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Investigating Social and Psychological Factors Affecting Elderly Participation in Physical Activity and Well-being

Borzo Zarinejhad [1], Saeed Ghorbani [2]*, Amir Dana [3]

[1.] Department of Physical Education, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, Iran.
[2.] Department of Physical Education, Islamshahr Branch, Islamic Azad University, Islamshahr, Iran (Corresponding Author).
[3.] Department of Physical Education, Tabriz Branch, Islamic Azad University, Tabriz, Iran.

*** Corresponding author email address**: Saeedghorbani_ur@yahoo.com

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A B S T R A C T

Purpose: The aim of this study was to investigate the social and psychological factors influencing elderly participation in physical activity and well-being.

Methods and Materials: This research utilized a mixed-methods approach (qualitative and quantitative). In the qualitative phase, 17 to 20 experts from the fields of sports management were selected based on predefined criteria as the first-stage population. Semi-structured interviews along with open-ended questionnaires were conducted to gather their insights. In the quantitative phase, which involved testing the research model among the elderly in Golestan Province, random sampling methods were employed. The population consisted of all elderly individuals in Golestan Province, though the exact number was unknown at the time of the study. In the quantitative phase, given the absence of precise statistical data on the population, a sample of 384 individuals was determined (based on Cochran's sample size formula). In this study, the Delphi method and structural equation modeling (SEM) were used to demonstrate the relationships among the research variables within a comprehensive model.

Findings: The results of this study identified 43 indicators grouped into 9 main factors as elements of elderly participation in physical activity and sport, with the relationships among them also confirmed. According to the findings, the overall fit of the model was 0.412, indicating a strong model fit. Based on the results of the Friedman test, economic issues ranked first, promotion ranked second, environmental attractiveness ranked third, and facilities and equipment ranked fourth. Furthermore, maintaining health ranked fifth, communication networks sixth, socio-cultural factors seventh, elderly women's sports eighth, and individual factors ranked ninth.

Conclusion: In general, it can be stated that due to the lack of principled and regulated methods for elderly participation in physical activity and sport, the absence of an appropriate environment for the physical and sports development of the elderly, and the lack of a framework for enhancing their participation, the elderly participation model in physical activity and sport presented in this study, comprising 9 dimensions and 43 components, can effectively improve the awareness, attitudes, and intentions of the elderly in participating in physical activity and sport.

Keywords: *Participation in sports activities, elderly, environmental factors, leisure time.*

1. Introduction

The growing population of older adults is a global phenomenon with significant social, economic, and health implications. As life expectancy continues to rise, ensuring a high quality of life for aging populations has become a key objective for governments and health organizations. One critical element of successful aging is the maintenance of physical activity (PA), which has been shown to offer a wide array of health benefits for older adults, including improved physical functioning, mental health, and overall well-being (Aaltonen et al., 2020).

Physical activity is crucial for the maintenance of physical and cognitive health in later life. Numerous studies have demonstrated that regular PA can delay the onset of chronic diseases, reduce the risk of falls, and enhance psychological well-being (Baniasadi, 2024; Bechard et al., 2020; Fahim et al., 2022; Keramati, 2021; Ofem, 2023). For example, Aaltonen et al. (2020) found that older adults who engaged in regular physical activity, as measured by accelerometers, had significantly better physical health outcomes and were more likely to maintain independence (Aaltonen et al., 2020). Moreover, Antunes et al. (2018) highlighted that PA can contribute to better mental health, reducing symptoms of depression and anxiety among older adults (Antunes et al., 2018). These findings show the importance of fostering environments and systems that support the engagement of older adults in physical activity.

Yet, the benefits of physical activity go beyond physical and mental health. Regular engagement in PA has been linked to improved social well-being by fostering social interactions and creating a sense of community among participants (Ferrand et al., 2012). Group-based exercise programs, in particular, offer older adults the opportunity to socialize while engaging in health-promoting behaviors, which can reduce feelings of loneliness and isolation, common issues among aging populations (Báez et al., 2016). This social dimension of physical activity is essential for promoting holistic health among older adults, emphasizing the interconnectedness of physical, mental, and social health.

Despite the clear benefits of physical activity, several barriers prevent older adults from participating in regular PA. These barriers can be physical, psychological, social, or environmental. Studies have shown that older adults often face physical limitations, such as joint pain, muscle weakness, or chronic diseases, which can hinder their ability to engage in PA (H. Lee et al., 2020; S. Lee et al., 2020). For example, Koo et al. (2016) identified mobility issues and physical disabilities as key barriers to PA among older adults (Koo et al., 2016). Similarly, studies by Germain et al. (2016) and Rech et al. (2018) revealed that functional limitations, particularly those related to balance and strength, deter older adults from engaging in physical activity (Germain et al., 2016).

