

Original Research Article

Assessment of stress and coping strategies among geriatric men and women in a selected rural area of Uttar Pradesh: a comparative study

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Received: 02 August 2026

Revised: 20 September 2026

Accepted: 22 September 2026

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ABSTRACT

Background: Stress and coping are significant determinants of psychological well-being among older adults. Geriatric men and women encounter various physical, psychological, and social challenges that may influence their stress and strategies. The present study was conducted to assess and compare the level of stress and coping strategies among geriatric men and women residing in a selected rural area of Uttar Pradesh.

Methods: A quantitative research approach with a descriptive comparative study design was adopted. A total of 200 participants, including 100 geriatric men and 100 geriatric women, were selected using a non-probability purposive sampling technique. Data were collected through the interview technique using a structured interview schedule, through the perceived stress scale (PSS-10), and the brief COPE Scale. Descriptive and inferential statistics were used for data analysis.

Results: The findings showed that the majority of geriatric men (88%) and women (81%) had moderate levels of perceived stress. Geriatric women demonstrated significantly higher stress scores than geriatric men ($p=0.039$). Significant differences were observed in problem-focused coping ($p=0.001$) and avoidant coping ($p=0.018$), whereas emotion-focused coping did not differ significantly between the two groups ($p=0.775$).

Conclusions: The findings highlight the need for gender-sensitive mental health interventions, early identification of stress, and promotion of effective coping strategies to improve the psychological well-being and quality of life of geriatric population in rural areas.

Keywords: Geriatric men, Geriatric women, Stress, Coping strategies

INTRODUCTION

Population ageing has become one of the most significant demographic transitions worldwide and is recognized as a major public health challenge. Improvements in healthcare, nutrition, sanitation, and socioeconomic conditions have substantially increased life expectancy, resulting in a rapid growth of the older adult population. According to the World Health Organization (WHO), by 2030, one in every six people globally will be aged 60 years or above, and the global population of older adults is expected to reach 2.1 billion by 2050. This

demographic shift has increased the demand for comprehensive healthcare services that address not only physical illnesses but also the psychological and social well-being of older adults.^{1,2} Ageing is associated with progressive biological, psychological, and social changes that may adversely affect an individual's overall health and quality of life. Older adults commonly experience multiple stressors, including chronic illnesses, declining functional ability, financial insecurity, retirement, bereavement, social isolation, and reduced family support. Prolonged exposure to these stressors may lead to increased psychological distress, anxiety, depression, cognitive decline, and poor quality of life. Consequently,

stress among the elderly has become an important public health concern requiring timely identification and appropriate intervention.^{3,4}

Coping strategies are the cognitive and behavioral efforts used by individuals to manage internal and external demands arising from stressful situations. Effective coping enables older adults to adapt to age-related challenges, maintain emotional stability, and improve their overall well-being. In contrast, ineffective or avoidant coping strategies may aggravate psychological distress and negatively influence physical and mental health. The selection of coping strategies is influenced by several factors, including gender, age, educational status, socioeconomic conditions, cultural beliefs, family support, and the availability of community resources.^{5,6}

Gender differences have been reported in both perceived stress and coping behavior among older adults. Older women often experience greater levels of stress because of widowhood, caregiving responsibilities, financial dependency, multiple chronic health conditions, and longer life expectancy. Men and women may also differ in their preferred coping strategies while responding to stressful situations. However, previous studies have reported inconsistent findings, suggesting that stress perception and coping behavior are influenced by socio-cultural and environmental factors. Therefore, gender-specific assessment is essential for developing appropriate mental health interventions for older adults.^{7,8}

India is undergoing a rapid demographic transition with a steadily increasing elderly population, a large proportion of whom reside in rural areas. Rural older adults frequently face additional challenges such as poverty, limited educational opportunities, inadequate healthcare facilities, poor accessibility to mental health services, social isolation, and changing family structures. These factors may significantly influence their levels of stress and the coping strategies they adopt. Despite the increasing recognition of healthy ageing as a public health priority, evidence regarding gender differences in stress and coping among the rural elderly population remains limited, particularly in Uttar Pradesh.^{2,9}

Understanding the differences in stress and coping strategies between geriatric men and women is essential for planning gender-sensitive mental health services and community-based interventions. Therefore, the present study was undertaken to assess and compare the stress and coping strategies among geriatric men and women residing in a selected rural area of Uttar Pradesh, India.

METHODS

Research approach and design

A quantitative research approach with a comparative descriptive cross-sectional study design was adopted to assess and compare the level of stress and coping

strategies among geriatric men and women residing in a selected rural area of Uttar Pradesh. The study design was considered appropriate as it enabled the comparison of stress levels and coping strategies between the two groups at a single point in time without manipulation of the study variables.

