Adultspan Journal

Volume 24
Issue 1 *Spring 2025*

Article 4

2025

Factors Affecting the Joy of Life in Old Age: A Scale Development Study

Yalçın KARAGÖZ
Duzce University, yalcinkaragoz@duzce.edu.tr

Yusuf KARAŞİN
Istanbul Gedik University, yusuf.karasin@gedik.edu.tr

Mustafa filiz
Artvin Coruh University, Turkey, mustafa2108@artvin.edu.tr

Mehmet Ateş
Manisa Celal Bayar University, atesmehmet1114@gmail.com

Recommended Citation

KARAGÖZ, Yalçın; KARAŞİN, Yusuf; filiz, Mustafa; and Ateş, Mehmet (2025) "Factors Affecting the Joy of Life in Old Age: A Scale Development Study," *Adultspan Journal*: Vol. 24: Iss. 1, Article 4.
DOI: https://doi.org/10.33470/2161-0029.1196
Available at: https://mds.marshall.edu/adsp/vol24/iss1/4

Factors Affecting the Joy of Life in Old Age: A Scale Development Study

Abstract

This study aims to introduce a measurement tool into the literature that can reveal the factors affecting the joy of life in older adulthood. Participants included 266 individuals aged 55 and over living in Izmir, Turkey. The process of developing the scale includes the following stages: problem identification, item pool creation, expert opinion, form shaping, pilot application, and finalizing the scale. The exploratory factor analysis revealed that the scale consists of 6 different dimensions, and the variance explained by these dimensions was found to be 65.184%. The acceptable values for the scale's fit indicators are as follows: χ^2/df0.90, IFI > 0.90, TLI > 0.90, CFI > 0.90, RMSEA < 0.08, and SRMR < 0.08. These values indicate an appropriate fit between the model and the data set. It was determined that the scale of factors affecting the joy of life in older adulthood is valid and reliable. The scale consists of six dimensions and 23 items.

Keywords

old age, joy of life, scale development, psychological collapse, adaptation in aging.

Cover Page Footnote

Editorial Office Adultspan Journal Dear Editor, I am writing to submit my manuscript titled "Factors Affecting the Joy of Life in Old Age: A Scale Development Study" for consideration in the Adultspan Journal. This study introduces a novel measurement tool designed to identify key factors influencing the joy of life among the elderly population. The scale was rigorously developed and validated, providing a reliable means to assess the psychological and social well-being of older adults. The manuscript aligns well with the scope of your journal, particularly in its focus on aging and health. I believe that this work will contribute valuable insights to the field and would be of interest to your readers. Thank you for considering this submission. I look forward to your feedback. Sincerely, Dr. Mustafa Filiz

Received Oct 5, 2024 | Revised Feb 17, 2025 | Accepted Mar 3, 2025

Joy of Life in Older Adulthood: A Scale Development Study

Yalçın Karagöz[1] | Yusuf Karaşin[2] | Mustafa Filiz[3] | Mehmet Ateş[4]

[1]Professor Dr., Düzce University, Healthcare Management. Düzce, Turkey, yalcinkaragoz@duzce.edu.tr. ORCID: 0000-0001-5642-6498. Duzce/Turkey
[2]Lecturer, Istanbul Gedik University, Department of Medical Services and Techniques. Istanbul/Turkey, yusuf.karasin@gedik.edu.tr. ORCID: 0000-0002-4594-9290.
[3]Asst.Prof., Artvin Coruh University, Healthcare Management. Artvin, Turkey, mustafa2108@artvin.edu.tr, ORCID: 0000-0002-7445-5361.
[4]PhD Student, Manisa Celal Bayar University Health Sciences Institute Social Work Department ORCID:0000-0002-5465-8401, atesmehmet1114@gmail.com

Correspondence
Mustafa Filiz, Artvin Coruh University, Artvin, Turkey
E-mail address: mustafa2108@artvin.edu.tr

Abstract

This study aims to introduce a measurement tool into the literature that can reveal the factors affecting the joy of life in older adulthood. Participants included 266 individuals aged 55 and over living in Izmir, Turkey. The process of developing the scale included the following stages: problem identification, item pool creation, expert opinion, form shaping, pilot application, and finalizing the scale. Exploratory factor analysis revealed that the scale consists of 6 different dimensions, and the variance explained by these dimensions was found to be 65.18%. The acceptable values for the scale's fit indicators are as follows: $\chi^2/df < 5$, RMR < 0.08, GFI > 0.90, IFI > 0.90, TLI > 0.90, CFI > 0.90, RMSEA < 0.08, and SRMR < 0.08. These values indicate an appropriate fit between the model and the data set. It was determined that the scale of factors affecting the joy of life in older adulthood is valid and reliable. The scale consists of six dimensions and 23 items.

KEYWORDS:
older adulthood, assessing joy, joy of life scale, scale development, older adulthood well-being

Joy of Life in Older Adulthood: A Scale Development Study

Older adulthood is a period marked by significant changes in an individual's life, presenting new challenges on physical, psychological, and social levels. Sustaining the joy of life during this period is crucial for an individual's overall health and quality of life (Logsdon et al., 2007; van Leeuwen et al., 2019). In the aging process, quality of life and joy of life are among the fundamental factors influencing an individual's general health and life satisfaction (Nedjat et al., 2018; van Leeuwen et al., 2019). Although the literature on identifying the factors affecting the joy of life in older adulthood and understanding the interactions among these factors is limited (Luong et al., 2011; Park & Kang, 2022), some studies do exist (Nakagawa et al., 2013; Gitlin et al., 2016; Rinnan et al., 2018).

Among the factors influencing the joy of life are various elements like physical health, social support networks, psychological resilience, economic status, and living conditions (Psarrou et al., 2023). Each of these elements can affect older adulthood individuals' quality of life and overall satisfaction in different ways (Alterovitz & Mendelsohn, 2013). While physical health issues, social isolation, economic difficulties, and psychological disorders can negatively affect the joy of life in older adults, strong social ties, favorable living conditions, and psychological resilience enhance the joy of life (Badri et al., 2022). Discrimination has been associated with decreased life satisfaction and increased levels of depression and anxiety (Litam & Oh, 2021). However, despite the well-established link between these elements and life satisfaction, current studies often lack tools specifically designed to comprehensively assess older adults' joy of life. This limitation creates a gap in researchers' understanding about the subjective joy of life (Gitlin et al., 2016; Rinnan et al., 2018). The main challenge is the lack of a scale tailored to assess joy of life in older adults. Although similar measures exist, such as the Life Satisfaction Index or Happiness Scales (Gitlin et al., 2016; Haugan et al., 2019; Nakagawa et al., 2013), they do not address dimensions specific to ageing, such as coping with losses, maintaining independence, and societal attitudes towards ageing (Nakagawa et al., 2013).

The current study aimed to develop a scale to identify and measure the elements affecting the joy of life in older adulthood. While this study primarily focuses on measurement, the developed scale provides a foundation for identifying potential strategies to enhance joy of life. Specifically, dimensions such as Losing Hope, Psychological Collapse, Social Support, Family Support, Institutional Support, and Adaptation highlight key areas where interventions can be developed. Future research can explore targeted strategies based on these dimensions to improve quality of life in older adulthood

Older Adulthood

The concept of older adulthood has been the subject of philosophical inquiry for millennia, with ancient thinkers like Plato discussing both physical decline and the potential for intellectual growth in later stages of life (Holyk, 2019). According to the World Health Organization (WHO), individuals aged 65 years and older are considered seniors or in older adulthood, while gerontologists categorize older adulthood into different stages. Gerontologists divide older adulthood into three categories: "young old" (65-74 years), "middle old" (75-84 years), and "oldest old" (85 years and older; Alterovitz & Mendelsohn, 2013). The aging process is distinguished by profound biological, psychological, and social transformations that markedly influence the quality of life and the experience of life in older adulthood individuals (Dziechciaz & Filip, 2014). We defined older adults as individuals aged 65 years and over, thereby encompassing all stages of older adulthood as described by gerontologists. These stages include the young old, middle old, and oldest old categories. This definition acknowledges the diverse experiences and needs within the ageing population, which are crucial for understanding and assessing the factors that influence quality of life in older adulthood.

The ageing process is characterized by intense biological, psychological and social changes. During this period, quality of life and joy of life become increasingly important to individuals. Maintaining and sustaining the joy of life in older people can affect their overall quality of life (Psarrou et al., 2023; Singh & Misra, 2009). In this context, governments have developed various social service models to enable older people to live actively and successfully in their social environment (Singh & Misra, 2009). WHO (2012) has defined the concept of active ageing, which aims to improve the quality of life of older people by increasing opportunities for health, social participation, and security. To achieve this, various social service models have been developed, such as home care services; nursing homes; and centers for day care, active living, and family counselling (WHO, 2002).

