

Grandchild Care and Adaptation to Aging: A Comparative Study Among Individuals Over 65 Years

Torun Bakımı ve Yaşlılığa Uyum: 65 Yaş Üstü Bireyler Arasında Karşılaştırmalı Bir Çalışma

Deniz Kaya Meral¹, Nihan Altan Sarıkaya²

¹Istanbul Sabahattin Zaim University Faculty of Health Sciences, Department of Nursing, İstanbul, Türkiye

²Trakya University Faculty of Health Sciences, Department of Mental Health and Disease Nursing, Edirne, Türkiye

Cite this article as: Kaya Meral D, Altan Sarıkaya N. Grandchild care and adaptation to aging: a comparative study among individuals over 65 years. J Acad Res Nurs. 2026;12(2):74-80

ABSTRACT

Objective: The purpose of this study is to examine the level of adaptation to old age among elderly individuals based on grandchild-rearing status and to analyze these levels in relation to specific variables.

Methods: This cross-sectional, descriptive-comparative study included 207 older adults aged 65 and over. Data were collected using the Assessment Scale of Adaptation Difficulty for the Elderly (ASADE) and a sociodemographic information form. Data were analyzed using SPSS 25.0. Differences between grandchild care and ASADE scores were evaluated using chi-square tests and independent-samples t-tests; differences across demographic variables were evaluated using t-tests and ANOVA.

Results: The ASADE total score of participants who cared for grandchildren (7.67 ± 6.86) was significantly lower than that of those who did not (15.63 ± 11.58) ($p < 0.001$), indicating better adaptation to aging among caregivers. Significant differences were also found in all ASADE subscales ($p < 0.001$). Among caregivers, being female, married, a high school graduate, without chronic illness, living with a spouse, and regularly socializing with friends were associated with better adaptation.

Conclusion: The findings suggest that caregiving for grandchildren may enhance psychosocial adaptation among older adults. This highlights the importance of strengthening social support systems and promoting active social roles for aging individuals.

Keywords: Grandchild care, older adults, psychosocial adjustment, social support

ÖZ

Amaç: Bu çalışmanın amacı, torun bakma durumuna göre yaşlı bireylerin yaşlılığa uyum düzeylerini ve bu düzeylerin bazı değişkenlere göre incelenmesidir.

Yöntem: Tanımlayıcı ve karşılaştırmalı tasarımda yürütülen bu kesitsel çalışmaya, 65 yaş ve üzeri 207 birey katılmıştır. Veriler, Yaşlılarda Uyum Güçlüğü Değerlendirme Ölçeği (ASADE) ve sosyodemografik bilgi formu ile toplanmıştır. Analizler, SPSS 25.0 programı kullanılarak gerçekleştirilmiştir. Torun bakımı ve ASADE puanları arasındaki farklar ki-kare ve bağımsız örneklem t-testi ile; demografik değişkenlere göre farklar t-testi ve ANOVA ile değerlendirilmiştir.

Bulgular: Torun bakan bireylerin ASADE toplam puanı ($7,67 \pm 6,86$), torun bakmayan bireylere ($15,63 \pm 11,58$) göre anlamlı düzeyde daha düşüktür ($p < 0,001$). ASADE alt boyutlarında da benzer şekilde anlamlı farklar bulunmuştur ($p < 0,001$). Torun bakan bireylerde kadın, evli, lise mezunu, kronik hastalığı olmayan, eşiyle yaşayan ve düzenli arkadaş ilişkileri olanların yaşlılığa uyum düzeyleri daha yüksektir.

Sonuç: Araştırma bulguları, torun bakımının yaşlı bireylerde psikososyal uyumu artırabileceğini ortaya koymaktadır. Bu durum, sosyal destek sistemlerinin güçlendirilmesi ve yaşlı bireylerin aktif toplumsal rollerle desteklenmesinin önemini vurgulamaktadır.