Moreover, psychological factors such as lack of motivation, fear of injury, and low self-efficacy also play significant roles in deterring older adults from PA participation (McMahon et al., 2017; McMahon, Vankipuram, & Fleury, 2013; McMahon, Vankipuram, et al., 2013). Older adults often experience a decline in confidence regarding their physical abilities, leading to a fear of falling or exacerbating pre-existing conditions, which further discourages them from engaging in PA (Whipple et al., 2019). Huffman et al. (2010) found that older adults with conditions such as arthritis or diabetes were less likely to engage in PA due to concerns about pain or worsening their health conditions (Huffman et al., 2010). Additionally, the perceived lack of social support and motivation has been noted as a major psychological barrier to PA among older adults (Bechard et al., 2020; Harrison et al., 2020).

Social and environmental factors further exacerbate these challenges. For instance, Cavill and Foster (2018) pointed out that access to appropriate PA facilities and programs is often limited for older adults, particularly those living in rural or underserved areas (Cavill & Foster, 2018). The availability of safe, accessible spaces for PA is crucial in facilitating the participation of older adults, and without such spaces, many older adults are left without the means to engage in regular exercise. Studies by Lee et al. (2020) and Goethals et al. (2020) also highlighted that the lack of tailored PA programs for older adults, along with social isolation, significantly reduces their willingness to participate in physical activity (Goethals et al., 2020).

In contrast to these barriers, several factors can motivate older adults to engage in physical activity. Motivators can be intrinsic, such as the desire to improve one's health or maintain independence, or extrinsic, such as social support or the influence of peers. According to self-determination theory (SDT), individuals are more likely to engage in and sustain behaviors, including PA, when they are autonomously motivated—meaning that they participate out of personal interest or value (Ferrand et al., 2012; Kritz et al., 2021). Autonomous motivation has been shown to be a key driver of sustained PA among older adults, as it fosters a sense of personal control and satisfaction in their participation (Arnautovska et al., 2019).

Peer influence and social support are also critical in motivating older adults to engage in PA. Studies by Kritz et al. (2021) and Robertson et al. (2022) revealed that older adults are more likely to participate in physical activity when they feel supported by their peers or family members (Kritz et al., 2021; Robertson et al., 2022). Group-based PA programs, which provide a supportive environment and opportunities for social interaction, have been particularly successful in motivating older adults to engage in PA (Báez et al., 2016; Royse et al., 2023). These programs not only encourage PA participation but also help to mitigate the social isolation that many older adults experience.

Another important motivator for PA among older adults is the desire to maintain physical and cognitive health. Research has shown that older adults who are aware of the health benefits of PA, particularly in terms of preventing cognitive decline and improving mental health, are more likely to engage in regular physical activity (Chen, 2024). Programs that emphasize the health benefits of PA, particularly in relation to cognitive function and independence, are effective in increasing PA participation among older adults (Silva, 2022). Furthermore, the use of technology, such as wearable activity trackers, has been shown to enhance motivation and adherence to PA programs among older adults, as it allows them to track their progress and set personal goals (Jansen-Kosterink et al., 2020; Kononova et al., 2018).

The design and structure of physical activity programs play a significant role in promoting older adults' participation in PA. Studies have shown that programs that are specifically tailored to the needs and abilities of older adults are more successful in encouraging sustained participation (Antunes et al., 2018; Petrella et al., 2017). For example, Ofli et al. (2016) demonstrated that interactive exercise programs designed for older adults, which combine physical training with social interaction, significantly improve both adherence and outcomes in terms of physical and social well-being (Ofli et al., 2016). Similarly, studies by Jansen-Kosterink et al. (2020) and Silveira et al. (2013) found that mHealth applications and technology-based interventions can motivate older adults to engage in PA by providing personalized feedback and rewards for participation (Jansen-Kosterink et al., 2020; Silveira et al., 2013).