Historically, older adulthood has been associated with health problems and poverty (Holyk, 2019; Thane, 2000). However, modern societies have achieved longer life spans through advanced healthcare services and increased independence (Thane, 2000). This demographic shift is frequently met with concern rather than happiness, mainly due to worries about rising dependency and healthcare costs (Holyk, 2019; Thane, 2000). Contemporary society grapples with the contradictory trends of early cultural aging and the desire to remain youthful while aging (Holyk, 2019). Despite these challenges, older adulthood remains

a unique life stage that requires appropriate social approaches, and older adults can contribute valuable experiences to their communities (Thane, 2000).

Joy of Life

The concept of joy of life has been associated in the literature with various factors, including social support, physical health, psychological well-being, and socioeconomic status (Badri et al., 2022; Veenhoven, 2008). However, the effects of these factors on joy of life during the ageing process is not fully understood. Retirement, in particular, is an important milestone that can influence joy of life among older people. Preserving and maintaining joy of life during the retirement process could have a direct effect on older adults' overall quality of life (Kubicek et al., 2011).

Research on joy of life in later life highlights several key factors that contribute to the well-being of older people. Positive relationships, a sense of belonging, sources of meaning, moments of well-being, and acceptance are fundamental dimensions of joy among nursing home residents (Rinnan et al., 2018). Similarly, relationships, activities, health, philosophy of life, past and present experiences, and future perspectives significantly influence the quality of life of older people living at home (Nilsson, 1998). Activities that provide meaning and a state of flow are particularly enjoyable for older adults (Ferwagner, 2023; Nilsson, 1998). In addition, those who seek meaning tend to view ageing as development, while those who experience meaning perceive ageing more as growth and less as loss (Ferwagner, 2023). The social determinants of mental health frameworks are increasingly recognized as a crucial element in the assessment, conceptualization, and treatment of mental health issues among older adults (Jones et al., 2023). The implementation of effective prompts and personalized approaches is of paramount importance in the development of productive life reviews (Davis & Degges-White, 2008). Based on this information, it is important to promote positive experiences and meaningful activities to maintain joy of life throughout the ageing process.

In older adulthood, social contacts, dependency, health, and financial conditions play a crucial role in maintaining positive life satisfaction (Netuveli & Blane, 2008). The quality of social networks, self-rated general health, sense of control, and depressive symptoms are strongly associated with life satisfaction among the oldest people (Berg et al., 2006). There are gender differences; self-rated health and depressive symptoms are more important for women, while widowhood significantly affects men's life satisfaction (Berg et al., 2006). More importantly, ageing itself does not have a negative effect on quality of life, suggesting that maintaining and improving life satisfaction should be a goal in the clinical management of older adults (Netuveli & Blane, 2008).

Studies on the measurement tools used to assess factors that influence joy of life in older adulthood are not sufficient to meet the needs in this area (Halvorsrud & Kalfoss, 2007; Talarska et al., 2018). Therefore, there is a need to develop a reliable and valid measurement tool that can comprehensively assess factors affecting joy of life in older adulthood. This need is the main motivating factor behind the design of this study.

Older Adulthood in Turkey

In Turkey, the older adult population increased from 7,186,204 in 2018 to 8,722,806 in 2023, an increase of 21.4%. The proportion of the older adult population was 8.8% in 2018 and reached 10.2% in 2023. Of this population, 44.5% are men and 55.5% are women. Projections show that the older adult population will represent 12.9% of the total population in 2030, 16.3% in 2040, 22.6% in 2060, and 25.6% in 2080. Currently, 1,669,270 older adults live alone in Turkey, with 74.4% of these households consisting of older adult women and 25.6% of older adult men. The poverty rate among older adults reached 14.2% in 2019, rising further to 21.7% in 2023. For older adult men, the poverty rate increased from 12.1% in 2019 to 20.7% in 2023, while for older adult women it increased from 15.9% to 22.4% (Turkey Statistical Institute, 2023). Social service practices and models for the older adults in Turkey have been developed according to the needs of families. The Ministry of Family and Social Services (2022) provides various services ranging from home care and health services to nursing homes and rehabilitation centers.

Research Gap

The importance of this study stems from the need to understand the factors that influence joy of life in older adulthood and to develop a valid and reliable scale to measure these factors. The literature indicates a lack of comprehensive measurement tools that address the elements that influence the joy of life in older adults. In the extant literature, the Joy of Life Scale (Haugan et al., 2019) is specifically designed to assess the quality of life of cognitively intact individuals residing in nursing homes. The scale's unidimensional structure and 13-item format restrict its scope, rendering it unsuitable for a comprehensive assessment

of the multifaceted factors that contribute to the joy of life of older adults. Moreover, its applicability is limited to nursing home residents, which reduces its generalizability to broader populations. The Valuation of Life Scale, developed by Nakagawa et al. (2013) for Japan and used in Gitlin et al. (2016), addresses the influence of cultural differences and individuals' religious, spiritual, or social resources when measuring life value. However, these scales are inadequate for capturing the unique dimensions of joy of life in older adults, such as coping with losses, maintaining independence, and societal attitudes towards ageing. Furthermore, these scales concentrate on a restricted range of sub-dimensions associated with psychological well-being, failing to fully encompass the multidimensional nature of the ageing process. Despite the qualitative study by Rinnan et al. (2018) identifying meaningful concepts for understanding joy of life in older adults, the findings have not been translated into a scale format or developed into a quantitative measurement tool. This limits their practical applicability.

This study presents the Joy of Life in Old Age Scale (see Appendix), a multidimensional instrument developed for the Turkish population. It comprises six dimensions and offers a comprehensive conceptual framework, distinguishing it from existing scales. The Scale has been constructed with the objective of evaluating the various factors that affect joy of life in older adults. These include physical health, social connections, independence, coping with losses, and perceptions of ageing in society. It is noteworthy that the Scale is not limited to nursing home residents, but rather encompasses a broader segment of the population, thereby enhancing its generalizability. Although the Scale was developed using a sample from the Turkish population, it has the potential to be applied to other populations with similar cultural, demographic, and socio-economic characteristics. For instance, populations in countries with comparable social norms and experiences related to aging, like Mediterranean or Middle Eastern countries, may find the scale relevant. In this context, similar populations refer to those with similar societal values around aging, family structures, and healthcare systems, which significantly influence the experience of older adulthood and the joy of life. However, it is important to note that further validation studies would be required to assess the Scale's validity and reliability in these populations.

The Joy of Life in Old Age Scale provides a comprehensive framework to address the physical, psychological, and social changes associated with ageing and is anticipated to fill a significant gap in the existing literature. Furthermore, in comparison to other scales in the literature, this newly developed tool offers a broader perspective, enabling the development of more holistic strategies to enhance quality of life among older adults.

Methods

This study was a quantitative research endeavour with the objective of developing a scale to identify the factors influencing joy of life in old age. We employed a survey model, an approach designed to describe a current or past situation as it exists (DeVellis, 2013). In survey models, the phenomenon, objects, or individuals under investigation are defined based on their current state (Babbie, 2010). This approach allows for a comprehensive evaluation of the factors affecting life satisfaction and well-being among older adults, thereby providing valuable insights into the experiences of this demographic.

To facilitate the development of the Joy of Life in Old Age Scale, the conceptual framework of this study was informed by theories of well-being and life satisfaction. These posit that psychological, social, and physical factors interact to shape individuals' overall sense of happiness and satisfaction (Ryff, 1989). In this context, psychological factors—like psychological decline, hopelessness, and adaptation—as well as social factors—like social support, family support, and institutional support—have been considered. For example, Ryff's (1989) model of psychological well-being encompasses three key dimensions: autonomy, personal growth, and self-acceptance. These are supplemented by elements related to psychological resilience and self-esteem. Furthermore, social theories of ageing, notably the socio-emotional selectivity theory (Carstensen, 1992), underscore the pivotal function of social affiliations and emotional regulation in elucidating well-being in later life. This perspective has informed the incorporation of social support and family support as dimensions within the Scale (Carstensen, 1992). These theoretical perspectives also consider external factors, like adaptive capacity and institutional support, enabling the development of a scale that reflects the complex interplay of factors influencing joy of life in old age. Consequently, the study presents a comprehensive understanding in which both individual and societal factors are identified as critical elements that shape life satisfaction during the ageing process.

Participants

The sample for this study consisted of individuals aged 55 and above residing in the province of Izmir, Turkey. A total of 266 individuals voluntarily participated in the study. Although the conventional definition of older age often begins at 65, the

decision to select 55 years and above as the sample group was based on the specific demographic and socio-economic context of Turkey.

