previous moderate neurological or psychiatric disease; living in senior facilities or at home under the care of a personal caregiver; and being dependent or semi-dependent in ADL" (p. 254). However, our participants were only asked to report if they had one or more chronic common health conditions. The current study did not evaluate the severity of conditions or how they affected participants' daily lives, and the dependence level was not considered. Therefore, future studies should include scales to measure the impact illness severity and functional independence on hope and successful aging.

The theory of successful aging (Flood, 2006) proposes that one's intrapsychic features (including creativity and sense of personal control) influence choices and decision-making, along with the extent of one's spiritualty and likelihood of gerotranscending, which contribute to experiencing meaning and purpose in life, and successful aging. Our findings support these proposed relationships. Successful aging predicted hope, and some stressful events/trauma influenced likelihood of experiencing gerotranscendence. Participants who had not experienced certain trauma or life events having higher SoC scores as compared to those who had experienced trauma evoke questions for future research.

Clinical Implications. There are a few clinical implications from this study, which can easily be implemented. Based on our current results, these include careful exploration of trauma experiences, even if in the distant past, and appropriate mental health referrals. Though many older adults do not meet full criteria for a PTSD diagnosis, they may still exhibit some symptoms; percentages of older adults with subclinical levels of PTSD symptoms range from 7% to 15% (Glaesmer et al., 2010; Schnurr et al., 2002). However, older adults can experience substantial levels of posttraumatic growth, from traumas occurring later in life or across the lifespan (Kadri et al., 2022). Adaptation and resilience developed over a lifetime can provide a rich reservoir of coping resources upon which to draw (Kaiser et al., 2022).

There are multiple versions of tools that screen for adverse childhood events. Any of these might be administered to uncover past traumas that heighten

risk, and referrals can then be made for mental health evaluation and treatment. Screening for depression and anxiety can be done with easily accessible, established tools available online. Nurses can also take time to explore with older adults activities they enjoy and find meaningful and encourage these. Reminiscence might also be therapeutic for older adults. This can be done in semi-structured group activities or, more informally, with friends and old photos. Investing a few minutes extra during care of older adults can reveal opportunities for important interventions.

Limitations. Several study limitations exist; one of these is that the convenience sample was predominantly White. Lack of diversity may threaten validity and generalizability of these findings. Study replication with a non-White sample would likely yield informative findings, as stark racial/ethnic disparities persist, which impact the experience of aging (Franckhauser, 2022) and response to trauma (Tull, 2021).

REFERENCES

Antonovsky, A. (1987). *Unraveling the mystery of health - how people manage stress and stay well*. Jossey-Bass Publishers. https://doi.org/10.1017/S0714980800007133

Antonovsky, A. (1993). The structure and properties of the sense of coherence scale. *Social Science & Medicine*, *36*(6), 725–733. https://doi.org/10.1016/0277-9536(93)90033-Z

Ataoğlu, S., Ankaralı, H., Ankaralı, S., Ataoğlu, B. B., & Ölmez, S. B. (2018). Quality of life in fibromyalgia, osteoarthritis, and rheumatoid arthritis patients: Comparison of different scales. *The Egyptian Rheumatologist*, *40*(3), 203–208. https://doi.org/10.1016/j.ejr.2017.09.007

Borson, S., Scanlan, J., Brush, M., Vitaliano, P., & Dokmak, A. (2000). The mini-cog: A cognitive 'vital signs' measure for dementia screening in multi-lingual elderly. *International Journal of Geriatric Psychiatry*, *15*(11), 1021–1027. https://doi.org/10.1002/1099-1166(200011)15:11<1021::aid-gps234>3.0.co;2-6

Bratton, V. (2022). Gerotranscendence: A phenomenological study of aging among community- dwelling elders in the United States. Unpublished doctoral dissertation. Cappella University. https://www.proquest.com/docview/2643974661?pq-origsite=gscholar&fromopenview=true

Centers for Disease Control and Prevention. (2020). Hypertension prevalence among adults aged 18 and over: United States, 2017–2018. https://www.cdc.gov/nchs/products/databriefs/db364.htm#:~:text=The%20prevalence%20of%20hypertension%20increased,hypertension%20by%20age%20was%20observed

Centers for Disease Control and Prevention. (2022). About chronic diseases. https://www.cdc.gov/chronicdisease/about/index.htm