Environmental factors, such as the availability of safe and accessible spaces for physical activity, are also crucial in facilitating PA among older adults (S. Lee et al., 2020). Research by Cavill and Foster (2018) and Goethals et al. (2020) highlighted the importance of creating age-friendly environments that support physical activity by offering well-maintained parks, walking trails,

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and community centers (Cavill & Foster, 2018). These spaces provide older adults with opportunities to engage in PA in a safe and supportive environment, which is particularly important for those who may be concerned about their physical limitations or safety. However, despite these known advantages, many older adults remain physically inactive, which poses a challenge to public health initiatives aimed at promoting active aging. Therefore, this study aims to investigate the social and psychological factors that influence older adults' participation in physical activity and well-being.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a mixed-methods approach (qualitative and quantitative), following an exploratory sequential design, with a developmental-applied aim. In the qualitative phase, a purposive (judgmental) sampling method was used. In other words, to achieve the research objectives and answer the proposed questions, the opinions of experts were utilized based on purposive or judgmental sampling. In this study, 17 to 20 academic experts in the field of sports management were selected as the initial population based on predefined criteria. Data were collected from these experts through semi-structured interviews and open-ended questionnaires. Sampling continued until data saturation was achieved, meaning that additional samples no longer provided new information to the existing themes.

In the quantitative phase of the study, which involved implementing the research model among elderly individuals in Golestan Province, random sampling methods were employed. The target population in this phase was all elderly residents of Golestan Province, although the exact population size was unknown at the time of the study. Given the lack of precise statistical data on the population, a sample size of 384 individuals was determined using Cochran's sample size formula to ensure sample adequacy. A geographical cluster sampling method was employed.

2.2. Data Collection

Two tools were used to collect data in this study: qualitative and quantitative instruments. The qualitative tools included document review, texts, and interviews, while the quantitative tool was a questionnaire derived from the interviews. In the first phase, semi-structured interviews and open-ended questionnaires were used. The researcher played a crucial role during the interviews, employing emotional and physical techniques to explore scientific findings and access the private world of the participants. The interview guide focused on specific issues or areas that needed to be covered, and the direction to be followed was outlined in advance. In this study, the questions were written in an open-ended format, and interviewees were guided through the process, which lasted between 60 and 90 minutes, to express the factors affecting elderly participation in physical activity and to identify the dimensions and elements of this participation.

In the second phase, a closed-ended questionnaire was developed based on the results of the first phase. This questionnaire was designed to operationalize the model within the research population and was used to extract relationships between variables and present the research model in its operational form (assessing the current situation) in Golestan Province.

The data collection tools in this study were developed based on a review of literature, theoretical foundations, previous studies, books, articles, and theses, as well as consultations with and reviews of expert opinions. In the qualitative phase, interviews were the primary data collection tool, which is considered a core component of exploratory mixed-methods research. Open-ended interviews were employed to identify the factors affecting elderly participation in physical activity and sports. The reason for using this method was that it not only allowed for the exchange of ideas and perspectives but also provided the flexibility to steer the conversation toward the research objectives. Furthermore, the interview process enabled the observation of emotions and provided insight into participants' beliefs and perceptions about the research topic.

Simultaneously with conducting the interviews and collecting data, the data were also coded. Coding refers to assigning labels to different parts of the data to indicate what each piece relates to. Through open coding, the interview texts were read line by line multiple times, generating numerous codes. During the ongoing comparative analysis of the data, these initial qualitative codes were merged due to their semantic similarity or redundancy and were distilled into fewer concepts. In axial coding, the coding process shifted from open to more selective, resulting in a more focused set of codes. The Delphi technique was applied with the participation of 15 to 20 experts in the field of sports management.

The data collection tool in the quantitative phase was a researcher-made questionnaire. With input from the current research team (supervisors and advisors) and other experts in the field of sports management, the elements and components of elderly participation in physical activity and sports were selected for inclusion in the final questionnaire, which was then distributed to the sample population.

2.3. Data Analysis

In this study, quantitative data analysis was conducted using the chi-square test to examine relationships between variables, regression analysis to determine the strength of variable influences, factor analysis, and path analysis. Structural equation modeling (SEM) was employed to illustrate the relationships among the research variables in a comprehensive model. Smart PLS software was used to perform the SEM-related analyses, which included factor analysis calculations and the interaction coefficients between the variables. The output of this process was presented graphically, providing a more precise framework for understanding the relationships between variables.

3. Findings and Results

Data extracted from library sources, tables, and expert opinions were organized, and duplicate or similar items were removed, with the final results presented in

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Table 1. The study identified 43 indicators categorized into 9 main factors as the key elements of elderly participation in physical activity and sports.

