

PERCEIVED STRESS AMONG OLDER ADULTS IN KERALA

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Abstract

This study examines perceived stress among older adults in Kerala, India, a region with one of the highest proportions of elderly citizens in the country. As ageing populations face unique challenges—including chronic illness, social isolation, and financial insecurity—understanding stress levels and their determinants is crucial for promoting healthy ageing. Using the Perceived Stress Scale (PSS), data were collected from 200 adults aged 60 and above in a semi-urban area of Kerala. Results indicated an average stress score of 20.56, with moderate variability and a slight positive skew, suggesting that while most participants reported moderate stress, a subset experienced significantly higher levels. Gender and marital status were key factors, with women and widowed/unmarried individuals exhibiting higher stress levels, consistent with prior research on social support and mental health in ageing populations. The findings underscore the need for targeted interventions, such as psychosocial support and community-based care, to mitigate stress and improve well-being among older adults. This study contributes to gerontological research by highlighting the social determinants of stress in Kerala's ageing population and advocating for integrated health policies to address these challenges.

Keywords: *perceived stress, older adults, ageing, Kerala, mental health, social determinants*

Introduction

In the context of today's rapidly evolving world, one of the most profound demographic transformations being observed is the increase in the ageing population. Extended life expectancy has been enabled by advancements in healthcare, improved nutrition, and better living conditions. Concurrently, fertility rates have shown a consistent decline. As a result, a steady rise in the proportion of older individuals within the population has been noted, with this trend being particularly prominent in countries such as India. In the Indian context, Kerala stands out as a state where this demographic transition is most pronounced. Owing to its historically progressive health indicators and ageing-friendly social environment, Kerala has become a focal point in discussions surrounding geriatric welfare. It is reported that more than 16% of Kerala's population is aged 60 years or above, and this figure is projected to rise further in the coming years. This demographic shift has been accompanied by both opportunities and challenges, among which the issue of stress experienced by older adults has emerged as a particularly critical concern.

The Problems and Prospects of Ageing

Ageing is not merely a biological process; rather, it is experienced as a deeply emotional and social journey. With age, individuals often undergo a series of significant life transitions, such as retirement, the loss of a spouse or close friends, the onset of chronic illnesses, reduced physical capacity, and, frequently, an increasing sense of social isolation. While certain older individuals are able to adapt to these changes with resilience, many find the transitions overwhelming.

The experience of stress in older adults is often misunderstood or neglected. However, the consequences of stress during this stage of life are considerable. Chronic stress has been shown to negatively impact both physical and psychological health in older adults. Elevated risks of cardiovascular disease compromised immune function, cognitive deterioration, and depression have all been linked to sustained stress. What renders the issue even more concerning is that many older adults may refrain from voicing their distress, influenced by generational beliefs regarding mental health or the fear of imposing a burden on others.

Stress in old age does not necessarily stem from abrupt, dramatic life events alone; rather, it often accumulates subtly through the loss of daily structure, social roles, and a sense of purpose. Retirement, traditionally viewed as a reward for years of labour, can result in feelings of disconnection and identity loss, particularly when professional identity has been central to one's life. Similarly, bereavement, whether involving a spouse, sibling, or close friend, creates a profound emotional void, often leading to loneliness. In addition, physical impairments, such as reduced mobility or chronic pain, frequently restrict social and physical activity, reinforcing isolation.

Cognitive changes, including memory loss or early symptoms of dementia, can also heighten anxiety. Financial instability, especially in the absence of pension schemes or personal savings, has been identified as another major source of distress, particularly when accompanied by rising healthcare costs. As emphasized by Lupien et al. (2009), chronic stress in older adults has been associated with a wide range of health complications, including depression, cognitive decline, immune dysfunction, and cardiovascular disorders. In this light, stress is no longer viewed as a solely psychological concern but as a comprehensive health issue that compromises independence, interpersonal relationships, and the capacity to manage daily responsibilities.