Anahtar kelimeler: Torun bakımı, yaşlılar, psikososyal uyum, sosyal destek

ORCID IDs: DKM. 0000-0002-7189-6022; NAS. 0000-0002-3678-6186



Corresponding Author: Deniz Kaya Meral,

E-mail: denizkayameral@gmail.com

Received Date: 04.11.2025 Accepted Date: 22.07.2026

Publication Date: 26.08.2026



Copyright© 2026 The Author(s). Published by Galenos Publishing House on behalf of University of Health Sciences Türkiye, Gaziosmanpaşa Training and Research Hospital. This is an open access article under the Creative Commons AttributionNonCommercial 4.0 International (CC BY-NC 4.0) License.

Copyright© 2026 Yazar(lar). Sağlık Bilimleri Üniversitesi, Gaziosmanpaşa Eğitim ve Araştırma Hastanesi adına Galenos Yayınevi tarafından yayımlanmıştır. Creative Commons Atıf-GayriTicari 4.0 Uluslararası (CC BY-NC 4.0) Uluslararası Lisansı ile lisanslanmış, açık erişimli bir makaledir.

INTRODUCTION

The global population is aging rapidly, creating significant challenges for public health and social policies. According to the World Health Organization, the number of individuals aged ≥ 60 years was approximately 1 billion in 2020 and is expected to reach 2.1 billion by 2050 ⁽¹⁾. In the European Union, 21.6% of the population was aged ≥ 65 years in 2024 ⁽²⁾. Similarly, in Türkiye, this proportion increased from 9.1% in 2019 to 10.6% in 2024 ⁽³⁾. These demographic trends emphasize the need to understand the factors that promote healthy and psychosocial adaptation in older adults ⁽⁴⁾.

Aging is not only a biological process but also a multidimensional life stage shaped by biological, psychological, social, and cultural dynamics ⁽⁵⁾. Concepts such as successful, healthy, and active aging emphasize not only longevity but also a meaningful and fulfilling life in older adults ⁽⁶⁾. From a theoretical perspective, Activity Theory suggests that older adults should maintain their previous levels of activity and remain engaged in social, physical, and leisure activities to support well-being in later life. Continuity theory emphasizes the importance of maintaining consistency in roles, relationships, and lifestyles while adapting to age-related changes. In addition, social exchange theory highlights that individuals' relationships are based on a balance between the resources they provide and the benefits they receive from others ⁽⁷⁾. Taken together, these theoretical approaches suggest that maintaining meaningful roles, social participation, and balanced interpersonal relationships play a central role in adapting to aging. Indicators of adjustment in old age include performing daily physical activities, psychological resilience, fulfilling roles, and establishing social relationships. It has also been noted that individuals who see their families daily, live with their spouses and children, and have a good income experience fewer adjustment difficulties ⁽⁸⁾.

With increased life expectancy and changing family structures, grandchild caregiving has become a prevalent and significant social role in later life. Older adults in many societies actively engage in childcare, which can enhance their well-being through social connections and a sense of purpose ^(9,10). However, excessive caregiving responsibilities and insufficient support may also lead to psychological burdens ⁽¹¹⁾. In line with this, Uğur ⁽¹²⁾ reported that while the caregiving process may be associated with psychological satisfaction for grandmothers, it can also become a demanding responsibility over time. Similarly, Cheng and Ariyo ⁽¹³⁾ found that grandparents who provide care for their grandchildren tend to report higher life satisfaction.

Although the effects of grandchild caregiving on mental health and life satisfaction have been examined in previous studies ^(9,14), its relationship with broader psychosocial outcomes, such as adaptation to aging, remains underexplored in the literature. This gap is particularly important, as adaptation to aging is conceptually related to psychological well-being and successful aging, which are consistently associated with active aging and quality of life

outcomes in the literature ^(15,16). Clarifying this association may contribute to a better understanding of psychosocial processes in later life and help inform interventions aimed at strengthening support systems for older adults in Türkiye.

Therefore, this study aimed to compare adaptation to aging levels among older adults aged 65 and over who do and do not provide grandchild care and to examine whether adaptation differs according to their demographic characteristics. This study specifically addressed the following questions:

1. Is there a significant difference in adaptation to aging between older adults who care for their grandchildren and those who do not?
2. Do levels of adaptation to aging differ according to demographic characteristics among older adults who care for their grandchildren and those who do not?

MATERIAL AND METHOD

Study Design

This study employed a comparative cross-sectional research design with a quantitative approach.

