

*Original/Research Paper***Life satisfaction and related factors in older adults: A cross-sectional study**Fateme Jafaraghae ^a  | Roya Mansour-Ghanaei ^{b, c*}  | Hamid Mayeli ^c  | Zahra Atrkar-Roshan ^d 

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Abstract

This study aimed to evaluate life satisfaction and related factors in older adults. This cross-sectional study targeted elderly residents of the Guilan province in Iran. Data collection took place between February and May 2015. The demographic information questionnaire utilized in this study was a researcher-developed instrument. The life satisfaction questionnaire employed in this research was adapted from the 13-item life satisfaction index-Z (LSI-Z) questionnaire. A total of 160 elderly participants were involved, encompassing diverse demographic and socioeconomic profiles. Within the cohort, 51.2% self-identified as male, 38.1% possessed undergraduate degrees, 66.9% were in marital unions, and 68.1% were homeowners. Furthermore, 66.3% resided with their spouses. Approximately half of the participants (49.4%) reported an average economic standing, while 55.0% were categorized as unemployed. A noteworthy proportion (62.5%) acknowledged the presence of chronic medical conditions. Moreover, 71.3% did not partake in daily physical exercise regimens. The average life satisfaction score among the elderly population was 11.81 (SD=6.29). Additionally, findings indicated that 59.4% of the elderly participants reported a diminished level of life satisfaction. The examination uncovered no substantial differentiation in the mean aggregate life satisfaction scores between elderly males and females ($P=0.396$). Conversely, a notable contrast emerged in the mean life satisfaction scores across occupational classifications ($P<0.001$) within this investigation. Furthermore, significant variances were evident in the mean aggregate life satisfaction scores among four educational strata—specifically, illiterate, primary, secondary, and tertiary educational levels ($P<0.001$). Additionally, a significant association was observed between marital status and life satisfaction scores in the elderly ($P=0.001$). In conclusion, these findings underscore the significance of addressing multifaceted determinants influencing life satisfaction in older adults, emphasizing the need for tailored interventions targeting specific demographic groups to ameliorate disparities and enhance overall well-being in later life stages.

Keywords: Life Satisfaction, Older Adult, Elderly, Nursing, Nurses.**1 | Introduction**

The process of aging constitutes both a personal and societal phenomenon, subject to varying emotional responses among individuals [1]. While some may perceive aging with contentment, others may experience feelings of melancholy and ennui. It is imperative to acknowledge that these divergent emotional reactions are intricately intertwined with the cultural and societal milieu within which individuals reside [2]. In certain global regions, individuals attaining the age of 60 are classified as elderly. This delineation has been ratified by the United Nations as a recognized

threshold [3]. According to projections by the United Nations, the elderly population worldwide is anticipated to increase by over two-fold in the forthcoming four decades. Furthermore, within the subsequent five decades, it is estimated that the global elderly demographic will surpass two billion individuals [4].

The escalation in the elderly population presents a concomitant challenge in the endeavor to uphold and enhance life satisfaction [5]. Life satisfaction stands as a pivotal determinant of individual well-being, thus meriting scrutiny within healthcare systems owing to its intricate association with both physical and

mental health. Indeed, the assessment of life satisfaction among the elderly serves as a metric for evaluating the efficacy of healthcare provisions tailored to this demographic [6]. As per empirical findings, individuals exhibiting heightened levels of life satisfaction tend to employ more efficient and suitable coping mechanisms, undergo more profound emotional experiences, and demonstrate enhanced overall health. Conversely, dissatisfaction with life correlates with inferior health conditions, symptoms of depression, personality disorders, maladaptive health behaviors, and diminished social standing [7].

Given the paramount significance of life satisfaction among the elderly and recognizing the potential influence of regional culture and lifestyle on pertinent research aspects, this study was undertaken with the principal objective of assessing the levels of life satisfaction among older adults and exploring associated factors. The investigation sought to elucidate the multifaceted dimensions of life satisfaction within diverse regional contexts, thereby contributing to a nuanced understanding of this critical aspect of gerontology.

2 | Methods

2.1 | Study design and subjects

This cross-sectional study targeted elderly residents of the Guilan province in Iran. Inclusion criteria encompassed individuals aged 60 years and above who provided informed consent for their participation. Exclusion criteria were defined to exclude individuals with mental or cognitive disorders (e.g., dementia, Alzheimer's disease), debilitating illnesses resulting in significant dependency on care, and instances where participants either withdrew consent or expressed reluctance to continue cooperation during any phase of the study.

2.2 | Ethical consideration

The Research Ethics Committee of Guilan University of Medical Sciences confirmed this research (IR.GUMS.REC.1395.39). After obtaining permission from the hospital administration, the researchers visited the hospital. Verbal informed consent was obtained from participants.