The importance of understanding the nature and sources of stress among older adults extends beyond academic inquiry; it constitutes a social and ethical obligation. By identifying the underlying causes be it loneliness, lack of social support, or limited access to healthcare more responsive and humane support systems can be designed. Such systems would enable older individuals to live with dignity, autonomy, and meaning. The implementation of targeted interventions, including mental health counseling, community-based engagement programs, geriatric daycare services, and affordable, accessible healthcare, has been found to significantly improve outcomes. It is imperative that policies be formulated on the basis of the lived experiences of the elderly, not merely demographic statistics. A culture that promotes resilience and psychological well-being among the aged population must be cultivated through the establishment of inclusive and empathetic communities, where senior citizens feel acknowledged, respected, and supported. A multi-sectoral approach is required. Healthcare professionals, social workers, families, and policy makers must work collaboratively. Initiatives such as intergenerational programs, physical activity promotion, and community recreation should be developed with the goal of ensuring that ageing is not perceived as a period of decline but as a celebrated and dignified phase of life.

A society that values each stage of human life must actively strive to ensure that older adults do not endure stress in silence. Through evidence-based and compassionate interventions, the well-being of older persons can be significantly enhanced. As stressed by Lupien et al. (2009), addressing stress among the elderly is not only essential for enhancing individual health outcomes, but also for alleviating the broader socioeconomic pressures on health and welfare systems. The increasing proportion of older adults in the population calls for immediate and sustained action. The creation of a supportive environment for healthy ageing is not merely beneficial it is indispensable.

Perceived Stress: Conceptual Overview and Relevance

Perceived stress is a psychological construct that captures an individual's subjective appraisal of stress in their life. Specifically, it refers to the degree to which individuals perceive their lives as unpredictable, uncontrollable, and overwhelming (Cohen, Kamarck, & Mermelstein, 1983). Unlike objective measures of stress that focus on external stressors, perceived stress emphasizes the cognitive and emotional responses individuals have toward challenges and demands. This perspective underscores the role of individual interpretation, wherein two persons exposed to similar external conditions may experience divergent levels of stress depending on their cognitive appraisals, coping mechanisms, and psychosocial resources.

Among older adults, perceived stress assumes particular relevance due to the complex interplay of age-related physiological decline, shifting social roles, and psychosocial vulnerabilities. Empirical evidence suggests that elevated levels of perceived stress in late life are strongly associated with adverse physical and mental health outcomes. For instance, studies observed a robust association between high perceived stress and increased frailty, which in turn heightens the risk for critical events such as falls, hospitalization, disability, and even premature mortality. Thus, perceived stress emerges not merely as a byproduct of aging but as a determinant that shapes the trajectory of health and functioning in later life.

Psychological and Social Correlates of Perceived Stress

Perceived stress is significantly modulated by a constellation of psychological and social factors, including but not limited to loneliness, depression, life satisfaction, and the quality of social relationships. These variables do not operate in isolation; rather, they are deeply interrelated, often compounding one another in cyclical patterns. For example, loneliness and social isolation conditions prevalent among the elderly due to widowhood, reduced mobility, or residential relocation can intensify perceived stress by depriving individuals of emotional support and a sense of belonging. In turn, elevated stress may exacerbate depressive symptoms, further deteriorating psychological resilience and social engagement.

Conversely, the presence of strong, supportive relationships has been shown to buffer against the deleterious effects of stress. Social integration and perceived support are associated with lower physiological stress responses and improved health outcomes, including reduced mortality risk (Holt-Lunstad, Smith, & Layton, 2010). The loss of a spouse or close family member, however, may significantly increase stress levels and compromise well-being. Stroebe, Schut, and Stroebe (2007) highlight that bereavement, particularly when accompanied by low social support, can have profound and enduring psychological consequences, contributing to the accumulation of stress and subsequent health deterioration.

Implications for Successful Aging and Quality of Life

The notion of successful aging, increasingly central in gerontological research, is closely intertwined with stress regulation. Self-rated successful aging (SRSA) a multidimensional construct encompassing physical health, psychological well-being, and social engagement is influenced by perceived stress levels. High stress not only diminishes individuals' subjective evaluations of their aging experience but also weakens the positive contributions of physical and mental health to overall well-being. In this context, perceived stress functions as a mediating variable, altering the impact of health status on life satisfaction and quality of life.

Moreover, protective psychosocial factors such as resilience and social support serve as critical moderators in this relationship. Resilience, defined as the capacity to adapt positively in the face of adversity, allows older adults to manage stress more effectively, preserving mental health and promoting a sense of purpose and control. Similarly, access to supportive relationships whether familial, communal, or institutional can significantly buffer the negative effects of stress, enabling more favorable aging outcomes (Umberson & Montez, 2010). These insights underscore the importance of developing interventions that enhance resilience and strengthen social networks among the elderly population.