Participants

To compare adjustment difficulty scores between two independent groups (those caring for grandchildren and those not caring for grandchildren), the sample size was calculated using G*Power 3.1 based on an independent-samples t-test (two-tailed), assuming a medium effect size ($d=0.5$), a significance level of 5%, and 80% power ⁽¹⁷⁾. A minimum of 64 participants were required per group ($n=128$). However, the final sample size was larger because data collection continued during the study period, and more participants voluntarily agreed to participate, resulting in a total of 207 older adults.

Data Collection Procedure

A snowball sampling approach was employed ⁽¹⁸⁾. Initial participants were recruited through the researchers' networks and invited to share the survey link with other eligible participants. Eligibility was assessed using self-reported screening questions at the beginning of the online survey. The participants were asked to indicate whether they met the inclusion criteria and confirm that they could read, understand, and complete the questionnaire independently. No standardized cognitive assessment tool was used. As the study was conducted via an open online survey, the number of individuals who accessed the survey but did not complete it or who did not meet the inclusion criteria could not be determined. Data were collected online using Google Forms between October 30, 2024, and June 20, 2025. The inclusion criteria were as follows: age ≥ 65 years, residing in Türkiye, providing grandchild care for at least four hours a day or not providing care at all, having sufficient cognitive ability to complete the survey (operationalized as self-reported ability to read, understand, and independently complete the questionnaire), and volunteering to participate. Participants who met the inclusion

criteria accessed the survey after providing informed consent by clicking "I accept". To prevent multiple submissions, Google Forms settings were used to restrict responses to a single entry per participant. The study was conducted in accordance with the Personal Data Protection Law, ensuring the confidentiality and secure handling of participant data. Ethical approval was obtained, and all procedures complied with ethical research standards. Ethical approval for the study was obtained from the Ethics Committee of İstanbul Gelişim University (approval no: 2024-15-69, date: 30.10.2024). Before participation, all participants received information about the study's purpose and content. Informed consent was obtained from each participant through an online consent form that confirmed voluntary participation. Among the participants, 120 (58.0%) provided grandchild care, whereas 87 (42.0%) were not involved in caregiving.

Data Collection Instruments

Data were collected using two tools: a personal information form and the Assessment Scale of Adaptation Difficulty for the Elderly (ASADE).

Demographic Information Form: Developed by the researchers based on the literature, this form included items on participants' demographic and social characteristics such as age, gender, marital status, education level, income, chronic disease status, living arrangements, place of residence, and frequency of social contact ^(13,19,20).

ASADE: The ASADE, developed by Şişman and Kutlu ⁽²¹⁾ based on the Roy adaptation model, assesses adaptation to the aging process in the elderly. It consists of 24 items rated on a 4-point Likert scale (0=not at all, 3=a lot). Higher scores indicate greater difficulty in adapting to aging. The scale includes four subdimensions: role and self-actualization, interdependence, physiological state, and self-concept. Cronbach's alpha was 0.93 in the original study and 0.94 in the present study, indicating high reliability.

Statistical Analysis

Data were analyzed using the IBM SPSS Statistics software (version 25.0; IBM Corp., Armonk, NY, USA). Normality was tested using the Shapiro-Wilk test and by examining the skewness and kurtosis. The results indicated a normal distribution of the data. Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to summarize the participants' characteristics. Differences between individuals who cared for grandchildren and those who did not caring for grandchildren were analyzed using the chi-square and independent-samples t-tests. Group differences in the total and subscale ASADE scores were examined using independent-samples t-tests. In addition,

ASADE total scores were compared across demographic characteristics using t-tests and one-way analysis of variance, with the Scheffe post-hoc test used to identify significant differences.