In Turkey, a significant proportion of the current retired population consists of individuals who retired at or before the age of 55, due to previous retirement regulations that allowed earlier retirement ages (Dünya Gazetesi, 2022). Although the retirement age has since increased to 65, this change applies to newer cohorts, and a large portion of the present elderly population retired under the old regulations. Therefore, selecting 55 years and above as the sampling criterion allowed us to capture the experiences and characteristics of a substantial and relevant segment of the retired population in Turkey. This approach ensures a more accurate representation of the current retired elderly demographic and aligns with the study's research objectives.

Among the participants, 43.2% (n = 115) were women and 56.8% (n = 151) were men. Furthermore, 22.9% (n = 61) were aged 55-64 years, 55.6% (n = 148) were aged 65-80 years, and 21.4% (n = 57) were aged 81 years and over. In terms of retirement status, 60.9% (n = 162) of the sample reported being retired, 18.4% (n = 49) were not retired, and 20.7% (n = 55) were not retired but had a regular income.

The research data were collected by one of the authors, who resides in İzmir and works as a social worker in a public institution that provides services to low-income older adults or those seeking support for aging-related needs. Data were gathered through a structured questionnaire, which included Likert-scale items, administered via face-to-face interviews with individuals who had applied to this institution. Participants were informed about the study and provided their informed consent. The data collection process took place between February 8, 2023, and December 25, 2023. Ethical approval for this study was obtained from the Artvin Coruh University Ethics Committee (Decision No: E-18457941-050.99-80528, dated February 6, 2023).

To be included in the study, participants were required to be at least 55 years of age and reside in the İzmir region. No exclusions were made based on specific health conditions; however, individuals with diagnosed cognitive impairments or severe physical disabilities that could hinder meaningful participation were excluded. Screening for cognitive impairments was conducted based on self-reports and information provided by family members or caregivers. Additionally, participants were required to demonstrate an understanding of the study's purpose and consent process before proceeding with the interview. This approach ensured that all participants could provide informed consent and actively engage in the survey process.

Ethical Approvals for the Study

After determining the purpose and scope of the study, necessary forms were prepared to evaluate ethical compliance. Ethical approval was obtained from the Artvin Coruh University Ethics Committee. Furthermore, informed consent was obtained from all participants before data collection. This ensured that they were fully aware of the study's purpose, scope, and their rights, including the option to withdraw at any stage without repercussions. This process was conducted following the ethical principles set forth in the Declaration of Helsinki. Moreover, we guaranteed that the data collected would be employed solely for the purposes of the study.

Scale Development Process

We used the stages recommended by DeVellis (2013) in the development phase of the Scale, which was designed to identify factors that influence the joy of life in older adulthood people. These stages include: (a) Defining the problem; Setting objectives and questions; (b) Writing items; creating drafts and forms; (c) Seeking expert opinions; developing a preliminary form; and (d) Pilot testing and finalizing the scale.

The first stage of scale development was to identify the problem situation. This was done by conducting a literature review of factors that influence the ageing process of individuals in the sample group. This literature review examined research studies that focused on or related to factors affecting joy of life during the aging process (Alterovitz & Mendelsohn, 2013; Badri et al., 2022; Bøen et al., 2012; Ferwagner, 2023; Halvorsrud & Kalfoss, 2007; Holyk, 2019; Lindwall et al., 2017; Nair et al., 2021; Odone et al., 2021; Osborne, 2012; Talarska et al., 2018; Veenhoven, 2008; Wright & Brown, 2017).

The second stage of the process entailed the creation of an item pool based on the findings of the literature review. Subsequent to the review, an item pool comprising 56 items was constructed. The scale items were designed to address the factors that influence the experience of joy in later life. During the item creation phase, we paid particular attention to ensuring that items were clear, that they included both positive and negative expressions, and that each item avoided multiple judgments (Worthington & Whittaker, 2006). In the third stage, feedback was sought from a group of 10 experts in the field about the draft scale.

This group included five academics from the Faculty of Education, three from Health Sciences, and two from Economics and Administrative Sciences.

Following the recommendations of the academics, 13 items (M1, M4, M11, M18, M20, M23, M26, M30, M33, M38, M39, M52, M54) were excluded from the scale on the grounds of their similarities and superfluous expressions. Furthermore, seven items (M8, M35, M36, M46, M48, M50, M53) were revised to rectify expression issues. The content validity of the draft scale was calculated based on the values provided by the experts for each item, resulting in a value of 87%. Subsequently, the scale expressions were subjected to a pilot testing phase, following the content validity assessment. During this phase, we conducted a pilot study with 21 participants. Based on the feedback received about the clarity of the items and the presence of spelling errors, three items (M22, M45, M49) were removed from the scale. Finally, to assess test-retest reliability, the draft scale was administered on two occasions, with a 3-week interval between each administration, to a sample of 31 participants. The Pearson correlation coefficient between the first and second administrations was found to be 0.79, indicating a strong positive correlation. This indicates that the measurements taken at different times were highly consistent, thereby establishing the scale as a reliable instrument. Once the processes had been completed, we initiated data collection with the target population.

A 40-item scale was administered to participants, utilizing a 5-point Likert-type rating system. The scale incorporated response options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The items were designed to measure various aspects of the construct, with higher scores indicating a greater presence of the measured attribute. Positive statements were assigned a direct score (i.e., 1 = Strongly Disagree, 5 = Strongly Agree), while negatively worded items were reverse-scored (i.e., 1 = Strongly Agree, 5 = Strongly Disagree). This approach to scoring was adopted to ensure consistency in interpretation. It is recommended that future researchers replicate this process by maintaining the same response format and scoring method when adapting or applying the scale.

Analysis of Study Data

We analyzed the data obtained using IBM SPSS (Gaur & Gaur, 2006) and AMOS (Barnidge & Zúñiga, 2017), software packages. Initially, we performed Exploratory Factor Analysis (EFA), followed by Confirmatory Factor Analysis (CFA) under structural equation modeling. We calculated Composite Reliability (CR) and Average Variance Extracted (AVE) values to assess the construct validity and reliability of the Scale.

We conducted an a priori power analysis using GPower to determine the required sample size before data collection. Based on a medium effect size ($f^2 = 0.15$), an alpha level of 0.05, and a desired power of 0.80, the analysis indicated that a minimum of 153 participants was needed to achieve sufficient power for the study. After data collection, a post hoc power analysis was also performed to verify the adequacy of the final sample size of 266 participants. The analysis revealed a high statistical power ($1 - \beta = 0.999$), indicating a 99.94% likelihood of detecting a true effect, with a minimal risk of Type II error. The critical F value required to reject the null hypothesis was calculated as 2.13, with degrees of freedom set at 6 for the numerator and 259 for the denominator (Barnidge & Zúñiga, 2017; Gaur & Gaur, 2006). These findings confirm that the study design is robust and capable of yielding reliable and statistically significant results.

Author Positionality

First Author. The first author specializeshe field of biostatistics and is a professor at a state university. He has published extensively in both national and international journals, as well as authoring several books. His research interests include the statistical evaluation of the issue of ageing.

Second Author. The second author is employed as a lecturer at a private university, specializing in areas including health management, administration, and organization. He is engaged in several research projects examining the rising prevalence of ageing in Turkey. In this context, he plays an active role in academic activities related to the interrelationship between aging and happiness.

Third Author. The third author is an Assistant Professor at a public university in Turkey, specializing in health management. His research interests include hospital management, health planning, and health policies. He has made significant contributions to many studies on ageing in Turkey.

Fourth Author. The fourth author has been employed as a social services specialist in the older adulthood services unit under the Ministry of Family and Social Services for approximately 3 years. He is distinguished by his interest in issues related to

aging and sustainability studies. He devotes a substantial proportion of his daily work to projects about this field and is currently preparing a doctoral thesis on the subject of ageing.

Results

As is the case with any study, this research is based on several underlying assumptions. Before presenting the analysis results, we provide an overview of the underlying assumptions. Firstly, we assumed that the factors influencing joy of life in old age could be quantified and represented in a meaningful manner using a valid and reliable scale. We employed a quantitative research design to identify these factors. Secondly, we assumed that the sample used in the study was sufficiently diverse and large enough to represent the older adult population in Turkey. Thirdly, although the factors affecting joy of life in older adults are multidimensional and involve the interaction of numerous variables, we focused on specific factors on the assumption that these provide a sufficient framework for analysis. The normality of the data distribution was assessed using skewness and kurtosis values. When examining the skewness and kurtosis values of the variables, we found that they fell within the acceptable range of -3 to +3, indicating a normal distribution (Tabachnick & Fidell, 2001).

EFA

The EFA results include pivotal indicators such as factor loadings, eigenvalues, explained variance, and sub-dimensions, offering insights into the overall structure and reliability of the scale. EFA was conducted to assess the suitability of the study sample for factor analysis, determine the factor structure, the explained variance ratio, and the eigenvalue ratios. The findings obtained are presented in Table 1.