Perceived Stress, Anxiety, and Life Satisfaction

A growing body of literature identifies a strong association between perceived stress and anxiety, particularly in the context of aging. Anxiety disorders, while often underdiagnosed in older adults, contribute to substantial declines in life satisfaction and are frequently comorbid with other conditions such as depression, sleep disturbances, hypertension, and cognitive impairment. These conditions may interact synergistically, leading to a cumulative burden on physical and psychological health. As Lupien et al. (2009) note, chronic stress and anxiety are associated with neurobiological changes, including dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis, which can accelerate cognitive decline and exacerbate age-related vulnerabilities.

Given these complex interrelations, addressing perceived stress and its psychological correlates is imperative for promoting mental well-being and enhancing life satisfaction in older populations. Targeted interventions—ranging from cognitive-behavioral therapy and mindfulness training to community-based support groups—can play a pivotal role in mitigating stress and fostering emotional resilience. Importantly, such strategies must be culturally sensitive and contextually appropriate, taking into account the unique social and environmental circumstances of the aging population.

Materials and Methods

Aim

The primary objective of the present study was to assess the level of perceived stress among older adults residing in a semi-urban locality of Kerala and to investigate the influence of selected social determinants on their stress levels. Kerala represents a compelling context for gerontological inquiry, given its demographic profile characterized by a high proportion of older adults and an elevated prevalence of chronic health conditions such as diabetes and hypertension. These conditions are known to be intricately linked with psychosocial stress, thereby necessitating a nuanced understanding of perceived stress within this population.

Participants and Sampling

A total of 200 older adults aged 60 years and above were recruited through a random sampling technique from a defined semi-urban geographical region in Kerala. Eligibility criteria required participants to be literate in their preferred language of communication, cognitively capable of understanding and responding to a structured questionnaire, and permanent residents of the locality for at least two years. Individuals with multiple disabilities or those living in institutional

environments, such as old age homes or assisted care facilities, were excluded to minimize confounding variables and to ensure consistency in the socio-environmental context of the participants.

Tools and Data Collection

Perceived stress was measured using the Perceived Stress Scale (PSS) developed by Cohen, Kamarck, and Mermelstein (1983). The PSS is a widely validated psychometric tool designed to assess the degree to which individuals appraise situations in their lives as stressful. It focuses on subjective experiences of unpredictability, uncontrollability, and perceived overload during the past month.

In addition to the PSS, a structured socio-demographic datasheet was administered to collect relevant information, including participants' age, gender, marital status, educational background, monthly income, and religious affiliation. Data collection was carried out through face-to-face interviews conducted by trained research assistants. All participants were briefed about the purpose and procedures of the study, and written informed consent was obtained prior to data collection. Confidentiality and anonymity were strictly upheld throughout the research process in accordance with ethical standards for human subject research.

Results and Discussion

The analysis of perceived stress scores revealed a mean value of 20.56, suggesting a moderate level of stress among the older adult participants. The median (20.00) and mode (19.00) were closely aligned with the mean, indicating a symmetrical distribution around the central tendency. The standard deviation of 4.60 denotes a moderate dispersion of scores, while the skewness coefficient (0.30) indicates a slight positive skew. The kurtosis value (0.11) reflects a distribution that is approximately mesokurtic, further affirming that the data approximates a normal distribution. The range of scores, extending from a minimum of 10 to a maximum of 32, demonstrates a noticeable variation in how stress is experienced among older adults in the sample. This variation may be attributed to differences in social support, health status, life events, and coping resources. The overall distribution supports the assumption of normality, thereby validating the application of parametric statistical procedures such as independent sample t-tests and ANOVA in subsequent analyses. These findings are consistent with extant literature that highlights moderate perceived stress as a common experience among older adults, particularly in settings marked by rapid social transformation and changing family dynamics. Studies have reported that factors such as declining health, loss of a spouse, loneliness, and reduced autonomy contribute significantly to heightened stress levels in later life. The moderate stress levels observed in this study may also reflect the transitional nature of semi-urban environments, where older adults often navigate tensions between traditional social support systems and modern lifestyle disruptions.