Study setting

The study was conducted in a selected rural area of Uttar Pradesh after obtaining permission from the concerned administrative authority. The selected rural community consisted of households with diverse socioeconomic and cultural backgrounds, where a sufficient number of geriatric men and women aged 60 years and above were available. The setting was selected because of the accessibility of participants, feasibility of conducting the study, administrative support, and convenience for data collection.

Study population

The target population comprised geriatric men and women aged 60 years and above residing in the selected rural area of Uttar Pradesh during the period of data collection.

Sample size and sampling technique

The sample size was estimated using Yamane's formula considering a population of 1500 elderly individuals with a 5% margin of error. The calculated sample size was 316, which increased to 352 after adjusting for a 10% non-response rate. However, due to feasibility, time constraints, and available resources, a total of 200 participants were included in the study, comprising 100 geriatric men and 100 geriatric women. A non-probability purposive sampling technique was used to select the study participants who fulfilled the eligibility criteria.

Inclusion criteria

Geriatric men and women aged 60 years and above. Geriatric men and women who were willing to participate in the study. Geriatric men and women who were permanent residents of the rural area of Uttar Pradesh.

Duration of the study

The study was conducted during the data collection period from 23rd October 2025 to 8th November 2025.

Data collection tool

Data were collected using a structured interview schedule developed in accordance with the objectives of the study after an extensive review of the literature and consultation with experts. The interview schedule consisted of three sections to assess the socio-demographic characteristics,

perceived stress, and coping strategies among geriatric men and women.

Section A: socio-demographic profile

This section consisted of socio-demographic characteristics of the participants, including age, gender, religion, marital status, monthly family income, presence of caregiver, and other relevant variables considered important for the study.

Section B: perceived stress scale

Perceived stress was assessed using the perceived stress scale (PSS-10) developed by Cohen et al. The scale consists of 10 items that measure the degree to which individuals perceive situations in their lives as stressful during the previous month. Responses are recorded on a 5-point Likert scale ranging from 0 (Never) to 4 (Very Often). The total score ranges from 0 to 40, with higher scores indicating greater perceived stress.

Section C: Brief COPE scale

Coping strategies were assessed using the Brief COPE Scale developed by Charles Carver in 1997. The scale consists of 28 items grouped into 14 coping domains, with each domain containing two items. Responses are scored on a 4-point Likert scale ranging from 1 (I haven't been doing this at all) to 4 (I have been doing this a lot). The Brief COPE measures different coping responses, including problem-focused coping, emotion-focused coping, and avoidant coping. Higher scores indicate greater use of the respective coping strategy.

Data collection procedure

Prior permission was obtained from the concerned authorities before conducting the study. The participants were informed about the purpose and objectives of the study, and written informed consent was obtained before participation.

Eligible geriatric men and women were selected using a non-probability purposive sampling technique. Data were collected individually through the interview technique using a structured interview schedule. Socio-demographic information was collected first, followed by the administration of the PSS-10 and the brief COPE scale to assess the stress levels and coping strategies of the participants. Each interview was conducted in a comfortable and confidential environment, and the responses were recorded systematically in the interview schedule.

The data collection was carried out from 23 October 2025 to 08 November 2025. Confidentiality and privacy of the participants were maintained throughout the study, and

the collected information was used solely for research purposes.

Ethical considerations

Ethical principles were maintained throughout the study. Ethical approval was obtained from the Institutional Ethics Committee, School of Nursing Sciences and Allied Health, Jamia Hamdard, New Delhi, before data collection. Permission was also obtained from the concerned community authorities. Written informed consent was obtained from all participants after explaining the purpose and objectives of the study. Participation was voluntary, and the participants were assured that they could withdraw from the study at any stage without any consequences. Confidentiality and anonymity of the participants were maintained, and the information collected was used strictly for academic and research purposes.

Statistical analysis

The collected data were organized, coded, tabulated, and analyzed using descriptive and inferential statistics. Descriptive statistics, including frequency, percentage, mean, median, range, and standard deviation, were used to summarize the socio-demographic characteristics, perceived stress, and coping strategies among geriatric men and women. Inferential statistics, including the Chi-square test and independent t-test, were used to compare the socio-demographic characteristics, perceived stress, and coping strategies between geriatric men and women. A p value of <0.05 was considered statistically significant. The results were presented in tables and descriptive narratives for easy interpretation.

RESULTS

Demographic characteristics

A total of 200 geriatric participants, including 100 geriatric men and 100 geriatric women, were enrolled in the study. The socio-demographic characteristics of the participants are presented in Table 1 and Table 2.

Level of perceived stress

The level of perceived stress among geriatric men and women is presented in Table 2 and Table 3. The majority of both geriatric men and women had a moderate level of perceived stress.

Comparison of perceived stress

The comparison of mean perceived stress scores between geriatric men and women is presented in Table 4. Geriatric women had a significantly higher mean perceived stress score than geriatric men ($p=0.039$).