RESULTS

Table 1 presents the participants' descriptive characteristics by caregiving status. The mean age of individuals who cared for their grandchildren was 67.79 ± 3.04 years, while it was 67.52 ± 3.16 years for those who did not. Among participants providing grandchild care, 68.3% were female, 89.2% were married, 58.3% were high school graduates, and 65.0% reported middle income. In this group, 80.0% reported no chronic illnesses, 69.2% lived with their spouses, 48.3% resided in the district, and 88.3% reported that they regularly saw friends. Of the participants who did not care for their grandchildren, 63.2% were female, 80.5% were married, 50.6% had a high school education, and 60.9% reported a moderate income. In this group, 73.6% had no chronic illness, 43.7% lived with their spouses, 44.8% resided in the district, and 69.0% reported seeing their friends regularly. The groups were similar in terms of demographic characteristics, except for living arrangements and the frequency of meeting friends. These differences were mainly driven by the non-caregiving group, which reported less frequent meetings with friends and was more likely to live alone (Table 1).

The comparative analysis of the ASADE total and subdimension scores between caregivers and non-caregivers is shown in Table 2. A significant difference was found in the total scores ($t = -6.18$, $p < 0.001$). Statistically significant differences were also observed in all subdimensions: role and self-actualization ($t = -5.05$, $p < 0.001$), interdependence ($t = -5.62$, $p < 0.001$), physiological state ($t = -5.28$, $p < 0.001$), and self-concept ($t = -5.29$, $p < 0.001$). The mean ASADE total score of the caregiving group was 7.68 ± 6.86 , compared with 15.63 ± 11.58 in the non-caregiving group. These results indicate that older adults who care for grandchildren have higher adaptation levels, as lower ASADE scores reflect better adaptation to aging (Table 2). The distribution of the ASADE total scores according to the participants' demographic and social characteristics is presented in Table 3. Among caregivers, those who were female, married, high school graduates, reported good or moderate income, had no chronic disease, lived with spouses, resided in a district, and regularly saw friends had significantly lower ASADE scores ($p < 0.05$), indicating better adaptation to aging. Among non-caregivers, no significant differences were found in terms of marital status, income, or place of residence ($p > 0.05$). However, participants in this group who were female, high school graduates, without chronic disease, living with spouses, and regularly seeing friends had significantly lower ASADE scores ($p < 0.05$) (Table 3).

Table 1. Descriptive Characteristics of Participants by Caregiving Status (n=207)				
Characteristic	All participants (n=207)	Grandchild caregivers (n=120)	Non-caregivers (n=87)	Difference between groups
Mean age (years)	67.681±3.090	67.791±3.045	67.528±3.161	p=0.547
	n (%)	n (%)	n (%)	
Gender				
Female	137 (66.2%)	82 (68.3%)	55 (63.2%)	p=0.443
Male	70 (33.8%)	38 (31.7%)	32 (36.8%)	
Marital status				
Married	177 (85.5%)	107 (89.2%)	70 (80.5%)	p=0.079
Single	30 (14.5%)	13 (10.8%)	17 (19.5%)	
Education level				
Primary school	45 (21.7%)	21 (17.5%)	24 (27.6%)	p=0.165
Middle school	8 (3.9%)	3 (2.5%)	5 (5.7%)	
High school	114 (55.1%)	70 (58.3%)	44 (50.6%)	
University and above	40 (19.3%)	26 (21.7%)	14 (16.1%)	
Income status				
Good	41 (19.8%)	23 (19.2%)	18 (20.7%)	p=0.824
Moderate	131 (63.3%)	78 (65%)	53 (60.9%)	
Poor	35 (16.9%)	19 (15.8%)	16 (18.4%)	
Presence of chronic disease				
Yes	47 (22.7%)	24 (20%)	23 (26.4%)	p=0.275
No	160 (77.3%)	96 (80%)	64 (73.6%)	
Living with				
Alone	23 (11.1%)	7 (5.8%)	16 (18.4%)	p=0.000*
With spouse	121 (58.5%)	83 (69.2%)	38 (43.7%)	
With spouse and child	63 (30.4%)	30 (25%)	33 (37.9%)	
Place of residence				
Village	12 (5.8%)	5 (4.2%)	7 (8%)	p=0.486
District	97 (46.9%)	58 (48.3%)	39 (44.8%)	
Province	98 (47.3%)	57 (47.5%)	41 (47.1%)	
Regularly meeting with a group of friends				
Yes	166 (80.2%)	106 (88.3%)	60 (69%)	p=0.001*
No	41 (19.8%)	14 (11.7%)	27 (31%)	
*: Statistical significance, n: Group sample size, p: Significance level, SD: Standard deviation				

