

Perceived Barriers to Perform Physical Activity in Community-Dwelling Elderly- A Cross-Sectional Survey

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Abstract

Purpose: Regular physical activity is essential for healthy ageing and offers a range of health benefits, including reduced risk of all-cause. According to physical activity guidelines, excepting cases where contraindicated, physical activity should be part of every elderly plan of care. Elderly individuals due to deteriorating physical abilities and inappropriate infrastructural facilities are more likely to perceive barriers to proactively participate in community driven activities which needs to be analyzed and understood **Objective:** To identify the perceived barriers to perform physical activity in community dwelling elderly.

Methods: Elderly population above 65 years of age were considered for this observational survey, a total of 150 physically inactive community dwelling elderly subject met the inclusion criteria and were considered for the study. "Barriers to Physical activity" survey questionnaire was administered and descriptive analysis was performed.

Result: The descriptive analysis showed that the most commonly perceived barriers to participate in physical activity as frequently reported by the respondents were poor health (75.3%), fear of falling or injury (67.3%), and lack of interest (62.7%). These findings highlight health-related and motivational concerns as major deterrents to engaging in physical activity. Additionally, a considerable proportion of participants cited lack of time (41.3%), lack of transport (42%), and lack of company (44.7%) as obstacles. In contrast, fewer participants reported lack of opportunities (36.7%) and time constraints (41.3%) as barriers.

Conclusion: This study provided relevant data on the perception of barriers to physical activity in elderly population dwelling in urban and sub-urban communities in Dharwad. The perceived barriers should be considered at the time of designing the health promotion and intervention programs as well as policy making and infrastructural facilities for elderly population to promote participation in physical activity.

Keyword: barrier, elderly, physical activity

INTRODUCTION

Population aging is a global phenomenon that presents both opportunities and challenges for societies. As life expectancy increases and fertility rates decline, the proportion of older adults in the population continues to grow. (1) According to the World Health Organization (WHO), the number of people aged 60 years and older will rise from 1 billion in 2020 to 2.1 billion by 2050. (2) This demographic shift places a spotlight on the health and well-being of the elderly, particularly those living independently in community settings. Among the many factors influencing healthy aging, physical activity plays a central role. However, despite its well-established benefits, many elderly individuals remain insufficiently active. Identifying and understanding the barriers to physical activity among community-dwelling elderly is therefore critical to promoting healthier, more active aging. (3) (4)

Physical activity is universally recognized as a cornerstone of healthy aging. Regular physical activity among the elderly helps maintain functional independence, reduces the risk of chronic diseases such as cardiovascular disease, diabetes, and osteoporosis, and enhances mental health by reducing symptoms of depression and anxiety. It also improves mobility, balance, and coordination, thereby reducing the

risk of falls a leading cause of injury and mortality in older adults. (5) The WHO and national guidelines recommend that older adults engage in at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, along with muscle-strengthening activities on two or more days per week. (6) Despite these recommendations, global surveillance data suggest that a large proportion of elderly individuals do not meet the minimum physical activity guidelines. (7)

Community-dwelling elderly are older adults who live independently in their homes or in community housing settings, as opposed to institutionalized settings such as nursing homes. This group often retains higher levels of independence and mobility, which theoretically positions them to benefit more from physical activity interventions. However, research shows that even among community-dwelling elderly, physical inactivity is prevalent. (8) (9) Their experiences, motivations, and barriers are shaped by the interaction of personal, social, and environmental factors. Unlike institutionalized elderly, community dwellers may have access to different resources and opportunities but may also face unique challenges that hinder regular physical activity. (10)

Barriers to physical activity can be defined as factors that prevent or reduce the likelihood of individuals engaging in exercise or movement-based behaviors. These barriers can be internal (intrinsic), such as health conditions, fear of injury, or lack of motivation, or external (extrinsic), such as lack of access to safe environments, social support, or transportation. (11) For elderly individuals, these barriers are often multidimensional and interrelated, creating complex challenges that require multifaceted solutions. In addition, socio-economic factors such as low income or educational level may further exacerbate these barriers by limiting awareness of physical activity opportunities or the means to access them. (12)

The consequences of physical inactivity in the elderly population are profound. It accelerates the natural decline in muscle mass and bone density, increases the risk of chronic diseases, and contributes to poor mental health outcomes such as depression and cognitive decline. (13) Socially, inactivity can lead to increased isolation and a diminished sense of purpose or engagement with the community. Economically, the burden on healthcare systems is significant, as inactivity is associated with increased hospitalizations, long-term care needs, and higher medical costs. (14)

There is a need for this studies in our region about the barriers to physical activity in elderly individuals. By identifying and addressing the full spectrum of barriers, researchers and policymakers can better support active aging and improve quality of life among older adults.