2.3 | Sample size

In this current investigation, 160 elderly participants were selected using cluster random sampling. To address the primary research objective, a correlation analysis was considered suitable. Building upon Bagheri-Nesami's study [6] conducted in Iran, where a Pearson coefficient of 0.49 was reported for the correlation between self-efficacy and life satisfaction. With the total

sample size of 160 individuals distributed across clusters, it was estimated that approximately 40 participants would be selected from each cluster. This sampling approach was implemented while adhering to predefined inclusion and exclusion criteria and employing a cluster randomization method to ensure adequate representation among individuals aged 60 years and older.

2.4 | Data collection

Data collection took place between February and May 2015. The demographic information questionnaire utilized in this study was a researcher-developed instrument, encompassing inquiries concerning age, gender, educational attainment, socioeconomic status, employment status, marital status, homeownership, presence of chronic illnesses, and physical exercise habits. The life satisfaction questionnaire employed in this research was adapted from the 13-item life satisfaction index-Z (LSI-Z) questionnaire, initially devised in 1961 by Neugarten, Havighurst, and Tobin in Kansas City, in collaboration with the University of Chicago [8].

2.5 | Life satisfaction questionnaire

The prominent version typically referenced by scholars and employed in this study is the Z index, consisting of 13 questions structured one-dimensionality to evaluate life satisfaction among elderly individuals. Within the questionnaire, 5 items are negatively loaded (3-6-10-11-13), while the remainder demonstrates positive loading. Ultimately, life satisfaction is assessed on a scale spanning from 0 to 26, with higher scores indicating heightened satisfaction [9]. Designers of the instrument have categorized scores under 12, 13-21, and above 22 as indicative of low, medium, and high satisfaction levels, respectively [10]. In a study conducted by Tagharobi *et al.*, aimed at psychometrically analyzing the Z-form of the life satisfaction questionnaire among Iranian elderly individuals aged 60 years and older, the validity and reliability of the aforementioned questionnaire were evaluated [11]. The reliability of the instrument was assessed through re-testing, resulting in an ICC coefficient of 0.93 and a Cronbach's alpha coefficient of 0.79. Additionally, validity was established by comparing known groups of samples based on their responses to the life satisfaction question and employing an analysis of variance (ANOVA) test ($P < 0.001$). The designers of the instrument categorized scores under 12, 13-21, and above 22 as indicative of low, medium, and high satisfaction levels, respectively [10].

2.6 | Statistical analysis

The data analysis was conducted using the SPSS software package (version 16.0, SPSS Inc., Chicago, IL, USA). Continuous variables were reported as mean (standard deviation (SD)), while

categorical variables were represented as frequency (percentage). Statistical analyses were performed utilizing ANOVA and independent samples t-test as appropriate. The significance level was set at $P < 0.05$ to determine statistical significance.

3 | Results

3.1 | Participants' characteristics

As shown in Table 1, in this current investigation, a total of 160 elderly participants were involved, encompassing diverse demographic and socioeconomic profiles. Within the cohort, 51.2%

self-identified as male, 38.1% possessed undergraduate degrees, 66.9% were in marital unions, and 68.1% were homeowners. Furthermore, 66.3% resided with their spouses. Approximately half of the participants (49.4%) reported an average economic standing, while 55.0% were categorized as unemployed. A noteworthy proportion (62.5%) acknowledged the presence of chronic medical conditions. Moreover, 71.3% did not partake in daily physical exercise regimens.

Table 1. Demographic characteristics of older adults (N=160).

<u>Demographic characteristics</u>	Frequency (%) or Mean (SD)
Gender	
Male	82 (51.2)
Female	78 (48.8)
Education	
Illiterate	56 (35.0)
Under diploma	61 (38.1)
Diploma	33 (20.6)
Academic	10 (6.3)
Marital status	
Married	107 (66.9)
Single	4 (2.5)
Deceased spouse	44 (27.5)
Divorced	5 (3.1)
Homeownership status	
Owner	109 (68.1)
Children's House	21 (13.1)
Relatives house	1 (0.6)
Rental house	29 (18.1)
Living with	
Spouse	106 (66.3)
Children	31 (19.4)
Relatives	1 (0.6)
Alone	22 (13.7)
Economic status	
Low	59 (36.9)
Medium	79 (49.4)
High	22 (13.7)
Job	
Employed	18 (11.2)
Unemployed	88 (55.0)
Retired	54 (33.8)
Presence of chronic disease	
Yes	100 (62.5)
No	60 (37.5)
Doing daily exercise	
Yes	46 (28.7)
No	114 (71.3)
Level of life satisfaction	
Low	95 (59.4)
Medium	48 (30.0)
High	17 (10.6)
<u>Life satisfaction</u>	11.81 (SD=6.29)

SD: Standard Deviation.

Data are presented as number (percentage) and mean (standard deviation).

3.2 | Life satisfaction in older adults

As depicted in Table 1, the average life satisfaction score among the elderly population was 11.81 (SD=6.29). Additionally, findings indicated that 59.4% of the elderly participants reported a diminished level of life satisfaction.

