

**ORIGINAL ARTICLE**

## Modeling the Mediating Role of Hardiness in the Relationship Between Leisure Time and Mental Health of the Elderly in Ahvaz

Hemmat Alla Bastami <sup>1</sup> , Reza Mohamadi <sup>2</sup> , Alireza Khalaf <sup>3</sup>

1. Assistant Professor, Department of Sports Management, Payame Noor University, Tehran, Iran.
2. PhD Student in Sports Management, Razi University, Kermanshah, Iran.
3. Master of Science in Sports Management, Payame Noor University of Garmsar, Semnan, Iran.

**Correspondence:**

Hemmat Alla Bastami  
Email: [bastami@pnu.ac.ir](mailto:bastami@pnu.ac.ir)

Receive Date: 11/Oct/2025

Revise Date: 18/Nov/2025

Accept Date: 18/Dec/2025

Publish Date: 22/Dec/2025

**How to cite:**

Bastami, H.A. Mohamadi, R & Khalaf, A. (2025). Modeling the Mediating Role of Hardiness in the Relationship Between Leisure Time and Mental Health of the Elderly in Ahvaz, *Education and Exploration in Learning, Behavior and Cognition*, 1 (1), 1-4. <https://doi.org/10.30473/elc.2026.77339.1007>

### ABSTRACT

The purpose of this study was to examine the effect of leisure time on mental health with the mediating role of hardiness among older adults in Ahvaz city. This research was applied in nature and employed a descriptive–correlational design using structural equation modeling. The statistical population consisted of older adults living in Ahvaz, from whom a sample was selected through convenience sampling. Data were collected using standardized questionnaires measuring leisure time, hardiness, and mental health. The validity and reliability of the instruments were confirmed. Data analysis was conducted using statistical software and structural equation modeling techniques. The results indicated that leisure time has a positive and significant direct effect on the mental health of older adults. In addition, hardiness showed a significant direct effect on mental health, and leisure time had a significant effect on hardiness. Furthermore, the findings revealed that hardiness plays a partial mediating role in the relationship between leisure time and mental health. The model fit indices demonstrated an acceptable fit of the proposed conceptual model. Overall, the findings suggest that increasing older adults' participation in leisure activities—particularly social and physical activities—along with strengthening positive psychological characteristics such as hardiness, can significantly improve their mental health. Therefore, planning and implementing structured leisure programs for older adults can be considered an effective strategy in sport management and health promotion policies for the aging population.

### KEYWORDS

Leisure Time, Mental Health, Hardiness, Older Adults, Sport Management.



## Introduction

Aging is a natural process requiring societal preparation and policy to integrate the elderly, valuing their knowledge and experience. Leisure time is an asset but needs management due to differing capabilities (Sho'ar, 1391, 1399). Population aging presents global social, economic, and health challenges, emphasizing quality of life and mental health (Bay & Lee, 2020). Aging brings changes impacting mental health, increasing risks of depression, anxiety, and loneliness (WHO, 2017). Enhancing elderly mental health reduces healthcare costs (Torabi et al., 1397).

Mental health is crucial for elderly adaptation, with risks of depression and reduced life satisfaction increasing with age. Active leisure, especially physical and social activities, improves mental health, reduces depression, and increases happiness (Lee & Farra, 2016; Andami-Khoshk, 1396). Regular physical activity in leisure time is linked to better mental health outcomes.

Psychological hardiness (commitment, control, challenge) buffers stress and enhances mental health (Hajhashemi et al., 2021). While hardiness can mediate the link between physical activity and psychological outcomes, its role in the leisure-mental health relationship among the elderly is under-researched. Understanding these relationships is vital for interventions, especially given elderly vulnerabilities like retirement and loneliness. This study aims to model the mediating role of hardiness in the leisure-mental health relationship for Iranian elderly in Ahvaz.

## Method

This study aimed to model the mediating role of hardiness in the relationship between leisure time and mental health among the elderly in Ahvaz. Employing an applied approach, it utilized a descriptive-correlational design with structural equation modeling (SEM). The statistical population comprised all elderly residents of Ahvaz, estimated at 600 individuals based on data from care centers and neighborhood centers. A sample of 224 participants was selected using Morgan's table and convenience sampling. Inclusion criteria included being 60 years or older, literate, free from cognitive impairments and terminal illnesses, and willing to participate voluntarily.

Data were collected using three standardized questionnaires: the Leisure Time Questionnaire (Gould et al., 2008), measuring persistence, effort, profession, customs, and identity; the Kobasa Hardiness Scale (1982), assessing commitment, control, and challenge; and the General Health Questionnaire (GHQ-28) (Goldberg & Williams, 1988), evaluating somatic symptoms, anxiety, social dysfunction, and depression. Content validity was confirmed by five experts in sports management and gerontology. Cronbach's alpha coefficients for the questionnaires were 0.88 (Leisure), 0.87 (Hardiness), and 0.91 (Mental Health), indicating good reliability.