MATERIALS AND METHODS

Source of Data: KLE Hubli co-operative hospital, Rehab centers in Dharwad, Karnataka

Study Design: Cross sectional study

Study Period: 1 month from the institution Ethics Committee Approval

Sample Size: 150 elderly patients were included in this study.

Sampling technique: Convenience sample

Inclusion Criteria: Elderly aged above 60 years, living in the community, able to provide informed consent and willing to participate and complete the survey, physically capable of communication.

Exclusion Criteria: Patient not willing to participate are excluded, participation in structured physical activity or exercise research in the last 6 months, individuals with diagnosed cognitive impairments are excluded.

Study protocol:

Objective: To identify the perceived barriers to perform physical activities in community dwelling elderly.

Method of the study: The the ethics approval from the Institution Ethics Committee (JGMMMCIEC - F-068/2025) was obtained on 10th January 2025. Written informed consent was taken from the study participants. The data collected was kept confidential and was delinked from the personal identifiers.

Data collection procedure: In this cross sectional study design the demographic data of participants Age, Gender, Location, Occupation, Economic status, Education, any

Co-morbidity was obtained for each participant. Participant were interviewed face to face, by the primary investigator. The Barriers to Physical Activity Questionnaire for Elderly (BPAQ-E) questionnaire, which encompasses seven question was administered. Participant has to either answer YES or NO for the respective questions. Each session took approximately 15 - 20 minutes per participant. A p-value < 0.05 will be considered statistically significant. The data obtained is analyzed by using the SPSS version 26.0

RESULTS

The descriptive analysis showed that the most frequently reported barriers to physical activity among participants were poor health (75.3%), fear of falling or injury (67.3%), and lack of interest (62.7%). These findings highlight health-related and motivational concerns as major deterrents to engaging in physical activity. Additionally, a considerable proportion of participants cited lack of time (41.3%), lack of transport (42%), and lack of company (44.7%) as obstacles. In contrast, fewer participants reported lack of opportunities (36.7%) and time constraints (41.3%) as barriers.

Other barriers such as lack of time, company, transport, and interest showed no statistically significant gender differences ($p > 0.05$)

Table. 1 The Responses to Barriers to Physical Activity

| Barrier | No (N, %) | Yes (N, %) |
|----------------------------|------------|-------------|
| P1 - Lack of time | 88 (58.7%) | 62 (41.3%) |
| P2 - Afraid of fall/injury | 49 (32.7%) | 101 (67.3%) |
| P3 - Lack of company | 83 (55.3%) | 67 (44.7%) |
| P4 - Poor health | 37 (24.7%) | 113 (75.3%) |
| P5 - Lack of opportunities | 95 (63.3%) | 55 (36.7%) |
| P6 - Lack of transport | 87 (58%) | 63 (42%) |
| P7 - Lack of interest | 56 (37.3%) | 94 (62.7%) |