Furthermore, the relatively normal distribution of stress scores in this sample suggests that perceived stress is a pervasive but variably experienced phenomenon among the elderly, necessitating targeted psychosocial interventions. Public health programs designed to promote mental well-being in older adults should prioritize strategies that enhance resilience, strengthen community support, and improve health literacy.

Results and Discussion

Level of Perceived Stress

The findings indicate that a majority of the older adult participants (68.5%) reported moderate levels of perceived stress, as measured by the Perceived Stress Scale (PSS). A smaller yet substantial proportion (15.5%) experienced high stress, while only 16% reported low levels of stress. These results signal a notable degree of psychological vulnerability among the elderly in the study area.

Level of Perceived Stress	Score Range	Frequency	Percentage
Low	0–16	32	16.00%
Moderate	17–25	137	68.50%
High	26–40	31	15.50%

The preponderance of moderate-to-high stress levels suggests that many older adults in this semi-urban setting encounter psychological strain, possibly related to chronic illness, declining physical capacity, reduced income security, and social isolation.

Gender Differences in Perceived Stress

An independent samples t-test was conducted to examine gender-based differences in perceived stress. The results revealed a statistically significant difference between male and female participants, with women reporting higher levels of stress (Mean = 22.20, SD = 4.22) than men (Mean = 20.19, SD = 5.81), with a *t*-value of 2.80 ($p < 0.05$).

Gender	N	Mean Score	Std. Deviation	t Value
Male	100	20.19	5.81	
Female	100	22.2	4.22	2.80*

These results corroborate existing literature suggesting that older women are more susceptible to psychological stress than men (Holt-Lunstad, Smith, & Layton, 2010). Contributing factors may include cumulative caregiving burdens, financial dependency, greater longevity leading to widowhood, and restricted access to coping resources. Moreover, women in later

life often face compounded disadvantages due to lower lifetime earnings and limited pension coverage, intensifying their stress burden.

Marital Status and Perceived Stress

Perceived stress was also analyzed based on marital status, and significant differences were observed. Widowed or unmarried individuals reported higher stress levels (Mean = 21.33, SD = 4.22) than their married counterparts (Mean = 19.19, SD = 5.02), with a t -value of 3.22 ($p < 0.05$).

Marital Status	N	Mean Score	Std. Deviation	t Value
Married	108	19.19	5.02	
Widowed/Unmarried	92	21.33	4.22	3.22*

These findings affirm the protective role of marital relationships in later life. As previously noted by Stroebe, Schut, and Stroebe (2007), spousal companionship provides crucial emotional and instrumental support, thereby buffering psychological stress. In contrast, bereavement or lifelong singlehood may lead to reduced emotional security and heightened exposure to loneliness, both of which contribute to elevated stress.

Implications

Overall, the results underscore the need for targeted interventions to address stress-related vulnerabilities among older adults, particularly women and the unmarried or bereaved. Social support systems, community-based outreach, and age-friendly health services must be strengthened to mitigate stress and enhance psychological well-being. Furthermore, programs promoting social participation and resilience-building could be especially beneficial in reducing stress levels and improving quality of life among this population segment.

The findings also highlight the importance of integrating psychosocial assessments into routine geriatric healthcare, particularly in high-aging states such as Kerala, where demographic shifts necessitate more comprehensive approaches to healthy and successful aging.

Conclusion

This study provides important insights into the prevalence and social determinants of perceived stress among older adults in a semi-urban region of Kerala. The findings reveal that more than **40%** of the elderly population experience moderate to high levels of perceived stress, with particularly high stress observed among women and those who are widowed or unmarried. These results underscore the need for gender-sensitive and socially inclusive interventions in geriatric mental health. Kerala's demographic transition, characterized by a rapidly aging population, is accompanied by increasing burdens of chronic disease and psychosocial distress. Stress in older adults is intricately linked to factors such as declining health, bereavement, reduced social roles, and economic insecurity. The associations observed between stress and socio-demographic variables in this study reaffirm the need for integrated care models that combine physical health monitoring with mental health support. Effective policy responses should prioritize early screening for stress, community-based psychosocial programs, and efforts to enhance social connectivity, particularly among high-risk groups. Integrating geriatric mental health services into primary healthcare and strengthening family and community-based support systems could substantially mitigate the negative effects of stress and promote healthy, successful aging in Kerala's elderly population.

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