Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/20238
DOI URL: http://dx.doi.org/10.21474/IJAR01/20238

RESEARCH ARTICLE

INSIGHTS INTO THE MENTAL, SOCIO-ECONOMIC, AND PHYSICAL WELL-BEING OF GERIATRIC COMMUNITIES IN NURSING HOMES: A PROSPECTIVE SURVEY

Pramod C., Neethu M.V, Sagar Pamu, Anjumol V.M and Satish Mittapally

Manuscript Info

Manuscript History
Received: 14 November 2024
Final Accepted: 16 December 2024
Published: January 2025

Key words:-
Geriatric Care, Nursing Home Residents, Quality Of Life, Physical Health, Mental Well-Being, Socio-Economic Challenges, Integrated Eldercare Strategies

Abstract

Aging is a complex biological process coupled with many physical, mental, and socio-economic challenges. With the rapid growth of the geriatric population worldwide, the necessity of organized eldercare has been felt, especially in developing nations like India, where resources are scarce. The present study uses a mixed-method approach to assess the quality of life of the nursing home residents in Kerala, India, based on their physical, mental, and socio-economic status. The assessment involved the validated tools MMSE, GHQ-12, and GDS. It was conducted among residents aged 60 years and above. Results were that significant challenges included a high prevalence of chronic conditions, sensory impairments, depression, and cognitive decline. Other challenges that worsened their situation were functional limitations, social isolation, and financial instability. Despite a relatively healthy lifestyle, gaps in healthcare access, social support, and assistive device availability persist. This study underlines the need for integrated geriatric care models, targeted policy interventions, and holistic strategies to improve the quality of life of elderly individuals in institutional settings. The findings contribute to the discourse on aging and provide insights to guide policy reforms and enhance eldercare services in India and beyond.

Introduction:-

Aging is one of the biological processes and many other physical, mental, and socio-economic challenges. Globally, the population of older adults is growing at a rocket pace. 2050 those above 60 will make up 21% of the world's population [1]. It is more important in developing countries, as health and social support systems are poorly equipped for dealing with the aging population. The developed countries have had the time to adjust to these trends through structured policies and systems. However, India faces the dual challenge of rapid aging and limited resources to address its consequences [2].

In India, older adults form an increasingly significant segment of the population, with senior citizens expected to constitute nearly 15% by 2036. Female senior citizens are projected to outnumber males in this demographic shift [3]. With its progressive social indicators, such as high literacy rates and better healthcare facilities, Kerala has the country's highest proportion of older adults. Traditional support systems, which comprised the joint family system earlier, were strong and economical, emotional, and social support to elderly persons being eroded rapidly due to urbanization, nuclear families, and migration [4].

Corresponding Author:- Pramod C.

Nursing homes have emerged as an essential supplement to tackle the requirements of the elderly populations who cannot be taken back to their homes. These institutions provide 24-hour care and support according to the residents' needs [5]. However, the socio-economic and physical and mental health-related conditions of residents in nursing homes remain unscathed, especially in the case of India [6]. Compounding their plight is that many older adults experience the problems of financial instability, failing health, and social isolation- issues that dramatically affect their quality of life [7].

Kerala's progressive social indicators make it an ideal location to study issues and guide policies across socio-economic contexts. This study examines the quality of life of nursing home residents in Kerala, considering their socio-economic, physical, and mental well-being. The research aims to identify gaps in the existing care framework and advocate for holistic solutions. It contributes to the discourse on aging, informs policy measures, and sensitizes policymakers, healthcare providers, and community organizations toward cooperative efforts for quality improvement in geriatric populations in institutional settings.

Methods:-

This study used a prospective, qualitative design with a mixed-methods approach [8] among geriatric patients in nursing homes. It combined in-depth interviews, chart reviews, and patient history analyses. A validated data collection form ensured accuracy and comprehensiveness.

Participants aged 60 or older who had been residing in a Kottayam nursing home for at least three months and could communicate coherently were included. Those with severe impairments or from outside Kerala were excluded. The study lasted three months, from January to March.

Pharmacy students conducted 20–30-minute face-to-face interviews in Malayalam to collect data on age, gender, marital status, education, financial condition, medical history, and current medications from patient charts [9].