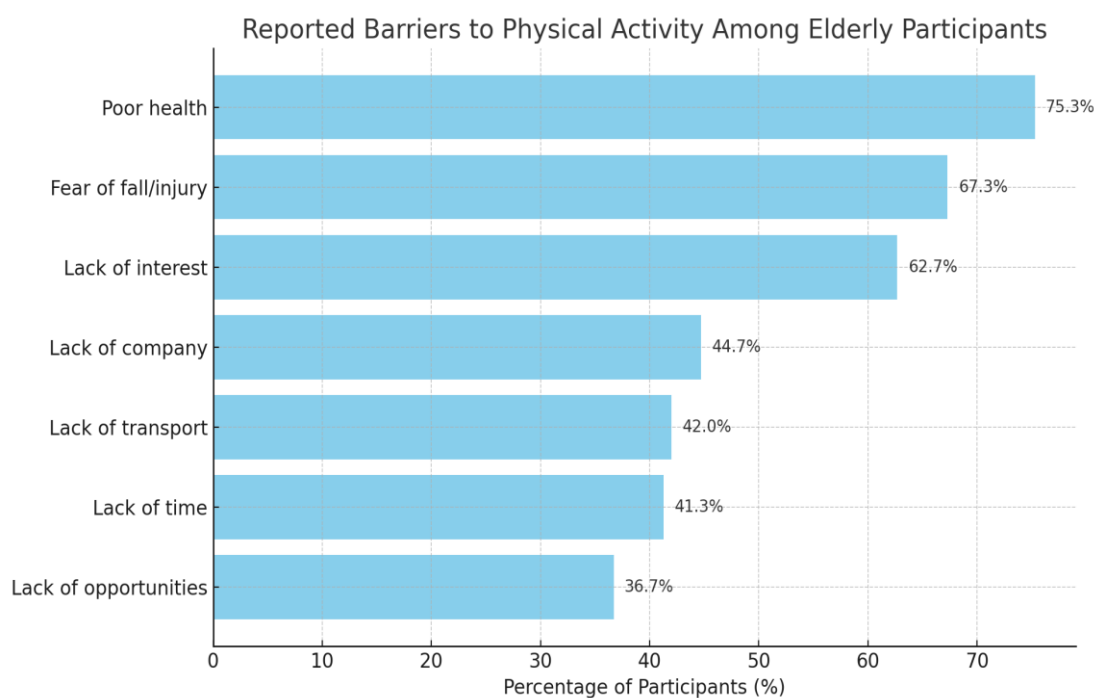


Fig. 1 Graph representing reported barriers to physical activity among elderly

DISCUSSION

Physical activity is vital for maintaining health, independence, and quality of life in older age. Yet, a significant proportion of community-dwelling elderly remain physically inactive due to a wide range of barriers. Given the growing aging population, addressing the obstacles to physical activity among community-dwelling elderly is not just a public health priority it is a societal imperative.

The present study investigated barriers to physical activity among community-dwelling elderly individuals, highlighting both general and gender-specific patterns. The findings indicate that health-related, psychological, and logistical factors collectively contribute to physical inactivity in this population.

Among the most commonly reported barriers were poor health (75.3%), fear of fall/injury (67.3%), and lack of interest (62.7%). These findings align with existing literature, which often identifies physical limitations and fear of injury as major deterrents to physical activity among older adults (Cunningham et al., 2020; Paterson & Warburton, 2010). (15) (16) The prominence of “poor health” underscores the

dual role of aging and chronic disease as both motivators and inhibitors of physical activity. While physical activity can mitigate many age-related conditions, existing illness or frailty may discourage participation. Similarly, fear of falling, particularly prevalent in the elderly, can create a cycle of avoidance and further DE-conditioning. The high percentage of participants citing this fear suggests that fall-prevention strategies and confidence-building interventions may be vital to promoting physical activity. The third major barrier, lack of interest, likely reflects motivational and psycho-social challenges. Older adults may not perceive physical activity as enjoyable, necessary, or suited to their abilities, especially if not exposed to age-appropriate or engaging programs. This calls for community initiatives that emphasize fun, social, and functional aspects of physical movement. Other reported barriers included lack of company (44.7%), lack of transport (42%), and lack of time (41.3%), which though less frequent, still represent important structural or contextual obstacles. These results are consistent with earlier studies that highlight how the absence of social support and transportation options can reduce access to community fitness or walking groups (Smith et al., 2015). (17) Fear of fall/injury was significantly higher among females (83.8%) compared to males (35.3%) ($p = 0.000$). This is consistent with prior research showing that women report more fear of falling, potentially due to higher prevalence of osteoporosis or prior fall experiences (Zijlstra et al., 2007). (18) (19) This finding suggests that tailored interventions for women must incorporate safety education and fall prevention strategies. Poor health was unexpectedly reported more by males (88.2%) than females (68.7%) ($p = 0.009$). This may reflect differences in perceived health or types of chronic conditions prevalent in male participants. Alternatively, it could relate to a lower engagement in healthcare or self-care behaviors among men, making physical activity appear more burdensome or unsafe. Lack of opportunities was significantly more common among females (43.4%) than males (23.5%) ($p = 0.017$). This suggests gender-based disparities in access to safe, culturally appropriate, or convenient physical activity options. Social norms, caregiver roles, or limited mobility due to household responsibilities might also limit women's ability to engage. Other barriers like time, transport, company, and interest did not differ significantly between genders ($p > 0.05$), although female respondents consistently reported higher prevalence in all. This trend may reflect underlying gender differences in lifestyle patterns, perceived risk, or social isolation. Incorporating motivational strategies, such as group-based activities and culturally meaningful practices, could help mitigate disinterest across genders.

Limitations and Future Research

This study, while informative, is limited by its cross-sectional design and reliance on self-reported data, which may be influenced by recall or social desirability bias. Additionally, the sample size, although adequate, may not represent the wider elderly population in diverse regions or cultural settings. Future studies could explore qualitative perspectives on barriers and facilitators, and assess the effectiveness of tailored interventions in overcoming these challenges.

Conclusion

This Study provided relevant data on the perception of barriers to physical activity in elderly population dwelling in urban and sub-urban communities in Dharwad. The perceived barriers should be considered at the time of designing the health promotion and intervention programs as well as policy making and infrastructural facilities for elderly population to promote participation in physical activity.

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