Table 1
Results From the EFA

Factor	Statements	Factor Loadings	Eigen value	Explained Variance
Losing Hope	M15: As I become older in adulthood, I feel increasingly useless.	.733		
	M14: I feel like I have lost my freedom.	.729		
	M56: Finding new friends has become more difficult as I have grown older in adulthood.	.664	3.094	%13.451
	M51: I feel like I am a burden to my children.	.643		
	M7: I have no goals I wish to achieve in life.	.613		
	M9: My energy for life diminishes as I become older in adulthood.	.516		
Psychological Collapse	M21: I have become upset by even very small things as I get older in adulthood.	.796		
	M12: My stress levels increase as I get older in adulthood.	.762		
	M24: I struggle to control my emotions as I get older in adulthood.	.718	2.995	%13.020
	M13: My sleep problems have worsened as I have gotten older in adulthood.	.635		
	M5: I feel sad about becoming more isolated as I get older in adulthood.	.530		
Social Support	M41: As I get older in adulthood, society has come to respect me more.	.820		
	M31: As I get older adulthood, people pay more attention to my opinions.	.779	2.387	%10.377
	M40: Society's affection increases with older adulthood.	.697		
Family Support	M16: Spending time with my children brings me joy.	.820		
	M29: I spend better quality time with my family in older adulthood.	.695	2.294	%9.973
	M6: Experiencing role changes (such as becoming a grandfather from being a father, transitioning from an active worker to a passive role) makes me happy.	.673		
Institutional Support	M43: Health services for the older adulthood are adequate.	.851		
	M44: Being a priority in healthcare makes me happy.	.804	2.274	%9.888
	M42: Having social policies for the older adulthood by the government gives me reassurance.	.791		
Adaptation	M3: As I get older in adulthood, I have more opportunities to read my holy book.	.786	1.949	%8.475
	M2: I allocate more time for my religious practices as I get older in adulthood.	.784		
	M28: I have started to dedicate more time to my hobbies in older adulthood.	.642		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax
Kaiser-Meyer-OlkinMeasure of SamplingAdequacy (KMO): 0.825
Bartlett's Test of Sphericity: Approx. Chi-Square: 2593.382; df:253 sig:0.000
Explained Total Variance: 65.184

In Table 1, the KMO value is .825, which is considered excellent. A high KMO value indicates that the sample size is sufficient for factor analysis. Since $p = .000 < .05$, the Bartlett test result is also significant, implying that there are high correlations among

the variables and that the data are derived from a multivariate normal distribution. Based on these findings, the data are suitable for factor analysis. The total variance explained ratio in Table 1 is 65.18%, with the sub-factors accounting for 13.45%, 13.02%, 10.38%, 9.97%, 9.89%, and 8.48% of the total variance, respectively. The eigenvalues for all six factors are > 1. This value is sufficient for social sciences, indicating that the factors adequately explain the items and that the scale's structure is sufficiently accounted for (Tabachnick & Fidell, 2001). Therefore, the model's construct validity is established.

The names of the six dimensions identified through EFA were determined based on the meanings conveyed by the items grouped under each dimension. Finally, six items were removed from the scale due to having low factor loadings (<.400), and four items were removed because they loaded onto multiple factors. Thus, 10 items (M10, M17, M19, M25, M27, M32, M34, M37, M47, and M55) were excluded from the scale. The following section provides an explanation of the sub-dimensions included in the developed scale.

Losing Hope Factor. This factor represents the emotional state of individuals who perceive a decline in their value and sense of purpose with advancing age. The individual experiences a sense of diminished autonomy, encounters challenges in forming new social connections, perceives themselves as a burden to their children, and encounters difficulties in setting life goals. Furthermore, a reduction in life energy is perceived with age.

The Psychological Collapse Factor. This factor encompasses expressions related to the psychological distress experienced by individuals as they age and is designated as "psychological collapse." The key elements of this factor include heightened sensitivity to events, increased stress levels, difficulties with emotional control, sleep problems, and feelings of social isolation.

The Social Support Factor. The expressions included under this factor indicate an increase in the level of societal respect and attention received by individuals as they age. In our sample, individuals expressed a desire to feel that society values them more and places greater importance on their opinions as they grow older adulthood.

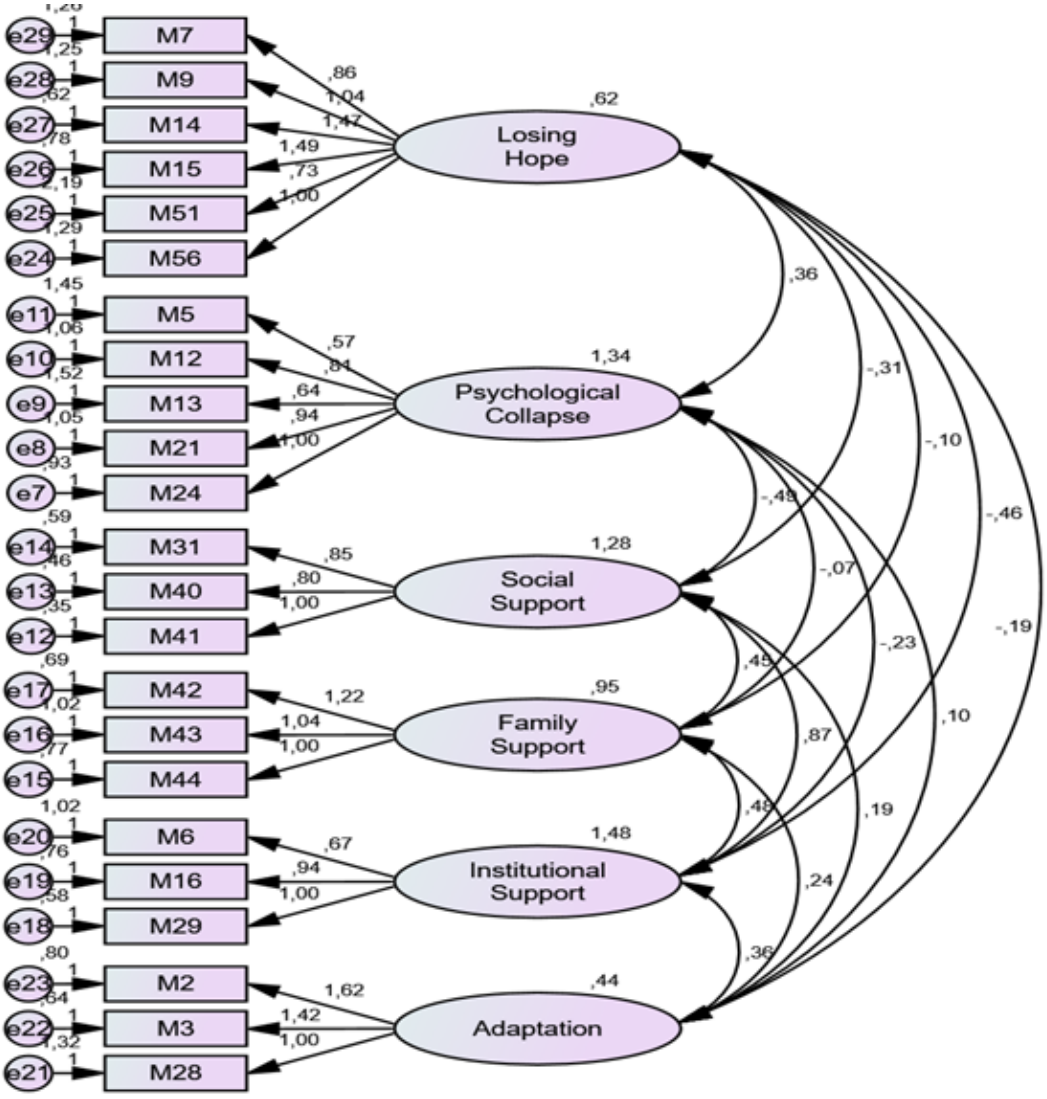
The Family Support Factor. This factor reflects the observation that individuals experience an increase in the quality of time spent with their families during older adulthood, and that their relationships with their children bring them happiness. Transformations in familial roles (e.g., the transition from parenting to grandparenting) engender feelings of contentment in individuals.

The Institutional Support Factor. This factor indicates that older adulthood individuals perceive the provision of healthcare services for older adults to be adequate. It underscores the significance of healthcare accessibility and the caliber of healthcare services for older adulthood individuals.

CFA

CFA is a process used to create latent variables (factors) from observed variables based on a pre-established model (Di Fabio & Blustein, 2016). It is commonly used in scale development and validity analyses or to confirm a predetermined structure. CFA is employed to define multivariate statistical analyses involving latent structures represented by many observed or measured variables (Di Fabio & Blustein, 2016). To ensure structural validity, EFA was conducted first, and the factors identified through EFA were subsequently confirmed through CFA. Figure 1 presents the model fit diagram.