Cherry, K. E., Silva, J. L., & Galea, S. (2009). Natural disasters and the oldest-old: A psychological perspective on coping and health in late life. In K. E. Cherry (Ed.), *Lifespan perspectives on natural disasters: Coping with Katrina, Rita, and other storms* (pp. 171–193). Springer Science. https://doi.org/10.1007/978-14419-0393-8_9

Davis, L. L. (1992). Instrument review: Getting the most from a panel of experts. *Applied Nursing Research*, *5*(4), 194–197. https://doi.org/10.1016/S0897-1897(05)80008-4

Eindor-Abarbanel, A., Naftali, T., Ruhimovich, N., Bar-Gil Shitrit, A., Sklerovsky-Benjaminov, F., Konikoff, F., Matalon, S., Shirin, H., Milgrom, Y., Ziv-Baran, T., & Broide, E. (2021). Important relation between self-efficacy, sense of coherence, illness perceptions, depression, and anxiety in patients with inflammatory bowel disease. *Frontline Gastroenterology*, *12*(7), 601–607. https://doi.org/10.1136/flgastro-2020-101412

Eriksson, M., & Lindström, B. (2005). Validity of antonovsky's sense of coherence scale: A systematic review. *Journal of Epidemiology and Community Health*, *59*(6), 460–466. https://doi.org/10.1136/jech.2003.018085

Faber, M., Wiel, A., Exel, E., Gussekloo, J., Lagaay, A. M., Dongen, E., & Westendorp, R. G. (2001). Successful aging in the oldest old: Who can be characterized as successfully aged. *Archives of Internal Medicine*, *161*, 2694–2700. https://doi.org/10.1001/archinte.161.22.2694

Flood, M. (2002). Successful aging: A concept analysis. *Journal of Theory Construction & Testing*, *6*(2), 105–108. https://doi.org/10.1016/j.jaging.2014.08.009

Flood, M. (2006). A mid-range theory of successful aging. *Journal of Theory Construction & Testing*, *9*(2), 35–39.

Franckhauser, M. (2022). *Racial disparities in agin*. https://www.jsi.com/racial-disparities-in-aging

Glaesmer, H., Gunzelmann, T., Braehler, E., Forstmeier, S., & Maercker, A. (2010). Traumatic experiences and post-traumatic stress disorder among elderly Germans: Results of a representative population-based survey. *International Psychogeriatrics*, *22*(4), 661–670. https://doi.org/10.1017/S104161021000027X

Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric properties of the life events checklist. *Assessment*, *11*(4), 330–341. https://doi.org/10.1177/1073191104269954

Heidel, E. (2022). Statistics: Logarithmic transformations. https://www.scalestatistics.com/logarithmic-transformations.html

Herth, K. (1992). Abbreviated instrument to measure hope: Development and psychometric evaluation. *Journal of Advanced Nursing*, *17*(10), 1251–1259. https://doi.org/10.1111/j.1365-2648.1992.tb01843.x

Hung, Y.-C., Chen, Y.-H., Lee, M.-C., & Yeh, C.-J. (2021). Effect of spousal loss on depression in older adults: Impacts of time passing, living arrangement, and spouse's health status before death. *International Journal of Environmental Research and Public Health*, *18*(24), 13032. https://doi.org/10.3390/ijerph182413032

Ingrand, I., Paccalin, M., Liuu, E., Gil, R., & Ingrand, P. (2018). Positive perception of aging is a key predictor of quality of life in aging people. *PloS One*, *13*(10), e0204044. https://doi.org/10.1371/journal.pone.0204044

Kadri, A., Gracey, F., & Leddy, A. (2022). What factors are associated with posttraumatic growth in older adults? A systematic review. *Clinical Gerontologist*, 1–18. https://doi.org/10.1080/07317115.2022.2034200

Kaiser, A., Wachen, J., Potter, C., Moye, J., & Davidson, E. (2022). Posttraumatic stress symptoms among older adults: A review. *U.S department of veteran's affairs national center for PTSD*. https://www.ptsd.va.gov/professional/treat/specific/symptoms_older_adults.asp

Khorrami-Nejad, M., Sarabandi, A., Akbari, M., & Askarizadeh, F. (2016). The impact of visual impairment on quality of life. *Medical Hypothesis and Discovery and Innovation in Ophthalmology*, *5*(3), 96–103.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607–610. https://doi.org/10.1177/001316447003000308