After obtaining necessary permissions, questionnaires were distributed. Participants were informed about the study's purpose, data confidentiality, and voluntary nature, adhering to research ethics. Data were analyzed using descriptive statistics (mean, standard deviation, frequency) and inferential statistics (SEM) via SPSS24 and AMOS. Model fit was assessed using indices such as  $\chi^2/df$ , GFI, CFI, NFI, and RMSEA. The significance of indirect effects was examined using bootstrapping with 5000 resamples.

## Results

The study's findings indicate that the proposed model for the mental health of the elderly in Ahvaz, based on leisure time and the mediating role of hardiness, demonstrates excellent fit. This is supported by acceptable values for RMSEA, GFI, CFI, and NFI, as well as a favorable chi-square to degrees of freedom ratio. Factor loadings for all items and dimensions exceeded the threshold of 0.80, confirming the significant explanatory power of the model's constructs. Specifically, factor loadings between items, dimensions, and their respective variables for all components of the mental health model were above 0.30, and often above 0.60, indicating a desirable and appropriate relationship strength and explanatory power. Consequently, all survey items possessed the necessary explanatory power, and the data collection instrument was deemed to have very good technical characteristics (reliability and validity), as evidenced by Cronbach's alpha coefficients, factor loadings, and Composite Reliability (C.R.).

Path analysis revealed a significant direct causal effect of leisure time on the mental health of elderly residents in Ahvaz. The positive standardized path coefficient and a C.R. statistic significant at the 0.05 level suggest that increased participation in leisure activities leads to improved mental well-being.

Furthermore, hardiness was found to have a significant direct impact on the mental health of the elderly. Individuals with higher levels of hardiness reported better mental health, confirming hardiness's role as a protective factor against the psychological stressors of aging.

Leisure time also demonstrated a significant direct influence on the hardiness of the elderly, with a high standardized path coefficient indicating the effective role of leisure activities in strengthening positive personality traits. The indirect effect of leisure time on mental health via hardiness was found to be 0.089, and the total effect was 0.390. Compared to the direct effect (0.302), this represents a substantial increase, thus confirming the partial mediating role of hardiness in the mental health model for the elderly in Ahvaz.

In conclusion, the research model is well-fitted, and all hypotheses were supported at the significance level. These findings suggest that sports management and elderly health policymakers should design and implement leisure programs that purposefully aim to enhance positive psychological characteristics.

## Discussion and conclusion

The study found that leisure activities significantly enhance hardiness in the elderly, likely by fostering problem-solving and social interaction, thus boosting cognitive and behavioral flexibility. Hardiness partially mediates the positive relationship between leisure and mental health, meaning leisure benefits mental well-being both directly and by strengthening psychological resources. This suggests interventions should integrate promoting leisure with building hardiness skills (e.g., cognitive restructuring). Theoretically, this expands the activity theory by incorporating psychological factors. Practically, a dual focus on engaging leisure and cultivating hardiness is recommended for holistic mental well-being in seniors. Discrepancies with prior research may stem from differing analytical methods.

### **Funding**

This research received no specific funding from any public, commercial, or not-for-profit agency.

### **Authors' Contribution**

The authors was responsible for the study's conceptualization, methodology, data collection, analysis, writing, and final approval of the manuscript.

### **Conflict of Interest**

The authors declares no conflict of interest regarding the publication of this article.

### **Acknowledgments**

The authors would like to express gratitude to all researchers whose scholarly works contributed to the theoretical and empirical foundations of this study.

### **Reference**

- Lee, Y., & Ferraro, K. F. (2016). Leisure activity and psychological well-being in later life. *Journal of Aging and Health*, 28(2), 271–293.
- Lee JH, Lee JH, Park SH. Leisure activity participation as predictor of quality of life in Korean Urban-dwelling elderly, *Occupational Therapy International*. 2018; 21(3):124-32.
- Shoar, Mohammad Mahdi (1399). Anthropological study of the way the elderly spend their leisure time in Tehran parks (Case study: Park City). 6th International Conference on Management and Accounting Sciences, Tehran, 22(2): 159-170. (In Persian)
- Toraby Betoool, Mohammadi Mojtabi, Abozadeh Ghatabi Khadije, Qanbari Akram. (1397). Investigation of the prevalence of inappropriate drug prescribing and polypharmacy in hospitalized elderly in Sabzevar city hospital in 2017. *Gerontological Studies*. 3(1): 48-5565. (In Persian)
- Andami Khoshk, M. (2014). The role of leisure activities in mental health. *Journal of Social Psychology Studies*, 6(2), 45–60. (In Persian)
- Hashemi, A., & Aini, M. (2019). Leisure participation and mental health in older adults. *Journal of Applied Sport Sciences*, 11(4), 101–118. (In Persian)