*: Statistical significance, n: Group sample size, p: Significance level, SD: Standard deviation

Table 2. Comparison of ASADE Total and Subdimension Scores Between Caregivers and Non-caregivers (n=207)					
	All participants (n=207)	Grandchild caregivers (n=120)	Non-caregivers (n=87)	t	p-value
	Mean ± SD				
ASADE total score	11.019±9.93	7.675±6.86	15.632±11.58	-6.179	0.000*
Role and self-actualization	5.173±4.53	3.891±3.65	6.942±5.03	-5.052	0.000*
Interdependence	2.560±3.14	1.583±2.10	3.908±3.80	-5.618	0.000*
Physiological state	1.062±1.54	0.608±0.95	1.689±1.94	-5.283	0.000*
Self-concept	2.222±2.14	1.591±1.76	3.092±2.31	-5.294	0.000*

*: Statistical significance, t: Independent-samples t-test, p: Significance level, SD: Standard deviation, ASADE: Assessment Scale of Adaptation Difficulty for the Elderly

Table 3. ASADE Total Scores According to Demographic and Social Characteristics of Participants (n=207)

Variables	Grandchild caregivers (n=120)		Non-caregivers (n=87)	
	Mean (SD)	Test and p-value	Mean (SD)	Test and p-value
Gender				
Female	6.146±5.66	t=3.777 p=0.000*	13.636±12.18	t=2.151 p=0.034*
Male	10.973±8.06		19.062±9.71	
Marital status				
Married	7.000±6.39	t=-3.208 p=0.002*	14.642±11.93	t=-1.632 p=0.106
Single	13.230±8.26		19.705±9.238	
Education level				
Primary school ^a	12.571±9.07	f=4.788 p=0.004* ^c < ^a	19.208±9.70	f=3.553 p=0.018* ^c < ^a
Middle school ^b	8.000±5.56		18.600±13.12	
High school ^c	6.685±6.48		11.818±10.79	
University and above ^d	6.346±3.89		20.428±13.46	
Income status				
Good ^a	4.826±3.67	f=3.938 p=0.022* ^b , ^a < ^c	12.888±13.15	f=0.672 p=0.513
Moderate ^b	7.794±6.68		16.566±10.90	
Poor ^c	10.631±9.19		15.625±12.18	
Presence of chronic disease				
Yes	12.791±7.54	t=4.383 p=0.000*	20.652±9.74	t=2.496 p=0.014*
No	6.395±6.08		13.828±11.72	
Living with				
Alone ^a	13.428±7.99	f=3.821 p=0.025* ^b < ^a	20.375±9.31	f=5.034 p=0.009* ^b < ^a
With spouse ^b	6.759±6.21		11.447±7.97	
With spouse and child ^c	8.866±7.69		18.151±14.41	
Place of residence				
Village ^a	9.000±8.366	f=3.638 p=0.029* ^b < ^c	18.714±15.40	f=0.422 p=0.657
District ^b	5.965±5.56		14.615±12.08	
Province ^c	9.298±7.60		16.073±10.54	
Regularly meeting with a group of friends				
Yes	6.886±6.05	t=-3.633 p=0.000*	13.016±10.84	t=-3.317 p=0.001*
No	13.642±9.58		21.444±11.23	

*: Statistical significance, t: Independent-samples t-test, f: One-way analysis of variance, Difference (^{a,b,c}): Tukey's test, p: Significance level, SD: Standard deviation.

ASADE: Assessment Scale of Adaptation Difficulty for the Elderly

*: Statistical significance, t: Independent-samples t-test, f: One-way analysis of variance, Difference (^{a,b,c}): Tukey's test, p: Significance level, SD: Standard deviation, ASADE: Assessment Scale of Adaptation Difficulty for the Elderly

DISCUSSION

This study found that a difference in adaptation to aging was observed between older adults aged 65 years and over who care for grandchildren and those who do not. Analyses of the ASADE total and subdimension scores showed differences between the two groups in areas such as role and self-actualization, interdependence, physiological state, and self-concept. Grandparenting is associated with older adults' contributions to their families and provides a meaningful social role that reinforces social bonds and self-worth. These results suggest that active participation and maintenance of social roles may be linked to better psychosocial adjustment in later life. Moreover, this study uniquely applies the ASADE scale to the context of grandchild

care, contributing new evidence of the multidimensional structure of adaptation to aging.