Lee, C. M., Mangurian, C., Tieu, L., Ponath, C., Guzman, D., & Kushel, M. (2017). Childhood adversities associated with poor adult mental health outcomes in older homeless adults: Results from the hope home study. *The American Journal of Geriatric Psychiatry*, *25*(2), 107–117. https://doi.org/10.1016/j.jagp.2016.07.019

Maresova, P., Javanmardi, E., Barakovic, S., Barakovic Husic, J., Tomsone, S., Krejcar, O., & Kuca, K. (2019). Consequences of chronic diseases and other limitations associated with old age - A scoping review. *BMC Public Health*, *19*(1), 1431. https://doi.org/10.1186/s12889-019-7762-5

McLaughlin, S. J., Jette, A. M., & Connell, C. M. (2012). An examination of healthy aging across a conceptual continuum: Prevalence estimates, demographic patterns, and validity. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, *67*(7), 783–789. https://doi.org/10.1093/gerona/glr234

Moksnes, U. (2021). Sense of coherence, Ch. 4. In G. Haugan & M. Eriksson (Eds.), *Health promotion in health care – vital theories and research*. Springer. https://doi.org/10.1007/978-3-030-63135-2

Montross, L. P., Depp, C., Daly, J., Reichstadt, J., Golshan, S., Moore, D., Sitzer, D., & Jeste, D. V. (2006). Correlates of self-rated successful aging among community-dwelling older adults. *The American Journal of Geriatric Psychiatry*, *14*(1), 43–51. https://doi.org/10.1097/01.JGP.0000192489.43179.31

Nayeri, N. D., Goudarzian, A. H., Herth, K., Naghavi, N., Nia, H. S., Yaghoobzadeh, A., Sharif, S. P., & Allen, K.-A. (2020). Construct validity of the herth hope index: A systematic review. *International Journal of Health Sciences*, *14*(5), 50–57.

Rajani, F., & Jawaid, H. (2015). Theory of gerotranscendence: An analysis. *European Psychiatry*, *30*(1), 1467. https://doi.org/10.1016/S0924-9338(15)31138-X

Randolph, W. (2012). *Relationships between gerotranscendence and life satisfaction: Implications for aging well and dying better* [Doctoral thesis]. United Theological Seminary.

Read, S., Braam, A. W., Lyyra, T.-M., & Deeg, D. J. H. (2014). Do negative life events promote gerotranscendence in the second half of life. *Aging & Mental Health*, *18*(1), 117–124. https://doi.org/10.1080/13607863.2013.814101

Renck, B., & Rahm, G. (2005). Sense of coherence in women with a history of childhood sexual abuse. *International Journal of Social Welfare*, *14*(2), 127–133. https://doi.org/10.1111/j.1369-6866.2005.00349.x

Riopel, J. (2020). What does it mean to have a sense of coherence? (+scale). PositivePsychology.com.https://positivepsychology.com/sense-of-coherence-scale/

Schnurr, P. P., Spiro III, A., Vielhauer, M. J., Findler, M. N., & Hamblen, J. L. (2002). Trauma in the lives of older men: Findings from the normative aging study. *Journal of Clinical Geropsychology*, *8*(3), 175–187. https://doi.org/10.1023/A:1015992110544

Simmons, J., & Swahnberg, K. (2021). Lifetime prevalence of polyvictimization among older adults in Sweden, associations with ill-heath, and the mediating effect of sense of coherence. *BMC Geriatrics*, *21*(1), 129. https://doi.org/10.1186/s12877-021-02074-4

Smith, B. D., Smith, G. L., Hurria, A., Hortobagyi, G. N., & Buchholz, T. A. (2009). Future of cancer incidence in the United States: Burden upon an aging, changing nation. *Journal of Clinical Oncology*, *27*(17), 2758–2765. https://doi.org/10.1200/JCO.2008.20.8983

Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., Danovsky, M., Highberger, L., Rubinstein, H., & Stahl, K. J. (1997a). The development and validation of the children's hope scale. *Journal of Pediatric Psychology*, *22*(3), 399–421. https://doi.org/10.1093/jpepsy/22.3.399

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, *60*(4), 570–585. https://doi.org/10.1037//0022-3514.60.4.570

Snyder, C., McDermott, D., Cook, W., & Rapoff, M. (1997b). *Hope for the journey: Helping children through the good times and the bad*. Westview/Basic Books.