FIGURE 1 AMOS Diagram of the Model



To examine the fit of the factor structures of the model presented in Figure 1, model fit indices were evaluated. There are no strict limits on which indices should be reported, as the choice may vary depending on the values the researcher wishes to emphasize. We found that the goodness of fit indices for the model were within an acceptable range (CMIN: 2.659; RMR: .041; GFI: .901; IFI: .914; TLI: .920; CFI: .937; SRMR: .0486; RMSEA: .079). The acceptable values for the goodness of fit indices are as follows χ^2/df (CMIN) < 5, RMR < 0.08, GFI > 0.90, IFI > 0.90, TLI > 0.90, CFI > 0.90, RMSEA < 0.08 and SRMR < 0.08 (Hooper et al., 2008; Munro, 2005; Schumacher & Lomax, 2010). Accordingly, these fit indices indicate a good fit between the model and the data set (Schumacher & Lomax, 2010). The interactions between factors and items are shown in Table 2.

Table 2

Interaction Between Factors and Items

Factors	Expression	SMC Value	Standardized Value	Estimate	SE	T Value	P ***<.05
	M15	.640	.800	1.489	.165	5.103	***
Losing	M14	.685	.827	1.472	.161	9.149	***
Hope	M56	.326	.571	1.000			
	M51	.132	.364	.731	.143	5.103	***
	M7	.269	.518	.861	.126	6.810	***
	M9	.352	.593	1.043	.139	7.515	***
	M21	.529	.727	.938	.090	10.460	***
Psychological	M12	.455	.675	.812	.083	9.833	***
Collapse	M24	.590	.768	1.000			
	M13	.267	.517	.642	.084	7.608	***
	M5	.232	.482	.570	.080	7.100	***
Social	M41	.784	.886	1.000			
Suport	M31	.612	.782	.850	.058	14.570	***
	M40	.643	.802	.802	.053	15.020	***
Family	M16	.635	.797	.942	.072	13.029	***
Suport	M29	.717	.847	1.000			
	M6	.396	.629	.669	.066	10.212	***
Institutional	M43	.503	.710	1.041	.102	10.177	***
Support	M44	.553	.743	1.000			
	M42	.671	.819	1.219	.113	10.803	***
Adaptation	M3	.580	.762	1.417	.203	6.977	***
	M2	.592	.769	1.621	.232	6.981	***
	M28	.250	.500	1.000			

Table 2 presents the results of the interaction between the scale factors and the scale items. The regression values indicate the predictive power of the observed variables for the latent variables, reflecting the factor loadings. In the model, the factor loadings are significant as the p-values of all pairwise relationships are less than 0.001. This means that the p-values are meaningful and that the items are appropriately loaded on the factors. Furthermore, standardized regression coefficients greater than .364 (>.350) indicate high predictive power for the latent variables, as well as high factor loadings for each item. Finally, the standard error ratios and t-values at the 99% confidence level ($t > 1.96$) were acceptable levels (Di Fabio & Blustein, 2016). When examining the SMC values for the statements in the developed scale, it is noted that, except for item M51 (.132), the values obtained were all below .200. Nevertheless, item M51 was not excluded from the scale because it is a significant item within the sub-dimension and its *p*-value was also significant (<.001). Finally, the CR, AVE, and Cronbach's alpha coefficients for the subdimensions of the scale were examined. The results are presented in Table 3.

Table 3

Cronbach's Alpha, CR and AVE Values of Scale Sub-Dimensions

Sub-Dimension	M	Cronbach's α	AVE	CR
Losing Hope	3.48	.781	.40	.65
Psychological Collapse	2.70	.769	.42	.64
Social Support	3.23	.858	.68	.82
Family Support	2.99	.798	.58	.68
Institutional Support	3.28	.802	.58	.69
Adaptation	2.29	.705	.48	.60

Note. CR = Composite Reliability, AVE = Average Variance Extracted

Although the calculated AVE value is below .50, the CR value above .60 indicates the validity of the model's fit (Tabachnick & Fidell, 2001). As can be seen in Table 3, the AVE values for the sub-factors losing hope, psychological collapse, and adaptation are below .50, but the CR values for these factors are .60 or above. This confirms the validity of the model. In addition, the reliability coefficients showed that the scale is quite reliable. The overall reliability coefficient for the whole scale was calculated to be .811.

Finally, we conducted a correlation analysis for the sub-dimensions of the scale assessing factors affecting older adults' enjoyment of life. This analysis examined the relationships between the subdimensions of psychological collapse, social support, family support, institutional support, adaptation and losing hope. A negative relationship was found between psychological collapse and social support ($r = -.373$, $p < .01$) and institutional support ($r = -.164$, $p < .05$), while a positive relationship was observed with losing hope ($r = .395$, $p < .01$). Social support was positively correlated with family support ($r = .410$, $p < .01$), institutional support ($r = .631$, $p < .01$), and adaptation ($r = .260$, $p < .01$) and negatively correlated with losing hope ($r = -0.349$, $p < 0.01$). Family support showed a positive relationship with institutional support ($r = .406$, $p < .01$) and adaptation ($r = .372$, $p < .01$), and institutional support showed a positive relationship with adaptation ($r = .451$, $p < .01$) and a negative relationship with losing hope ($r = -.482$, $p < .01$). Finally, there was a negative relationship between adaptation and losing hope ($r = -.365$, $p < .01$). Table 4 presents the statistical relationships between the demographic data of the participants included in the study and the sub-dimensions of the developed scale.

Table 4
Statistical Data on Demographics

Variable	Losing Hope t^a/F^b	p^c	Psychological Collapse t^a/F^b	p^c	Social Support t^a/F^b	p^c	Family Support t^a/F^b	p^c	Institutional support t^a/F^b	p^c	Adaptation t^a/F^b	p^c
Gender												
Female	0.94	0.35	5.45	0.00	-0.19	0.85	3.04	0.00	1.91	0.06	1.65	0.10
Male												
Age												
55-64												
65-80	2.58	0.08	2.28	0.10	2.16	0.12	0.93	0.39	0.73	0.48	1.59	0.21
81 and above												
Retirement Status												
Retired												
Not Retired	2.37	0.10	4.82	0.01	7.21	0.00	0.24	0.79	1.33	0.27	1.86	0.16
Not Retired. but have income												

[a] Independent t-test
[b] Analysis of Variance (ANOVA) test
[c] *p*-value (2tailed)

Upon examination of the relationships between participants' gender and the sub-factors of the developed scale, a statistically significant relationship was identified between gender and the psychological distress and family support sub-factors ($p < 0.05$). Female participants provided higher ratings on both the psychological distress and family support sub-factors than the male participants. No statistically significant relationship was identified between gender and the remaining factors ($p > 0.05$). No statistically significant correlation was identified between age and the sub-dimensions of the scale. A statistically significant relationship was identified between participants' retirement status and the psychological distress and social support sub-dimensions ($p < 0.05$). However, no statistically significant relationship was identified between retirement status and the remaining sub-factors ($p > 0.05$).

Discussion

This research, conducted with the aim of developing a scale to examine the factors that influence joy of life in older adulthood, yielded significant findings. The results indicate that the scale development process was successful both statistically and conceptually. This section discusses the findings of the research by comparing them with similar studies in the literature. Both similar and different findings are evaluated. The KMO and Bartlett's test results obtained from our Scale indicate that the data were suitable for factor analysis (Tabachnick & Fidell, 2001). These results are consistent with statistical measures commonly used in the social sciences. The total variance explained and the eigenvalues are above the thresholds recommended in the literature (Di Fabio & Blustein, 2016), supporting the structural validity of the Scale. The values of the fit indices of the scale (CMIN, RMR, TLI, CFI, SRMR and RMSEA) are in line with the standards established in the literature (Byrne, 2012; De Carvalho & Chima, 2014; Fornell & Larcker, 1981; Schermelleh-Engel et al., 2003). All subdimensions were reliable. This is consistent with the findings in the literature, which suggest that scales with high reliability coefficients have the desired properties (Di Fabio & Blustein, 2016; Tabachnick & Fidell, 2001).

The Joy of Life in Older Adulthood Scale includes six sub-dimensions and 23 items. The nomenclature assigned to these sub-dimensions represents the terminology most accurately describing the items under each subscale. The sub-scale formed by the first six items measures the Losing of Hope factor, Items 7–11 measure the Psychological Decline factor, Items 12–14 measure the Social Support factor, Items 15–17 measure the Family Support factor, Items 18–20 measure the Institutional Support factor, and Items 21–23 measure the Adaptation factor.