The higher levels of adaptation observed among caregivers are consistent with previous studies showing that grandchild care promotes life satisfaction, self-worth, and psychological well-being⁽²²⁻²⁴⁾. This role may be associated with lower levels of social isolation and emotional distress by maintaining intergenerational connections. These findings also align with the role enhancement theory, which emphasizes that social engagement and meaningful responsibilities strengthen self-esteem and life satisfaction in old age^(13,25). However, role strain theory suggests that caregiving may become burdensome if responsibilities are intensive or resources are limited⁽²⁶⁾. Thus, the balance between role enrichment and

role overload may determine the overall effect of caregiving on adaptation to the disease. In addition, activity theory supports the notion that continued engagement in social and purposeful activities promotes psychosocial adjustment ^(27,28). In cultural contexts such as Türkiye, where intergenerational support is a social norm, the positive effects predicted by role enhancement theory may be particularly evident.

The association between caregiving and an active social life was also notable. Individuals caring for grandchildren were more likely to live with their spouses and meet friends regularly, reflecting higher levels of social interaction, which is an essential determinant of adaptation in older age. This observation supports prior evidence linking social ties to psychological well-being ^(29,30). Furthermore, caregivers who were female, married, high school graduates, with moderate to high income, free from chronic disease, and socially active showed better adaptation levels, suggesting that both structural and emotional support facilitate adjustment to caregiving. In contrast, among non-caregivers, the absence of significant differences across marital status, income, and place of residence suggests that psychosocial adaptation may be less influenced by social and demographic factors when caregiving roles are absent. Consistent with previous research, marital support ⁽³¹⁾, education ⁽³²⁾, and regular social contact ⁽³³⁾ enhance resilience and psychological balance in older adults. Furthermore, the absence of chronic illness ⁽³⁴⁾ and enhancement of coping capacity through education ^(32,35) are critical factors that contribute to the psychosocial balance of older adults, as supported by our results. In the context of this study, when grandchild care intersects with these factors, individuals may be able to maintain social ties, take on meaningful roles, and demonstrate multidimensional adaptation to aging.

This study contributes to the literature by being the first to apply the ASADE scale to the grandchild care context, demonstrating how caregiving intersects with social roles, self-concept and psychosocial well-being. The consistency of these findings with role enhancement and activity theories in the Turkish context also supports their cross-cultural validity in the Turkish context.

Study Limitations

This study had several limitations. The use of snowball sampling may limit the representativeness of the sample and introduce a selection bias. In addition, data were collected through an online survey, which may have excluded older adults without Internet access or adequate digital literacy, thereby limiting generalizability. The number of individuals who accessed but did not complete the survey or did not meet the inclusion criteria could not be determined. Cognitive status was assessed only through self-report, as no standardized cognitive assessment tools were used. As the data were self-reported, the findings may be subject to social desirability bias. Future longitudinal studies with larger and more diverse samples are recommended to examine the long-term psychosocial effects of grandchild caregiving.

CONCLUSION

Older adults who provide care for their grandchildren were found to have higher levels of adaptation to aging compared with those who do not. Grandchild care not only offers practical and emotional engagement but also provides a meaningful social role that strengthens self-esteem and social connections. These results emphasize the importance of developing support programs for older adults that acknowledge the protective and empowering nature of caregiving for grandchildren. Future studies should explore caregiving intensity, social support, and gender differences to gain a deeper understanding of how these roles influence adaptation to aging.

Ethics

Ethics Committee Approval: Ethical approval for the study was obtained from the Ethics Committee of İstanbul Gelişim University (approval no: 2024-15-69, date: 30.10.2024).

Informed Consent: Before participation, all participants received information about the study's purpose and content. Informed consent was obtained from each participant through an online consent form that confirmed voluntary participation.

Acknowledgments: The authors would like to thank all participants who voluntarily took part in this study for their valuable time and contributions.