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Table 1
Final Dimensions and Elements of the Study

Row	Dimension	Elements of Elderly Participation in Physical Activity and Sports
1	Communication Network	Group affiliation, peer group and collectivism, athlete recommendations, physician and sports expert recommendations, encouragement from children
2	Promotion	Social media marketing, media culture-building, media information dissemination, promotion of public sports, awareness of exercise benefits, educational posters
3	Environmental Attractiveness	Emotional release, aesthetic environment and educational space, senior and elderly sports competitions, cheerful and attractive environment, play opportunities
4	Facilities and Equipment	Special equipment for the elderly, easy access, service quality, comfort and convenience, standard sports venues and infrastructure
5	Elderly Women's Sports	Preservation of elderly women's dignity, designated sports areas for elderly women, security and safety of women's sports venues
6	Cultural-Social Factors	Community culture, social capital, attitudes toward public sports, preservation of individual dignity
7	Economic Issues	Exercise costs, transportation costs, free services, financial incentives, prizes, free clothing distribution, free on-site medical services, free food distribution
8	Health Preservation	Health management, appearance improvement and weight reduction, physical fitness improvement, desire to maintain health
9	Individual Factors	Education, sports activity history, household income level

Table 2 presents the reliability assessment of the study variables, and the results show that all Cronbach's alpha values and composite reliability (CR) values for all variables and their subcomponents were above 0.7, indicating high and acceptable reliability.

Table 2
Cronbach's Alpha Scores

Scale/Subscale	Composite Reliability (CR)	Cronbach's Alpha ($\alpha > 0.7$)
Elderly Participation in Sports	0.936	0.886
Communication Network	0.778	0.772
Promotion	0.812	0.774
Environmental Attractiveness	0.737	0.738
Facilities and Equipment	0.768	0.766
Elderly Women's Sports	0.792	0.766
Cultural-Social Factors	0.855	0.850
Economic Issues	0.788	0.777
Health Preservation	0.878	0.872
Individual Factors	0.731	0.724

According to the findings, the standardized coefficients for all subcomponents were greater than 0.4, indicating that all values have acceptable factor loadings. The critical value (t-statistic) for all variables and subcomponents was greater than 2, confirming the significance of all variables and subcomponents at a 0.05 confidence level. As shown in Table 3, the elderly participation in physical activity and sports model and its elements all had acceptable t-values ($t > 1.98$). In other words, the presence of t-values greater than 2 for all path coefficients except for the decisiveness variable indicates that all the studied constructs were measured effectively with the questions. Thus, the results obtained from the questions for each construct can be considered valid and analyzable because they precisely measured what the researcher intended and all respondents had a consistent understanding of the questions. Therefore, the nine dimensions explain the elderly participation in physical activity and sports model.

Table 3
Measurement Model Coefficients for Direct Relationships in the Proposed Model

Relationships	Standard Coefficient	t-statistic	Significance Level	Result
Communication Network → Elderly Sports Participation	0.206	8.251	0.1	Confirmed
Promotion → Elderly Sports Participation	0.113	5.090	0.1	Confirmed
Environmental Attractiveness → Elderly Sports Participation	0.163	9.545	0.1	Confirmed
Facilities and Equipment → Elderly Sports Participation	0.135	7.417	0.1	Confirmed
Elderly Women's Sports → Elderly Sports Participation	0.088	4.403	0.1	Confirmed
Cultural-Social Factors → Elderly Sports Participation	0.108	6.173	0.1	Confirmed
Economic Issues → Elderly Sports Participation	0.266	8.228	0.1	Confirmed
Health Preservation → Elderly Sports Participation	0.162	7.382	0.1	Confirmed
Individual Factors → Elderly Sports Participation	0.098	3.850	0.1	Confirmed

According to the results presented in Table 4, the overall goodness-of-fit index (GOF) was 0.412, indicating a strong overall model fit. Furthermore, all fit criteria were deemed satisfactory, confirming the model's goodness of fit.

Table 4
Fit Indices for the Research Model

Fit Indices	Value	Minimum Acceptable Value
Chi-square to Degrees of Freedom Ratio	0.899	Ideally, 1
Root Mean Square Error of Approximation (RMSEA)	0.089	Less than 0.1

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Goodness-of-Fit Index (GFI)	0.9	0.9
Root Mean Square Residual (RMR)	0.131	The closer to zero, the better the fit
Comparative Fit Index (CFI)	0.94	0.9
Goodness-of-Fit (GOF)	0.412	Ideally above 0.4

The Friedman test was used to rank the factors. Table 5 presents the significance of the Friedman test results, indicating that the significance level was less than 0.05, confirming differences between the factors.