Losing of Hope Factor

The Losing of Hope Factor encompasses statements that elucidate the diminution in life satisfaction that individuals experience with advancing age. The existing literature provides evidence of this phenomenon (Alterovitz & Mendelsohn, 2013; Bøen et al., 2012). This result emphasizes the need for interventions targeting older adults' mental well-being to improve their overall life satisfaction. Such efforts can potentially reduce feelings of hopelessness, which have been shown to negatively impact older individuals' quality of life.

Psychological Collapse Factor

The Psychological Collapse Factor pertains to the psychological challenges that individuals encounter as they age. A substantial body of literature exists on the psychological problems associated with aging (Halvorsrud & Kalfoss, 2007; Talarska et al., 2018). This study's results underscore the importance of mental health support systems for older adults to prevent or manage psychological decline. Practitioners in gerontology should consider integrating psychological care services in elder care programs to help individuals maintain better mental health as they age.

Social Support Factor

The Social Support Factor represents the respect and affection that individuals receive as a result of their age. It can be posited that this factor applies to Turkey, the country in which the scale was developed, and culturally similar countries. These findings suggest that enhancing social support structures can significantly improve life satisfaction among older adults, particularly in societies where family and social connections are highly valued.

Family Support Factor

The Family Support Factor emphasizes the positive effects of family interactions on the well-being of older adults. This factor highlights the joy and fulfillment derived from spending quality time with family members, particularly children, and adapting to new familial roles in later life. Experiences like transitioning from being a parent to a grandparent or shifting from an active worker to a more passive role contribute positively to life satisfaction.

Institutional Support Factor

The Institutional Support Factor encompasses statements pertaining to the social and healthcare rights afforded to older adulthood individuals. An array of existing studies on this phenomenon can be found in the literature, including those by Veenhoven (2008) and Badri et al. (2022). These results advocate for stronger policy frameworks that guarantee older adults receive comprehensive healthcare and social support, ultimately improving their quality of life and integration into society.

Adaptation Factor

The Adaptation Factor pertains to the acceptance of ageing and the capacity to adapt to the ageing process. It is anticipated that older adulthood individuals will demonstrate this attitude, as evidenced by the findings of Kubicek et al. (2011). The results of this study suggest that older adults who successfully adapt to aging are more likely to experience higher life satisfaction. Programs aimed at promoting positive aging strategies and self-acceptance could be beneficial in assisting older adults to navigate the aging process with greater ease and contentment.

The negative relationship found between the social support subsubscales of the scale and psychological collapse aligns with previous research (Bøen et al., 2012). A reduction in social support can increase psychological problems, especially among older adulthood people (Bøen et al., 2012). Social support is a crucial factor that facilitates individuals' resilience to the challenges they face in older adulthood. Therefore, it can be suggested that a decrease in social support may be related to psychological collapse. Life after retirement may be challenging for some individuals, and this period may trigger psychological problems (Lindwall et al., 2017; Odone et al., 2021; Osborne, 2012). In this context, the negative effects on retired people's joy of life might be attributed to the changes brought about by post-retirement life, social isolation, or economic difficulties.

The Joy of Life in Older Adulthood Scale in Practice

The Scale has been developed for use by social service professionals, psychiatrists, psychologists, healthcare professionals involved in older adult care, counselors, and academics. It can be employed in several ways, including as a screening tool to assess various aspects of older adults' well-being or as a research instrument to explore the nuances of older adult joy, life satisfaction, and social engagement. The Scale can also be used to highlight and measure specific social activities that foster engagement within the community. Those engaged in the care of older adults, or with an interest in the field of ageing, may find this Scale useful for individual assessments related to older adulthood and during group activities. Moreover, the Scale can be employed as a valuable instrument in the design of research projects focused on the ageing process. The developed Scale has the potential to be a valuable tool in a range of clinical and counselling applications. The Scale can be employed to evaluate the quality of life of older adulthood individuals in domains like psychological counseling and social services. Consequently, healthcare providers and counsellors are better equipped to comprehend the difficulties encountered by older adults and to devise interventions aligned with their specific requirements. This approach could prove effective not only in individual care but also in enhancing the psychological well-being of the older adult population (Lindwall et al., 2017).

Furthermore, the Joy of Life in Older Adulthood Scale underscores the significance of social support, offering a valuable instrument for the formulation of social support initiatives in this domain. Such programs could enhance awareness of the necessity to reinforce social support structures, facilitating the development of initiatives and strategies designed to enhance the quality of relationships between older adults and their communities. The existing literature provides clear evidence of a strong relationship between social support and the well-being of older adults (Bøen et al., 2012). The Scale also provides a valuable opportunity to examine the influence of cultural and geographical factors on the perception of joy of life among older adults. Although we focused on Izmir, Turkey, the application of similar scales in different regions and countries could elucidate the manner in which cultural and societal structures influence the ageing experience. Comparative studies could contribute to international discussions on the quality of life in old age and facilitate the development of culturally sensitive approaches to older adulthood care.

Although our scale was developed with a sample from Izmir, Turkey, it can be used in different countries, as the items and sub-scales are applicable across diverse contexts. One such country is the United States of America. When the scale is applied to a sample from the USA, it is anticipated that the results will be similar for four sub-scales (Loss of Hope, Psychological Collapse, Institutional Support, and Adaptation). However, the results for the sub-scales of Social Support and Family Support might differ from those observed in the Turkish sample. This discrepancy can likely be attributed to cultural and societal distinctions between the countries involved. These cultural differences further highlight the importance of understanding the broader implications of social support and psychological resilience on the quality of life for older adults.

It is important that the general public be made aware of the potential role that social support and psychological resilience could play in enhancing the quality of life for older adults. The dissemination of these ideas within the community might help facilitate the development of social initiatives aimed at supporting older adults. Such efforts could contribute to the creation of a more inclusive and compassionate society that prioritizes the well-being and dignity of older adults.

The fact that the target population is of an advanced age also brings with it ethical responsibilities in assessing older adults' quality of life and developing interventions. In particular, issues pertaining to the privacy, dignity, and consent of older adults must be given careful consideration during the data collection process. It is imperative that research methods do not have a negative effect on the psychological and emotional state of participants or exploit them. Furthermore, researchers must be mindful of the risk of psychological exclusion and take care not to create a sense of marginalization. In addition, they must consider the diverse needs and characteristics of individuals. In all interactions with older adults, it is crucial to uphold privacy and ensure transparency within the framework of ethical responsibilities.

Finally, it is important to consider the need for adaptations to interventions to align them with the specific cultural and socioeconomic contexts in which they are implemented. It is unrealistic to expect that recommendations will be equally effective for every individual or community. Such adaptations necessitate the formulation of interventions that are attuned to the specific local needs and value systems. This approach can enhance the efficacy of interventions and facilitate more constructive contributions to the well-being of the targeted individuals.

Implications for Professional Counselors

The Joy of Life in Older Adulthood Scale provides advantages for professional counselors, serving as a valuable tool for assessing the joy of life in older adults. It offers a structured approach to understanding various factors that influence the well-being of older adults, enabling counselors to design more effective interventions. One primary application of the scale is in individual assessment. Counselors can use it during sessions with older adulthood clients to identify key factors that affect their sense of joy and satisfaction in life. By analyzing the results, counselors gain a deeper understanding of the psychological state of their clients, allowing them to target specific areas where support is needed. For example, individuals scoring high on the Losing Hope subscales might be struggling with issues like low self-esteem or social isolation (Bøen et al., 2012). Addressing these challenges could improve their overall mental health and quality of life.

Additionally, the Scale is well-suited for group work. It can be employed in group therapy or support group settings to foster interactions among participants and facilitate mutual understanding. Data derived from the scale enable counselors to better understand group dynamics and craft effective strategies for providing social support. This approach not only strengthens the group experience but also encourages shared growth and resilience among participants (Lindwall et al., 2017). Further, the Scale plays a crucial role in planning interventions. The insights it provides could allow counselors to develop targeted strategies to address specific needs. For example, clients with low scores on the Family Support sub-scale might benefit from family therapy or participation in support programs aimed at strengthening familial relationships. This data-driven approach enables counselors to implement interventions that directly enhance the quality of life for older adult clients, making the scale a vital resource for professional practice (Di Fabio & Blustein, 2016).

The scale can be used by social service professionals, counselors, and psychologists for individual assessments to identify factors influencing life satisfaction. In group-based settings, such as therapy or support groups, the scale can foster mutual understanding by highlighting common issues. Additionally, the data collected can inform the development of targeted interventions aimed at improving family relationships or enhancing social support.