The Mini-Mental State Examination (MMSE) assesses cognitive function [8], the General Health Questionnaire (GHQ)-12 evaluates psychological health [10], and the Geriatric Depression Scale GDS measures depressive symptoms [9]. Physical health data, including height, weight, BMI, and blood pressure, were recorded, while social health was evaluated based on participant interactions and support networks.

The methodology provided a comprehensive assessment of geriatric residents' physical, mental, and socio-economic health, aiding in formulating targeted care strategies and policies.

Results:-

Physical Health Assessment

Table 1:- Bio physiological Measures of Geriatric Patients.

Height Measures		
Height	**Frequency**	**Percentage**
131-140 cm	00	0.00
141-150 cm	03	10.00
151-160 cm	16	53.33
161-170 cm	08	26.67
171 cm and above	03	10.00
Weight Measures		
Weight	**Frequency**	**Percentage**
Below 40	00	00.00
40-49 kg	05	16.67
50-59 kg	08	26.66
60-69 kg	15	50.00
70 and above	02	6.66
BMI Measures		
BMI	**Frequency**	**Percentage**
< 18 kg/m^2	00	00.00
18 – 24 kg/m^2	19	63.33

>25 kg/m^2	11	36.67
Blood Pressure Measures		
Blood Pressure	**Frequency**	**Percentage**
Hypertension	11	36.67
Hypotension	13	43.33
Normal	06	20.00
Vision Measures		
Vision	**Frequency**	**Percentage**
Normal	04	13.33
Fair	14	46.67
Poor	12	40.00
Hearing Measures		
Hearing	**Frequency**	**Percentage**
Normal	11	36.67
Fair	14	46.67
Poor	05	16.67

Most participants (53.33%) had a height range of 151–160 cm, with smaller proportions above or below this range. Regarding weight, half of the participants (50%) fell within the 60–69 kg category, while 26.66% were between 50–59 kg. Most individuals had a typical BMI of 18–24 kg/m² at 63.33%, whereas 36.67% were classified as overweight with more than 25 kg/m². Blood pressure showed that 36.67% had hypertension, while 43.33% were hypotensive. The prevalence of cardiovascular risk factors is significant in these groups. Vision was poor, with 46.67% being fair, 40% having poor vision, and 13.33% having normal vision. Hearing assessments showed that 46.67% had fair hearing, 36.67% had normal hearing, and 16.67% had poor hearing, which reveals a high prevalence of sensory impairments.

Functional Parameters and Activities of Daily Living (ADL)

Table 2:- Assessment of Activities of Daily Living and Functional Parameters.

Activities of Daily Living		
ADL	**Frequency**	**Percentage**
Independent	22	73.33
Inter-dependent	08	26.67
Dependent	00	00.00
Functional parameters	**Frequency**	**Percentage**
loss of appetite	12	40.00
difficulty in chewing	09	30.00
increased thirst	14	46.66
problems with urination	08	26.66
breathlessness on exertion	17	56.66
constipation	12	40.00
sleeping difficulty	15	50.00
chest pain	10	33.33
loss of feeling/numbness in extremities	22	73.33

Most of the participants (73.33%) were independent in their activities of daily living, while 26.67% needed some form of assistance. Functional impairments were common, and most participants reported loss of feeling or numbness in extremities (73.33%) and breathlessness on exertion (56.66%). Other frequently encountered problems included difficulty in sleeping (50%), increased thirst (46.66%), constipation (40%), and chest pain (33.33%).

Mental Health Assessment

Table 3:- Mental Health Assessment of GHQ 12, GDS, MMSE.

GHQ-12 Assessment		
GHQ-12	**Frequency**	**Percentage**
Better mental status (12 or below)	24	80

Poor mental status (13 and above)	06	20
GDS Assessment		
GDS	**Frequency**	**Percentage**
Normal	12	40.00
Mild depression	11	36.67
Moderate depression	06	20.00
Severe depression	01	03.33
MMSE Assessment		
MMSE	**Frequency**	**Percentage**
Normal	7	23.33
Cognitive impairment (score 23 and below)	23	76.67

The results of GHQ-12 showed that 80% of the participants were better as their scores ≤12, while 20% had poor mental health. Depression assessment with GDS indicated that 40% of the participants had no depression, 36.67% had mild depression, 20% had moderate depression, and 3.33% had severe depression. MMSE results indicated high cognitive impairment, as 76.67% of the participants scored ≤23, whereas only 23.33% had normal cognitive function.