Footnotes

Authorship Contributions

Concept: DKM, NAS; Design: DKM, NAS; Data Collection or Processing: DKM; Analysis or Interpretation: NAS; Literature Search: DKM, NAS; Writing: DKM, NAS.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

REFERENCES

1. World Health Organization (WHO). Ageing and health. [cited 29 July 2025]. Available from: <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health> [Crossref]
2. Eurostat. Population structure and ageing. [cited 29 July 2025]. Available from: https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Population_structure_and_ageing [Crossref]
3. Türkiye İstatistik Kurumu (TÜİK). Elderly statistics. [cited 29 July 2025]. Available from: <https://data.tuik.gov.tr/Bulten/Index?p=İstatistiklerle-Yaslılar-2024-54079> [Crossref]
4. Koosha M, Hezarjaribi J, Allameh H, Panahi MA, Lalegani A. Designing a policy model for enhancing social health of the elderly. *Arch Gerontol Geriatr Plus*. 2025; 2(2): 100149. [Crossref]
5. Gaviano L, Pili R, Petretto AD, Berti R, Carrogu GP, Pinna M, et al. Definitions of ageing according to the perspective of the psychology of ageing: a scoping review. *Geriatrics (Basel)*. 2024; 9(5): 107. [Crossref]
6. Menassa M, Stronks K, Khatmi F, Roa Díaz ZM, Espinola OP, Gamba M, et al. Concepts and definitions of healthy ageing: a systematic review and synthesis of theoretical models. *EClinicalMedicine*. 2023; 56: 101821. [Crossref]
7. Ünsal G, Avcı D, Duran, S. Toplum ruh sağlığı hemşireliği el kitabı. Ankara: Akademisyen Kitabevi; 2023. s. 350-4. [Crossref]
8. Akbal A. A sociological research on adaptation difficulty in old age and successful aging: the case of Gümüşhane province. *Gümüşhane Üniversitesi Sosyal Bilimler Dergisi*. 2023; 16(1): 22-37. [Crossref]
9. Chen L, Li Y, Yang Q. The effect of grandparenting on the depression and life satisfaction among middle-aged and older Chinese adults. *Int J Environ Res Public Health*. 2022; 19(17): 10790. [Crossref]