Future Research and Limitations

Although this study provides valuable insights, it is not without limitations. These limitations should be addressed in future research to further validate and expand upon the findings. One limitation of this study is the age range of the participants, with a focus on individuals aged 55 and older. This is a limitation because "older adulthood" typically begins at 65 years of age, and the inclusion of participants under 65 could lead to a different understanding of the factors influencing life satisfaction. Future research should include a broader age range, particularly individuals aged 65 and above, to better capture the experiences of those typically classified as older adults.

Another limitation is the geographical scope of the study. This research was conducted with participants residing in İzmir, Turkey, which does not fully represent the experiences of older adults in other regions or countries. The cultural and geographical context is an important factor that can influence the outcomes of such studies. Future studies should broaden the geographical scope by including participants from different regions of Turkey or other countries, allowing for a more comprehensive understanding of how cultural and regional differences shape older adults' experiences.

A further limitation lies in the research method. This study employed a quantitative approach, which cannot fully capture the complexity and nuances of the factors influencing life satisfaction in older adulthood. Given the multifaceted nature of this topic, future research could benefit from the inclusion of qualitative methods, such as interviews or focus groups, to gain a deeper, more nuanced understanding of the factors influencing joy and life satisfaction in older adults. Similarly, our data analysis techniques, including EFA and CFA, might not have fully addressed all the structural characteristics of the scale. While these techniques provide valuable insights, employing additional or alternative analytical methods could yield different results and offer a more robust understanding of the relationships within the data. Future research could explore the use of advanced statistical techniques to validate the scale's findings and provide a more comprehensive evaluation. Finally, the cross-sectional

nature of the data collection presents another limitation. Data were collected at a single point in time, which limits the ability to assess changes over time or establish causal relationships. In future research, a longitudinal approach could provide deeper insights into how the factors influencing life satisfaction in older adulthood evolve over time.

In addition to addressing these limitations, future studies could also consider the development of public campaigns and programs aimed at enhancing social support and psychological resilience among older adults. Such initiatives could play a critical role in improving the overall quality of life for older individuals and fostering a more supportive and inclusive society.

Conclusion

This study on the development of a scale to measure the factors influencing the joy of life in older adulthood makes a significant contribution to the understanding and assessment of the joy of life in older adults. The results indicate that the psychometric properties of the scale are quite robust. The Joy of Life in Older Adulthood Scale consists of six sub-scales: losing hope, psychological collapse, social support, family support, institutional support, and adaptation, with a total of 23 items. This study provides a comprehensive and scientific approach to understanding the factors that influence the joy of life in older adulthood. The results contribute to existing knowledge of assessing and understanding the joy of life of older adulthood. This Scale can be effectively used by both researchers and clinical practitioners as a tool for assessing the joy of life in older adults. By identifying the factors that affect the joy of life in older adults, counselors can focus their attention to achieve more effective outcomes (Odone et al., 2021). Counselors can also identify the influence of social support and psychological resilience on the joy of life in later years. This knowledge could improve the development of appropriate social support mechanisms with the objective of enhancing the quality of life for older adults (Osborne, 2012).

References

Alterovitz, S. S., & Mendelsohn, G. A. (2013). Relationship goals of middle-aged, young-old, and old-old internet daters: An analysis of online personal ads. *Journal of Aging Studies, 27*(2), 159-165. https://doi.org/10.1016/j.jaging.2012.12.006

Babbie, E. (2010). *The practice of social research* (12th ed.). Wadsworth.

Badri, M. A., Alkhaili, M., Aldhaheri, H., Yang, G., Albahar, M., & Alrashdi, A. (2022). Exploring the reciprocal relationships between happiness and life satisfaction of working adults: Evidence from Abu Dhabi. *International Journal of Environmental Research and Public Health, 19*(6), Article 3575. https://doi.org/10.3390/ijerph19063575

Barnidge, M., & Zúñiga, H. G. (2017). Amos (Software). In J. Matthes (Ed.), *The International encyclopedia of communication research methods* (pp. 1–3). Wiley. https://doi.org/10.1002/9781118901731.iecrm0003

Berg, A. I., Hoffman, L., Hassing, L. B., McClearn, G. E., & Johansson, B. (2009). What matters, and what matters most, for change in life satisfaction in the oldest-old? A study over six years among individuals 80+. *Aging & Mental Health, 13*(2), 191–201. https://doi.org/10.1080/13607860802342227

Bøen, H., Dalgard, O. S., & Bjertness, E. (2012). The importance of social support in the associations between psychological distress and somatic health problems and socio-economic factors among older adults living at home: A cross sectional study. *BMC geriatrics, 12,* Article 27. https://doi.org/10.1186/1471-2318-12-27

Byrne, B. M. (2012). Choosing structural equation modeling computer software: Snapshots of LISREL, EQS, AMOS, and Mplus. In R. H. Hoyle (Ed.), *Handbook of structural equation modeling* (pp. 307–324). Guilford. https://psycnet.apa.org/record/2012-16551-019

Carstensen L. L. (1992). Social and emotional patterns in adulthood: support for socioemotional selectivity theory. *Psychology and Aging, 7*(3), 331–338. https://doi.org/10.1037//0882-7974.7.3.331

Davis, N. L., & Degges-White, S. (2008). Catalysts for developing productive life reviews: A multiple case study. *Adultspan Journal, 7*(2), 69-79. https://doi.org/10.1002/j.2161-0029.2008.tb00047.x

De Carvalho, J., & Chima, F. O. (2014). Applications of structural equation modeling in social sciences research. *American International Journal of Contemporary Research, 4*(1), 6-11. https://www.aijcrnet.com/journals/Vol_4_No_1_January_2014/2.pdf.

DeVellis, R.F. (2013). *Scale development theory and applications* (T. Totan, Trans.). Nobel Academic.

Di Fabio, A., & Blustein, D. L. (2016). From meaning of working to meaningful lives: The challenges of expanding decent work. *Frontiers in Psychology, 7,* 1199. https://doi.org/10.3389/fpsyg.2016.01119

Dünya Gazetesi. (2022, June 27). *The average retirement age in Turkey is 52*. Dünya. https://www.dunya.com/sektorler/sigortacilik/turkiyede-ortalama-emeklilik-yasi-52-haberi-357874D

Dziechciaz, M., & Filip, R. (2014). Biological psychological and social determinants of old age: Bio-psycho-social aspects of human aging. *Annals of Agricultural and Environmental Medicine, 21*(4), 835-838. https://doi.org/10.5604/12321966.1129943

Ferwagner, A. (2023). Happiness and meaningful life in old age. *Hungarian Gerontology, 15*(42), 38-61.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382–388. https://doi.org/10.2307/3150980

Gaur, A. S., & Gaur, S. S. (2006). *Statistical methods for practice and research:* A guide to data analysis using SPSS. Sage.

Gitlin, L. N., Parisi, J. M., Huang, J., Winter, L., & Roth, D. L. (2016). Attachment to life: Psychometric analyses of the valuation of life scale and differences among older adults. *The Gerontologist, 56*(3), e21-e31. https://doi.org/10.1093/geront/gnv696

Halvorsrud, L., & Kalfoss, M. (2007). The conceptualization and measurement of quality of life in older adults: A review of empirical studies published during 1994-2006. *European Journal of Ageing, 4*(4), 229–246. https://doi.org/10.1007/s10433-007-0063-3

Haugan, G., Rinnan, E., Espnes, G. A., Drageset, J., Rannestad, T., & André, B. (2019). Development and psychometric properties of the Joy-of-Life scale in cognitively intact nursing home patients. *Scandinavian Journal of Caring Sciences, 33*(4), 801-814. https://doi.org/10.1111/scs.12676

Holyk, S. V. (2019). Old age in the discourse of philosophy. *Development of Philology and Linguistics at the Modern Historical Period, 54*(3), 16–35. https://doi.org/10.36059/978-966-397-146-9/16-35

Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods, 6*(1), 53-60. https://academic-publishing.org/index.php/ejbrm/article/view/1224/1187

Jones, J. L., Lancaster, J., Robins, L., Killam, W. K., Nice, M. L., & Duyile, B. (2023). Utilization of the social determinants of mental health framework with older adults for assessment, case conceptualization, and treatment planning. *Adultspan Journal, 22*(1), Article 5. https://doi.org/10.33470/2161-0029.1145

Kubicek, B., Korunka, C., Raymo, J. M., &Hoonakker, P. (2011). Psychological well-being in retirement: the effects of personal and gendered contextual resources. *Journal of Occupational Health Psychology, 16*(2), 230–246. https://doi.org/10.1037/a0022334.