Social Health Assessment

Table 4:- Social Health Assessment.

Social health	**Frequency**	**Percentage**
Good social health (13 and above)	18	60
Poor social health (12 and below)	12	40

The social health assessment indicated that 60% of the respondents have good social health, involving active interaction and robust support networks. On the other hand, 40% of respondents reported poor social health with no meaningful social connections or support.

Personal Hygiene and Prostheses

Table 5:- Personal Hygiene Scale and Prostheses.

Personal Hygiene		
Personal Hygiene	**Frequency**	**Percentage**
Good	14	46.66
Fair	14	46.66
Poor	02	6.67
Prosthesis Checklist		
Prosthesis	**Frequency**	**Percentage**
Dental prostheses	04	13.33
Spectacles	10	33.33
Hearing Aids	00	00
Pacemaker	00	00
Artificial Limb	00	00
Walker	03	10.00
Orthopedic implants	00	00
Any other (specify)	00	00

A study assessed participants' hygiene using a standardized scale—46.66% rated good hygiene, while 6.67% had poor hygiene. The most common prosthetic aids were dental prostheses (13.33%) and spectacles (33.33%), with 10% using walkers. No participant reported using hearing aids, artificial limbs, or pacemakers.

Habits and Lifestyle

Table 6:- Habits and Lifestyle.

Habits	Frequency	Percentage
Smoking	03	10.00
Alcoholism	00	00.00
Beetle Chewing	02	6.67
Pan masala	00	00.00
Snuffs	00	00.00
Ganja	00	00.00
No habits	25	83.33

Most respondents, 83.33%, reported no smoking, alcohol consumption, or chewing betel leaves, with 10% smoking and 6.67% chewing, but these behaviors had relatively low prevalence rates.

Morbidity and Common Health Issues

Participants frequently reported symptoms such as loss of feeling or numbness in extremities, breathlessness, constipation, sleeping difficulties, and chest pain. These issues were often associated with chronic conditions such as hypertension and diabetes. Participants' absence of communicable diseases reflected good hygiene and effective health practices in the nursing home environment.

Discussion:-

The research sheds light on the physical, mental, and socio-economic status of geriatric residents in nursing homes, showing that challenges range from chronic health issues to financial instability and mental health.

This study indicates that the occurrence of hypertension at 36.67% and hypotension at 43.33% may trigger cardiovascular diseases [11] among elderly residents. Factors resulting from aging-related vascular stiffness and reduced baroreceptor sensitivity associated with chronic conditions like diabetes form the basis of dysregulated blood pressure [12]. The functional impairments relate to numbness in limbs (73.33%) and breathlessness (56.66%) and corresponded with the high rates for peripheral neuropathy [13] and also an undesirable cardiorespiratory level [14] reported in older adults. These factors typically develop around chronic inflammation and poor activity with inadequate medical intervention. Impairments in vision and hearing were also evident, with 40% having poor vision and 16.67% reporting poor hearing. Such sensory deficits are mainly related to age-related degenerative changes in the visual and auditory systems, including lens opacity, macular degeneration, and cochlear degeneration, worsening the quality of life [15].

The research on depression and cognitive impairment noted that mild to moderate depression impacts more than 50% of residents in geriatric facilities. This can be attributed to neurochemical imbalances, including low serotonin and dopamine levels, social isolation, and reduced cognitive stimulation in nursing homes [16]. The high prevalence of cognitive impairment (76.67%) emphasizes the role of aging-related neurodegenerative processes, including hippocampal atrophy and oxidative stress, which exacerbate cognitive decline [17].

Social isolation, reported by 40% of participants, highlighted the declining engagement of older persons due to eroded joint family systems in India [18]. Social isolation causes chronic stress responses, which increase cortisol levels and contribute to depression and poorer health outcomes [19]. Financial instability, observed in 76.67% of participants, is a common theme across studies on elderly care. The lack of access to beneficiary schemes (73.33%) underscores gaps in policy implementation, emphasizing the need for structured financial literacy programs and improved accessibility to welfare measures [20].