Strawbridge, W. J., Wallhagen, M. I., & Cohen, R. D. (2002). Successful aging and well-being: Self-rated compared with Rowe and Kahn. *The Gerontologist*, *42*(6), 727–733. https://doi.org/10.1093/geront/42.6.727

Tornstam, L. (1994). Gerotranscendence – A theoretical and empirical exploration. In L. E. Thomas & S. A. Eisenhandler (Eds.), *Aging and the religious dimension* (pp. 203–225). Greenwood Publishing Group. https://doi.org/10.5040/9798216186984

Tornstam, L. (1997). Gerotranscendence: The contemplative dimension of aging. *Journal of Aging Studies*, *11*(2), 143–154. https://doi.org/10.1016/S0890-4065(97)90018-9

Tornstam, L. (2005). *Gerotranscendence: A developmental theory of positive aging*. Springer Publishing Company.

Trevisol, D. J., Moreira, L. B., Fuchs, F. D., & Fuchs, S. C. (2012). Health-related quality of life is worse Inindividuals with hypertension under drug treatment: Results of population-based study. *Journal of Human Hypertension*, *26*(6), 374–380. https://doi.org/10.1038/jhh.2011.48

Troutman, M., Nies, M. A., Small, S., & Bates, A. (2011). The development and testing of an instrument to measure successful aging. *Research in Gerontological Nursing*, *4*(3), 221–232. https://doi.org/10.3928/19404921-20110106-02

Tull, M. (2021). Are some racial groups more likely to develop PTSD? How black and Asian Americans are vulnerable. *Verywellmind*. https://www.verywellmind.com/ethnic-and-racial-differences-in-ptsd-2797434

U.S. Census Bureau. (2020). Census Table S1901, Income in the Past 12 Months (in 2020 Inflation-Adjusted Dollars) 2020 American Community Survey 5-Year Estimates for North Carolina. https://data.census.gov/table/ACSST5Y2020.S1901?g=160XX00US4805000&tid=ACSST5Y2020.S1901

Veronese, G., Mahamid, F. A., & Bdier, D. (2022). Subjective well-being, sense of coherence, and posttraumatic growth mediate the association between COVID-19 stress, trauma, and burnout among palestinian health-care providers. *The American Journal of Orthopsychiatry*, *92*(3), 291–301. https://doi.org/10.1037/ort0000606

Wahl, A. K., Rustøen, T., Lerdal, A., Hanestad, B. R., Knudsen, O., Jr, & Moum, T. (2004). The Norwegian version of the Herth hope index (HHI-N): A psychometric study. *Palliative & Supportive Care*, *2*(3), 255–263. https://doi.org/10.1017/s1478951504040349

Waldman-Levi, A., Bar-Haim Erez, A., Katz, N., & Stancanelli, J. M. (2020). Emotional functioning and sense of hope as contributors to healthy aging. *OTJR*, *40*(4), 253–260. https://doi.org/10.1177/1539449220920728

Wang, K., Duan, G., Jia, H., Xu, E., Chen, X., & Xie, H. (2015). The level and influencing factors of gerotranscendence in community-dwelling older adults.International. *International Journal of Nursing Sciences*, *2*(2), 123–127. https://doi.org/10.1016/j.ijnss.2015.04.001

Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013). *The life events checklist for DSM-5 (LEC-5).* Instrument available from the National center for PTSD at www.Ptsd.Va.Gov.

Weis, C. N., Webb, E. K., Stevens, S. K., Larson, C. L., & deRoon-Cassini, T. A. (2022). Scoring the life events checklist: Comparison of three scoring methods. *Psychological Trauma*, *14*(4), 714–720. https://doi.org/10.1037/tra0001049

Westman, M., Troutman-Jordan, M., & Nies, M. (2013). Successful aging among older adults in assisted living communities: Piloting the use of the successful aging inventory. *Journal of Nursing Scholarship*, *45*(3), 238–246. https://doi.org/10.1111/jnu.12027

Whitley, E., Popham, F., & Benzeval, M. (2016). Comparison of the Rowe–Kahn model of successful aging with self-rated health and life satisfaction: The west of Scotland prospective cohort study. *The Gerontologist*, *56*(6), 1082–1092. https://doi.org/10.1093/geront/gnv054

Woods, S., Kozachik, S., & Hall, R. (2010). Predicting sleep quality in women experiencing intimate partner violence: Unique contributions of PTSD symptom clusters, depression, and physical health. *Journal of Trauma Stress*, *23*(1), 141–150. https://doi.org/10.1002/jts.20495

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