3.3 | Factors associated with life satisfaction in older adults

As delineated in Table 2, the examination uncovered no substantial differentiation in the mean aggregate life satisfaction scores

between elderly males and females (P=0.396). Conversely, a notable contrast emerged in the mean life satisfaction scores across occupational classifications (P<0.001) within this investigation. Furthermore, significant variances were evident in the mean aggregate life satisfaction scores among four educational strata—specifically, illiterate, primary, secondary, and tertiary educational levels (P<0.001). Additionally, a significant association was observed between marital status and life satisfaction scores in the elderly (P=0.001).

Table 2. Life satisfaction and related factors in older adults (N=160).

	Mean (SD)	P-value
Gender		
Male	12.22 (SD=6.38)	0.396*
Female	11.37 (SD=6.21)	
Education		
Illiterate	7.96 (SD=5.56)	<0.001**
Under diploma	12.31 (SD=4.70)	
Diploma	14.55 (SD=6.18)	
Academic	21.20 (SD=2.82)	
Marital status		
Married	13.41 (SD=6.53)	0.001**
Single	11.50 (SD=3.79)	
Widow	8.00 (SD=4.25)	
Divorced	11.20 (SD=2.95)	
Job		
Employed	16.60 (SD=6.23)	<0.001**
Unemployed	9.67 (SD=5.38)	
Retired	13.87 (SD=6.39)	

SD: Standard Deviation.

Data are presented as number (percentage) and mean (standard deviation).

*P-values obtained with independent t-test.

**P-values obtained with ANOVA test.

4 | Discussion

The primary objective of this study was to examine life satisfaction among the elderly and associated factors. The findings of this investigation revealed that a majority of the elderly exhibit a diminished level of life satisfaction. Furthermore, the outcomes of this study indicated a noteworthy disparity in the life satisfaction levels of the elderly concerning variables such as educational status, economic standing, and employment status.

In a study undertaken by Bagheri-Nesami *et al.*, (2013) to examine the correlation between life satisfaction, self-efficacy, and social support among the elderly, significant associations were observed between mean life satisfaction and demographic factors including economic status and housing conditions. The findings indicated a direct correlation between life satisfaction and both social support and self-efficacy [6]. The study conducted by Babapour *et al.*, (2014) sought to investigate the association between social support and life satisfaction among elderly individuals re-

siding in nursing homes. The findings of this investigation revealed a significant correlation between social support and life satisfaction in this demographic. However, no statistically significant difference in life satisfaction was observed between male and female elderly residents [12].

In a descriptive and analytical study conducted by Papi & Cheraghi (2021), aimed at exploring the determinants of life satisfaction among the elderly, findings revealed significant associations between employment status and education level with life satisfaction. The study underscored suboptimal levels of life satisfaction among older individuals, highlighting the imperative for interventions aimed at enhancing life satisfaction within this demographic [13]. Consequently, strategies targeting social support, health and cognitive well-being, and engagement in daily activities were identified as influential factors contributing to the life satisfaction of the elderly.

4.1 | Limitations

The study's results may face susceptibility to sampling bias, given the recruitment of participants predominantly from a specific geographic region, potentially constraining the generalizability of the findings. Therefore, prudence is warranted in extrapolating these results to broader demographic cohorts, particularly those encompassing diverse cultural backgrounds, socio-economic strata, or health conditions.

4.2 | Recommendations for future research

It is recommended to undertake longitudinal investigations to examine the longitudinal trajectory of life satisfaction and its determinants among older adults. This approach offers potential insights into the evolving nature of life satisfaction and its associated factors over time. Furthermore, it is advised to implement intervention initiatives aimed at addressing modifiable factors such as social support, physical health, and cognitive functioning to augment life satisfaction among older adults. These interventions should be subjected to rigorous experimental designs to accurately assess their efficacy.

5 | Conclusions

In summary, the results gleaned from this investigation underscore a prevailing trend among the elderly populace, indicating a prevalent decline in levels of life satisfaction. Moreover, the study's outcomes elucidate a substantial variance in life satisfaction levels among older adults, particularly concerning demographic factors including educational attainment, economic status, and employment status. These findings underscore the significance of addressing multifaceted determinants influencing life satisfaction in older adults, emphasizing the need for tailored interventions targeting specific demographic groups to ameliorate disparities and enhance overall well-being in later life stages.

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Authors' contributions

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work: FG, RM, HM, ZA; Drafting the work or revising it critically for important intellectual content: FG, RM, HM, ZA; Final approval of the version to be published: FG, RM, HM, ZA; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: FG, RM, HM, ZA.

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Ethics approval and consent to participate

The Research Ethics Committee of Guilan University of Medical Sciences confirmed this research (IR.GUMS.REC.1395.39). After obtaining permission from the hospital administration, the researchers visited the hospital. Verbal informed consent was obtained from participants.

Competing interests

We do not have potential conflicts of interest with respect to the research, authorship, and publication of this article.

Availability of data and materials

The datasets used during the current study are available from the corresponding author on request.

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None.

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