The fact that walkers are used by only 10% of participants and only spectacles by 33.33% highlights reduced access to supportive instruments. Thus, the cost-oriented constraints, lack of awareness of access, and insufficient support mechanisms from organizations work against the usage, exacerbating mobility and eye deficiencies [21, 22].

The study found that 83.33% of the people in a nursing home had no current habits such as smoking, alcohol use, or betel chewing, indicating a healthy lifestyle. Smoking and chewing betel increase the risks of cardiovascular diseases, respiratory disorders, and oral cancers, especially among geriatric populations [23, 24]. The absence of

these habits must have enhanced the management of chronic conditions and health outcomes. These findings highlight the importance of lifestyle modifications in mitigating age-related health risks and enhancing the quality of life for older adults.

The study revealed common symptoms like numbness, breathlessness, constipation, sleeping difficulties, and chest pain linked to chronic diseases like hypertension and diabetes. These symptoms are exacerbated by chronic inflammation and reduced physical activity [25-27]. The absence of communicable diseases demonstrates the effectiveness of hygiene practices and health monitoring in nursing homes.

The study highlights the need for similar interventions in developing countries like India [28], where geriatric populations in developed countries have better health outcomes due to robust healthcare systems and social welfare programs [29], reducing the prevalence of cognitive decline and promoting preventive healthcare and cognitive stimulation.

High incidences of depression, declining cognitive abilities, and bodily disorders are rooted in physiological and socio-economic [30]. The biological theory of aging leads to accumulative cellular damage, oxidative stress, and chronic inflammation; these factors impair the functional ability of organs and mental health [31]. Sociological factors, like poverty and social isolation, accentuate this condition by restricting medical healthcare facilities and psychological pressures due to an unstable financial system [16].

Conclusion:-

This study sheds light on the significant physical, mental, and socio-economic challenges elderly residents of nursing homes in Kerala are facing, including chronic conditions, sensory impairments, depression, and cognitive decline. The gaps in healthcare access, social support, and financial stability remain critical concerns even with relatively healthy lifestyles. To address the issues, integrated geriatric care models, financial aid programs, social engagement initiatives, and greater access to assistive devices. The findings serve as a basis for policy and strategy development to enhance the quality of life in aging populations. The solutions should be holistic, sustainable, and tailored to meet the needs of older persons.

References:-

1. Samouei, R. and M. Keyvanara, Identifying strategies for dealing with the aging population from the perspective of health system experts: A qualitative study. J Educ Health Promot, 2022. 11: p. 210.
2. Sidik, S.M., L. Rampal, and M. Afifi, Physical and mental health problems of the elderly in a rural community of sepang, selangor. Malays J Med Sci, 2004. 11(1): p. 52-9.
3. India ageing, elderly to make up 20% of population by 2050: UNFPA report. 2023 [cited 2023 27 September 2023]; Available from: https://india.unfpa.org/en/news/india-ageing-elderly-make-20-population-2050-unfpa-report.
4. Binu, T. and S. Karthikeyan, Ageing care: Challenges of residential care of the aged. International journal of health sciences, 2022. 6(S4): p. 3819-3833.
5. van Hoof, J., et al., A three perspective study of the sense of home of nursing home residents: the views of residents, care professionals and relatives. BMC Geriatr, 2016. 16(1): p. 169.
6. Dey S, N.D., Lakshmi JK, et al, Health of the Elderly in India: Challenges of Access and Affordability. In: National Research Council (US) Panel on Policy Research and Data Needs to Meet the Challenge of Aging in Asia. Findings From New and Emerging Data Initiatives, ed. M.M. Smith JP. 2012, Washington (DC): National Academies Press (US).
7. Panday, R. and P. Kumar, Quality of life among elderly living in old age home: a brief overview. 2017.
8. Drageset, J., et al., Suffering and mental health among older people living in nursing homes-a mixed-methods study. PeerJ, 2015. 3: p. e1120.
9. Aajami, Z., et al., Relationship between Depression and Cognitive Impairment among Elderly: A Cross-sectional Study. J Caring Sci, 2020. 9(3): p. 148-153.
10. Molina, J.G., et al., Wording effects and the factor structure of the 12-item General Health Questionnaire (GHQ-12). Psychological Assessment, 2014. 26(3): p. 1031-1037.
11. Oliveros, E., et al., Hypertension in older adults: Assessment, management, and challenges. Clin Cardiol, 2020. 43(2): p. 99-107.
12. Maier, J.A., et al., Aging and Vascular Disease: A Multidisciplinary Overview. J Clin Med, 2023. 12(17).