10. Barman A, Adhikary M, Sarode S. Does caring for grandchildren influence life satisfaction? A national-level analysis among older adults in India using a propensity score matching approach. *BMC Public Health*. 2025; 25(1): 2386. [\[Crossref\]](#)
11. Wang YH, Hu XL, Li Y. The impact of grandparenting on mental health among rural middle-aged and older adults in China: exploring the role of children's support. *Front Psychiatry*. 2024; 15: 1365271. [\[Crossref\]](#)
12. Uğur SB. The influence of grandchild care activity on the care provider, on the grandmothers' health. *Mediterranean Journal of Humanities*. 2018; 8(1): 399-415. [\[Crossref\]](#)
13. Cheng X, Ariyo T. Grandparenting and life satisfaction among Chinese elderlies: a study of possible mechanisms. *BMC Geriatr*. 2023; 23(1): 831. [\[Crossref\]](#)
14. Choi SE, Zhang Z. Caring as curing: grandparenting and depressive symptoms in China. *Soc Sci Med*. 2021; 289: 114452. [\[Crossref\]](#)
15. Marzo RR, Khanal P, Shrestha S, Mohan D, Myint PK, Su TT. Determinants of active aging and quality of life among older adults: systematic review. *Front Public Health*. 2023; 11: 1193789. [\[Crossref\]](#)
16. Ahmadiniko A, Zarea K, Ghanbari S, Alexander L. The relationship between successful aging, psychological well-being, and perceived social support in older people: a cross-sectional study. *Journal of Nursing Advances in Clinical Sciences*. 2026; 3(3): 149-56. [\[Crossref\]](#)
17. Cohen J. Statistical power analysis for the behavioral sciences. 2nd ed. United States of America: Lawrence Erlbaum Associates; 1988. [\[Crossref\]](#)
18. Handcock MS, Gile KJ. Comment: on the concept of snowball sampling. *Sociol Methodol*. 2011; 41(1): 367-71. [\[Crossref\]](#)
19. Cantekin ÖF, Arpacı F. The relationship between social inclusion and life satisfaction among Turkish older people. *Educational Gerontology*. 2023; 50(1): 1-10. [\[Crossref\]](#)
20. Liu M, Chang Y, Zhao S, Guo W, Ji X, Liu Y, et al. The effect of the interaction between intrinsic capacity and social support on the trajectories of activities of daily living in older adults. *Geriatr Nurs*. 2024; 60: 231-40. [\[Crossref\]](#)
21. Şişman FN, Kutlu Y. Development of an assessment scale of adaptation difficulty for the elderly (ASADE) and its psychometric properties. *J Psy Nurs*. 2016; 7(1): 25-33. [\[Crossref\]](#)
22. Danielsbacka M, Křenková L, Tanskanen AO. Grandparenting, health, and well-being: a systematic literature review. *Eur J Ageing*. 2022; 19(3): 341-68. [\[Crossref\]](#)
23. Dong X, Ling H, Yang T, Wang K. Grandchild care and life satisfaction of older adults: empirical evidence from China. *Front Psychol*. 2023; 14: 1081559. [\[Crossref\]](#)
24. Yang X, Yin D. The protective effect of caring for grandchildren on the mental health of the elderly: a structural equation modeling analysis. *Int J Environ Res Public Health*. 2022; 19(3): 1255. [\[Crossref\]](#)
25. Juma F, Fernández-Sainz A, Vercauteren T, Stegen H, Häussermann F, De Donder L, et al. Intensity and changes in grandparental caregiving: exploring the link to loneliness in Europe. *Arch Gerontol Geriatr*. 2025; 128: 105630. [\[Crossref\]](#)
26. Cristóbal LG, Noriega C, Pérez-Rojo G, López J. Supplementary grandparent caregiving and psychological wellbeing: the role of character strengths. *BMC Geriatr*. 2025; 25(1): 218. [\[Crossref\]](#)
27. Gao Y, Jia Z, Zhao L, Han S. The effect of activity participation in middle-aged and older people on the trajectory of depression in later life: national cohort study. *JMIR Public Health Surveill*. 2023; 9: e44682. [\[Crossref\]](#)
28. Morgan GS, Willmott M, Ben-Shlomo Y, Haase AM, Campbell RM. A life fulfilled: positively influencing physical activity in older adults - a systematic review and meta-ethnography. *BMC Public Health*. 2019; 19(1): 362. [\[Crossref\]](#)
29. Guo H, Sek-Yum Ngai S, Sun T. Social support and subjective well-being of noncustodial grandparent caregivers in urban China: the mediating roles of generative acts. *Geriatr Nurs*. 2023; 52: 98-105. [\[Crossref\]](#)
30. Noriega C, Velasco C, Pérez-Rojo G, López J. Character strengths and social support as protective factors between grandparents' caregiving and health-related quality of life. *J Child Fam Stud*. 2022; 31(9): 2505-17. [\[Crossref\]](#)
31. de la Rosa PA, Nakamura J, Cowden RG, Kim E, Osorio A, VanderWeele TJ. Longitudinal associations of spousal support and strain with health and well-being: an outcome-wide study of married older U.S. Adults. *Fam Process*. 2025; 64(1): e13057. [\[Crossref\]](#)
32. Antunes MCP, Maia EM. Successful ageing: contributions of non-formal (adult) education in a group of older people in Northern Portugal. *Educational Gerontology*. 2022; 49(7): 573-84. [\[Crossref\]](#)
33. Park JH, Kang SW. Social interaction and life satisfaction among older adults by age group. *Healthcare (Basel)*. 2023; 11(22): 2951. [\[Crossref\]](#)
34. Dong HJ, Larsson B, Dragioti E, Bernfort L, Levin LÅ, Gerdle B. Factors associated with life satisfaction in older adults with chronic pain (PainS65+). *J Pain Res*. 2020; 13: 475-89. [\[Crossref\]](#)
35. Schoultz M, Öhman J, Quennerstedt M. A review of research on the relationship between learning and health for older adults. *International Journal of Lifelong Education*. 2020; 39(5-6): 528-44. [\[Crossref\]](#)