Table 5
Friedman Test Significance

Index	Degrees of Freedom	Chi-Square (X^2)	Significance Level (p)
Elderly Participation in Physical Activity and Sports	8	2540.63	0.001

Based on the results of the Friedman test presented in Table 6, economic issues ranked first, promotion ranked second, environmental attractiveness ranked third, and facilities and equipment ranked fourth. Additionally, health preservation ranked fifth, communication network ranked sixth, cultural-social factors ranked seventh, elderly women's sports ranked eighth, and individual factors ranked ninth.

Table 6
Mean Rankings of Elements of Elderly Participation in Physical Activity and Sports in the Friedman Test

Elderly Participation in Physical Activity and Sports	Mean Rank	Rank
Communication Network	5.19	Sixth
Promotion	6.34	Second
Environmental Attractiveness	6.22	Third
Facilities and Equipment	5.98	Fourth
Elderly Women's Sports	1.57	Eighth
Cultural-Social Factors	3.28	Seventh
Economic Issues	8.96	First
Health Preservation	5.96	Fifth
Individual Factors	1.50	Ninth

4. Discussion and Conclusion

The results of this study provide significant insights into the social and psychological factors affecting elderly participation in PA and well-being. The identification of 43 indicators grouped into nine main factors contributes to the understanding of the multidimensional influences on elderly PA engagement. These findings are consistent with previous studies emphasizing the complexity of factors influencing PA behavior in older adults. The analysis revealed a strong model fit, as indicated by the goodness-of-fit index (GFI) of 0.412, suggesting that the proposed model adequately represents the relationships among the identified factors and their effects on PA participation.

The study found that economic issues ranked as the most significant factor influencing elderly participation in PA. This finding aligns with the results of earlier studies that emphasized financial constraints as a major barrier to PA engagement among older adults. Cavill and Foster (2018) highlighted that the cost of participation in structured PA programs, transportation expenses, and the need for specialized equipment can limit older adults' access to exercise opportunities, particularly for those with lower socioeconomic status (Cavill & Foster, 2018). Additionally, Devereux-Fitzgerald et al. (2021) noted that older adults living in lower socioeconomic areas often face barriers related to affordability and access to safe and suitable PA facilities, which further underscores the importance of addressing economic factors in promoting PA among this population (Devereux-Fitzgerald et al., 2021).

Promotion and environmental attractiveness were the second and third most significant factors, respectively. These findings highlight the importance of creating a supportive environment that encourages elderly participation in PA through effective promotion and the design of age-friendly spaces. Studies have shown that promotional efforts that target older adults and emphasize the specific health benefits of PA for this age group are effective in increasing PA participation (Goethals et al., 2020; Silva, 2022). Furthermore, the physical environment plays a crucial role in facilitating PA among older adults. The availability of parks, walking trails, and community centers has been found to enhance PA engagement by providing safe, accessible, and attractive spaces for exercise (Cavill & Foster, 2018; H. Lee et al., 2020; S. Lee et al., 2020). This is particularly important for older adults, who may feel more vulnerable to injury or isolation in less supportive environments.

The fourth-ranked factor, availability of facilities and equipment, supports findings from studies such as those by Petrella et al. (2017) and Janols et al. (2022), which identified the lack of appropriate facilities as a significant barrier to PA participation among older adults (Janols et al., 2022; Petrella et al., 2017). Access to well-maintained, age-appropriate facilities, such as senior gyms or community-based exercise programs, has been shown to encourage PA participation and improve health outcomes in older adults. Additionally, ensuring that facilities are designed with older adults' physical limitations in mind can further promote their participation in regular exercise (Thomas, 2023).

The fifth-ranked factor, health preservation, also emerged as a critical motivator for older adults to engage in PA. Previous research has consistently shown that older adults are motivated to participate in PA due to its potential to prevent or mitigate health issues, including chronic diseases, falls, and cognitive decline (Chen, 2024; Huffman et al., 2010). For example, Bechard et al. (2020) found that older adults with mild cognitive impairment or Alzheimer's disease, as well as their care partners, viewed PA as an essential component of maintaining physical and cognitive health (Bechard et al., 2020). This is consistent with studies that emphasize the role of PA in promoting health and independence in older adults (Ferrand et al., 2012).