13. Schmader, K.E., et al., Treatment considerations for elderly and frail patients with neuropathic pain. Mayo Clin Proc, 2010. 85(3 Suppl): p. S26-32.
14. Gary, R., Evaluation of frailty in older adults with cardiovascular disease: incorporating physical performance measures. J Cardiovasc Nurs, 2012. 27(2): p. 120-31.
15. Fisher, D., et al., Impairments in hearing and vision impact on mortality in older people: the AGES-Reykjavik Study. Age Ageing, 2014. 43(1): p. 69-76.
16. Brandt, L., et al., The effects of social isolation stress and discrimination on mental health. Transl Psychiatry, 2022. 12(1): p. 398.
17. Bettio, L.E.B., L. Rajendran, and J. Gil-Mohapel, The effects of aging in the hippocampus and cognitive decline. Neurosci Biobehav Rev, 2017. 79: p. 66-86.
18. Mishra, B., J. Pradhan, and S. Dhaka, Identifying the impact of social isolation and loneliness on psychological well-being among the elderly in old-age homes of India: the mediating role of gender, marital status, and education. BMC Geriatrics, 2023. 23(1): p. 684.
19. Mumtaz, F., et al., Neurobiology and consequences of social isolation stress in animal model—A comprehensive review. Biomedicine & Pharmacotherapy, 2018. 105: p. 1205-1222.
20. Samuel, L.J., et al., Community-dwelling older adults who are low-income and disabled weathering financial challenges. Geriatr Nurs, 2021. 42(4): p. 901-907.
21. Malhotra, S., et al., Use of spectacles for distance vision: coverage, unmet needs and barriers in a rural area of North India. BMC Ophthalmol, 2019. 19(1): p. 252.
22. Rodríguez-Costa, I., et al., Benefits of a Low-Cost Walking Device in Children with Cerebral Palsy: A Qualitative Study. Int J Environ Res Public Health, 2021. 18(6).
23. Lin, W.-Y., et al., Betel nut chewing is associated with increased risk of cardiovascular disease and all-cause mortality in Taiwanese men1. The American Journal of Clinical Nutrition, 2008. 87(5): p. 1204-1211.
24. Gallucci, G., et al., Cardiovascular risk of smoking and benefits of smoking cessation. J Thorac Dis, 2020. 12(7): p. 3866-3876.
25. Furman, D., et al., Chronic inflammation in the etiology of disease across the life span. Nat Med, 2019. 25(12): p. 1822-1832.
26. Burini, R.C., et al., Inflammation, physical activity, and chronic disease: An evolutionary perspective. Sports Medicine and Health Science, 2020. 2(1): p. 1-6.
27. Petrie, J.R., T.J. Guzik, and R.M. Touyz, Diabetes, Hypertension, and Cardiovascular Disease: Clinical Insights and Vascular Mechanisms. Can J Cardiol, 2018. 34(5): p. 575-584.
28. Sahoo, H., et al., Health issues, health care utilization and health care expenditure among elderly in India: Thematic review of literature. Aging and Health Research, 2021. 1(2): p. 100012.
29. Woods, B., et al., Cognitive stimulation to improve cognitive functioning in people with dementia. Cochrane Database Syst Rev. 2023 Jan 31;2023(1):CD005562. doi: 10.1002/14651858.CD005562.pub3. eCollection 2023.
30. Remes, O., J.F. Mendes, and P. Templeton, Biological, Psychological, and Social Determinants of Depression: A Review of Recent Literature. Brain Sci, 2021. 11(12).
31. Liguori, I., et al., Oxidative stress, aging, and diseases. Clin Interv Aging, 2018. 13: p. 757-772.