Lindwall, M., Berg, A. I., Bjälkebring, P., Buratti, S., Hansson, I., Hassing, L., Henning, G., Kivi, M., König, S., Thorvaldsson, V., & Johansson, B. (2017). Psychological health in the retirement transition: Rationale and first findings in the Health, Ageing and Retirement Transitions in Sweden (HEARTS) study. *Frontiers in Psychology, 8, Article 1634.* https://doi.org/10.3389/fpsyg.2017.01634

Litam, S. D. A., & Oh, S. (2021). Effects of COVID-19-related racial discrimination on depression and life satisfaction among young, middle, and older Chinese Americans. *Adultspan Journal, 20*(2), 70-84. https://doi.org/10.1002/adsp.12111

Logsdon, R. G., McCurry, S. M., & Teri, L. (2007). Evidence-Based interventions to improve quality of life for individuals with dementia. *Alzheimer's Care Today, 8*(4), 309–318. https://doi.org/10.1097/01.ALCAT.0000297151.12774.46

Luong, G., Charles, S. T., & Fingerman, K. L. (2011). Better with age: Social relationships across adulthood. *Journal of Social and Personal Relationships, 28*(1), 9–23. https://doi.org/10.1177/0265407510391362

Ministry of Family and Social Services. (2022). 2022 Annual Report. https://www.aile.gov.tr/media/129482/ashb_2022-idare-faaliyet-raporu.pdf

Munro, B. H. (2005). *Statistical methods for healthcare research* (Vol. 1). Lippincott Williams & Wilkins.

Nair, S., Sawant, N., Thippeswamy, H., & Desai, G. (2021). Gender issues in the care of elderly: A narrative review. *Indian Journal of Psychological Medicine, 43*(5), S48–S52. https://doi.org/10.1177/02537176211021530

Nakagawa, T., Gondo, Y., Masui, Y., Ishioka, Y.L., Tabuchi, M., Kamide, K., Ikebe, K., Arai, Y., & Takahashi, R. (2013). [Development of a Japanese version of the Valuation of Life (VOL) scale]. *Shinrigaku kenkyu:The Japanese Journal of Psychology, 84*(1), 37-46. https://doi.org/10.4992/jjpsy.84.37

Nedjat, S., Sahaf, R., Khankeh, H. R., Fadayevatan, R., Majdzadeh, R., & Karimlou, M. (2018). Life satisfaction as the main factor behind the elderly's health knowledge utilization: A qualitative study in an Iranian context. *Medical Journal of the Islamic Republic of Iran, 32*(1), 671-677. https://doi.org/10.14196/mjiri.32.115

Netuveli, G., & Blane, D. (2008). Quality of life in older ages. *British Medical Bulletin, 85,* 113-126. https://doi.org/10.1093/bmb/ldn003.

Nilsson, M. (1998). Ageing with joy or resigning to old age: older people's experiences of the quality of life in old age. *Health Care in Later Life, 3*(2), 94-110.

Odone, A., Gianfredi, V., Vigezzi, G. P., Amerio, A., Ardito, C., d'Errico, A., Stuckler, D. & Costa, G. (2021). Italian working group on retirement and health. Does retirement trigger depressive symptoms? A systematic review and meta-analysis. *Epidemiology and Psychiatric Sciences, 30,* Article e77. https://doi.org/10.1017/S2045796021000627

Osborne, J. W. (2012). Psychological effects of the transition to retirement. *Canadian Journal of Counselling and Psychotherapy, 46*(1), 45-58. https://files.eric.ed.gov/fulltext/EJ969555.pdf

Park, J. H., & Kang, S. W. (2022). Factors related to life satisfaction of older adults at home: A focus on residential conditions. *Healthcare, 10*(7), Article 1279. https://doi.org/10.3390/healthcare10071279

Psarrou, A., Adamakidou, T., Apostolara, P., Koreli, A., Drakopoulou, M., Plakas, S., Mastrogiannis, D., Mantoudi, A., Parissopoulos, S., Zartaloudi, A., & Mantzorou, M. (2023). Associations between physical activity and health-related quality of life among community-dwelling older adults: A cross-sectional study in urban Greece. *Geriatrics, 8*(3), Article 61. https://doi.org/10.3390/geriatrics8030061

Rinnan, E., André, B., Drageset, J., Garåsen, H., Espnes, G. A., & Haugan, G. (2018). Joy of life in nursing homes: A qualitative study of what constitutes the essence of joy of life in elderly individuals living in Norwegian nursing homes. *Scandinavian Journal of Caring Sciences, 32,* 1468–1476. https://doi.org/10.1111/scs.12598

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069–1081. https://doi.org/10.1037/0022-3514.57.6.1069

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online, 8*(2), 23-74. https://doi.org/10.23668/psycharchives.12784

Schumacher, R. E., & Lomax, R. G. (2010). *A beginner's guide to structural equation modeling: SEM.* Erlbaum.

Singh, A., & Misra, N. (2009). Loneliness, depression and sociability in old age. *Industrial Psychiatry Journal, 18*(1), 51–55. https://doi.org/10.4103/0972-6748.5786

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Allyn Bacon.

Talarska, D., Tobis, S., Kotkowiak, M., Strugała, M., Stanisławska, J., & Wieczorowska-Tobis, K. (2018). Determinants of quality of life and the need for support for the elderly with good physical and mental functioning. *Medical Science Monitor, 24,* 1604–1613. https://doi.org/10.12659/msm.907032

Thane, P. (2000). *Old age in English history: Past experiences, present issues.* OUP Oxford.

Turkey Statistical Institute. (2023). Address based population registration system. https://data.tuik.gov.tr/Bulten/Index?

Van Leeuwen, K. M., vanLoon, M. S., vanNes, F. A., Bosmans, J. E., de Vet, H. C. W., Ket, J. C. F., Widdershoven, G. A. M., & Ostelo, R. W. J. G. (2019). What does quality of life mean to older adults? A thematic synthesis. *PLOS One, 14*(3), Article e0213263. https://doi.org/10.1371/journal.pone.0213263

Veenhoven, R. (2008). Healthy happiness: Effects of happiness on physical health and the consequences for preventive health care. *Journal of Happiness Studies, 9,* 449–469. https://doi.org/10.1007/s10902-006-9042-1

World Health Organization. (2002). Active ageing: A policy framework. https://extranet.who.int/agefriendlyworld/wp-content/uploads/2014/06/WHO-Active-Ageing-Framework.pdf

World Health Organization. (2012, September). *Strategy and action plan for healthy ageing in Europe, 2012-2020.* https://iris.who.int/bitstream/handle/10665/336385/62wd10e-rev1-HealthyAgeing-122346.pdf

Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist,* 34(6), 806–838. https://doi.org/10.1177/0011000006288127

Wright, M. R., & Brown, S. L. (2017). Psychological well-being among older adults: The role of partnership status. *Journal of Marriage and the Family, 79*(3), 833–849. https://doi.org/10.1111/jomf.12375

Appendix
Joy of Life in Older Adulthood Scale

Brief Scale Guide: The following scale is a 5-point Likert scale (1: Strongly Disagree, 2: Disagree, 3: Neither Agree Nor Disagree, 4: Agree, 5: Strongly Agree). The scale is divided into 5 sub-scales:

1. Items 1-6 represent the "Losing Hope" sub-factor.
2. Items 7-11 represent the "Psychological collapse" sub-factor.
3. Items 12-14 represent the "Social Support" sub-factor.
4. Items 15-17 represent the "Family Support" sub-factor.
5. Items 18-20 represent the "Institutional Support" sub-factor.
6. Items 21-23 represent the "Adaptation" sub-factor.

No in the study	No	Expression	Strongly Disagree	Disagree	What I Agree What I disagree with	I agree	Strongly Agree
15	1	As I age, I feel increasingly useless.					
14	2	I feel like I have lost my freedom.					
56	3	Finding new friends has become more difficult as I have grown older adulthood.					
51	4	I feel like I am a burden to my children.					
7	5	I have no goals I wish to achieve in life.					
9	6	My energy for life diminishes as I get older adulthood.					
21	7	I have become upset by even very small things as I older adulthood.					
12	8	My stress levels increase as I get older adulthood.					
24	9	I struggle to control my emotions as I age.					
13	10	My sleep problems have worsened as I have gotten older adulthood.					
5	11	I feel sad about becoming more isolated as I age.					
41	12	As I get older adulthood, society has come to respect me more.					
31	13	As I age, people pay more attention to my opinions.					
40	14	Society's affection increases with age.					
16	15	Spending time with my children brings me joy.					
29	16	I spend better quality time with my family in older adulthood.					
6	17	Experiencing role changes (such as becoming a grandfather from being a father, transitioning from an active worker to a passive role) makes me happy.					
43	18	Health services for the older adulthood are adequate.					
44	19	Being a priority in healthcare makes me happy.					
42	20	Having social policies for the older adulthood by the government gives me reassurance.					
3	21	As I age, I have more opportunities to read my holy book.					
2	22	I allocate more time for my religious practices as I get older adulthood.					
28	23	I have started to dedicate more time to my hobbies in older adulthood.					