The sixth factor, communication networks, reflects the importance of social support in promoting PA participation among older adults. Several studies have shown that social interactions,

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particularly in group-based PA settings, are highly effective in encouraging older adults to engage in and sustain PA behaviors (Báez et al., 2016; Robertson et al., 2022). Social support from peers, family members, and exercise instructors can enhance motivation and adherence to PA programs by providing a sense of community and reducing feelings of isolation, which are common among older adults (Kritz et al., 2021). Additionally, research by McMahon et al. (2017) suggests that interventions that leverage social support networks can improve self-efficacy and motivation for PA in older adults, leading to sustained engagement in physical activity (McMahon et al., 2017).

Cultural and social factors, ranked seventh, further underscore the role of societal norms and cultural perceptions in shaping older adults' attitudes toward PA. Studies by Lee et al. (2020) and Rahman et al. (2019) have highlighted that cultural beliefs regarding aging and physical activity can either encourage or discourage older adults from engaging in PA (H. Lee et al., 2020; Rahman et al., 2019). For instance, in some cultures, older adults may perceive PA as an activity reserved for younger individuals, leading to lower participation rates. Conversely, in cultures that promote active aging, older adults are more likely to view PA as a normative and essential aspect of their daily lives. The integration of cultural and social factors into PA promotion strategies is therefore critical in addressing the specific needs and perceptions of diverse elderly populations.

Elderly women's participation in sports, ranked eighth, reflects the gender disparities that exist in PA participation among older adults. Studies have consistently shown that older women are less likely to engage in regular PA compared to their male counterparts, often due to gender-specific barriers such as caregiving responsibilities, safety concerns, and cultural expectations (Gothe & Kendall, 2016). Kritz et al. (2021) found that older women are more likely to participate in PA when supported by peer leaders or community programs that specifically target their unique needs and preferences. This highlights the importance of designing gender-sensitive PA programs that cater to the specific barriers faced by older women (Kritz et al., 2021).

Finally, individual factors, ranked ninth, encompass personal characteristics such as age, physical ability, and motivation, which have been shown to influence PA participation among older adults. Studies by Ofli et al. (2016) and Cardini and Freund (2020) have demonstrated that older adults' subjective perceptions of their physical abilities and energy levels can significantly impact their willingness to engage in PA (Cardini & Freund, 2020; Ofli et al., 2016). Programs that address individual concerns, such as fear of injury or lack of confidence, are therefore essential in promoting PA participation among older adults.

This study, while offering significant insights, is not without its limitations. First, the research was conducted in a specific geographic region, which may limit the generalizability of the findings to other areas with different cultural, social, or economic contexts. The sample was restricted to elderly individuals in Golestan Province, and the findings might not fully represent the experiences of older adults in other regions. Additionally, the study relied on self-reported data in both the qualitative and quantitative phases, which may introduce bias due to participants' subjective perceptions or recall inaccuracies. Another limitation is the cross-sectional nature of the study, which limits the ability to draw causal conclusions about the relationships between the factors influencing elderly participation in physical activity. Lastly, while a mixed-methods approach was used to provide a comprehensive understanding, the complexity of analyzing such data could have limited the depth of interpretation.

Future research should aim to address the limitations identified in this study. Expanding the sample to include a more diverse population from different regions or countries would provide a broader understanding of the factors influencing elderly participation in physical activity. Comparative studies across different cultural or socio-economic settings could offer valuable insights into how these factors vary in different environments. Additionally, future studies could benefit from a longitudinal design, allowing researchers to explore how factors influencing participation change over time, providing a clearer understanding of causal relationships. Employing more objective measures, such as wearable activity trackers, could also enhance the accuracy of data regarding physical activity levels among older adults. Finally, further research could explore the effectiveness of specific interventions designed to address the barriers identified, particularly interventions that integrate technology or peer support.

From a practical standpoint, several recommendations emerge from this study. First, policymakers and community leaders should prioritize creating environments that are conducive to elderly participation in physical activity. This includes investing in accessible, safe, and well-equipped public spaces and facilities that cater specifically to the needs of older adults. Social support systems should be strengthened, with emphasis on encouraging family involvement, peer support groups, and community-based programs that promote regular physical activity among the elderly. Healthcare professionals and public health campaigns should focus on educating older adults about the benefits of physical activity, while addressing economic barriers through subsidized programs or free community-based exercise opportunities. Moreover, specialized programs for elderly women should be developed, considering their specific needs and challenges. Overall, a multi-faceted approach that considers physical, psychological, and social factors is essential to effectively promote active aging and improve the well-being of older adults.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research

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before the start of the interview and participated in the research with informed consent.

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