Figure 1: Frequency and percentage distribution of study subjects according to their demographic profile (age, religion, marital status).

Sample characteristics	Geriatric men (n ₁ =100) frequency (f)	%	Geriatric women (n ₂ =100) frequency (f)	%	Test used	P value
Age (in years)						
60–65	38	38	54	54	Chi-Square=6.255, df=3	0.1
66–70	27	27	17	17		
71–75	17	17	17	17		
76 or above	18	18	12	12		
Religion						
Hinduism	0	0	0	0		
Islam	100	100	100	100		
Christianity	0	0	0	0		
Sikh	0	0	0	0		
Marital status						
Married	83	83	62	62	Chi-Square=13.041, df=3	0.005*
Unmarried	1	1	3	3		
Divorced	1	1	0	0		
Separated	15	15	35	35		

p≤0.05, *Significant

Figure 2: Frequency and percentage distribution of study subjects according to their demographic data. (Family monthly income (in Rs), activity of daily living).

Sample characteristics	Geriatric men (n ₁ =100) frequency (f)	Men (%)	Geriatric women (n ₂ =100) frequency (f)	Women (%)	Test sed	P value
Family monthly income					Chi-square=4.775; df=3	0.189
Rs. 2,000 or less	0	0	1	1		
Rs. 2,001–5,000	3	3	5	5		
Rs. 5,001–10,000	38	38	49	49		
Rs. 10,001 or above	59	59	45	45		
Ability to perform activities of daily living independently					Chi-square=0.000; df=1	Not provided
Yes	77	77	77	77		
No	23	23	23	23		

p≥0.05, non-significant

Figure 3: Possible range of score, obtained range of score, Mean, Median, Standard deviation (SD) of stress score among geriatric men and women.

Group	Level of stress				
	Possible range of score	Obtained range of score	Mean	Median	Standard deviation
Geriatric Men n₁=100	0-40	13-28	22.42	23	3.793
Geriatric Women n₂=100	0-40	12-32	23.48	24	3.413

Figure 4: Frequency and percentage distribution of level of stress among geriatric men and women (using PSS-10 scale).

Level of Stress (with categories)	Geriatric Men n ₁ =100		Geriatric Women n ₂ =100	
	F frequency(f)	%	Frequency(f)	%
Severe stress (27-40)	10	10	18	18
Moderate stress (14-26)	88	88	81	81
Mild stress (0-13)	2	2	1	1

Figure 5: Mean, standard deviation, mean difference, un-paired t-test and P value between level of stress among geriatric men and women.

Group	Mean	S.D.	Mean difference	Unpaired t-Test	P value
Geriatric men (n ₁ =100)	22.42	3.793	1.06	2.077	0.039*
Geriatric women (n ₂ =100)	23.48	3.413			

*Significant, p≤0.05.

Figure 6: Frequency and percentage distribution of assessment coping strategies among geriatric men and women.

Category (Coping strategies)	Category	Geriatric Men n ₁ =100		Geriatric Women n ₂ =100	
		Frequency (f)	%	Frequency (f)	%
Problem focused coping	Adaptive coping (16-32)	24	24	4	4
	Maladaptive coping (≤15)	76	76	96	96
Emotion focused coping	Adaptive coping (24-48)	92	92	93	93
	Maladaptive coping (≤23)	8	8	7	7
Avoidant coping	Adaptive coping (16-32)	0	0	1	1
	Maladaptive coping (≤15)	100	100	99	99

Figure 7: Mean, standard deviation, mean difference, un-paired t-test and p value for comparison of level of coping strategies among geriatric men and women.

Coping strategy	Group	Mean	SD	Mean diff.	Unpaired t-test	P value
Problem focused coping	Geriatric men (n ₁ =100)	20.420	5.296	3.110	4.521	0.001*
	Geriatric women (n ₂ =100)	17.310	4.396			
Emotion focused coping	Geriatric men (n ₁ = 100)	29.130	3.639	0.150	0.289	0.775
	Geriatric women (n ₂ =100)	28.980	3.771			
Avoidant coping	Geriatric men (n ₁ =100)	16.900	3.129	1.070	2.387	0.018*
	Geriatric women (n ₂ =100)	15.830	3.210			

*Significant, p≤0.05.

Coping strategies

The distribution of coping strategies among geriatric men and women is presented in Table 5. Most participants reported maladaptive problem-focused and avoidant coping strategies, whereas adaptive emotion-focused coping was commonly observed in both groups.

Comparison of coping strategies

The comparison of mean coping strategy scores between geriatric men and women is presented in Table 6.

Statistically significant differences were observed in problem-focused coping ($p=0.001$) and avoidant coping ($p=0.018$), whereas no significant difference was found in emotion-focused coping ($p=0.775$).

DISCUSSION

The present study compared the level of perceived stress and coping strategies among geriatric men and women residing in a selected rural area of Uttar Pradesh. The findings revealed that the majority of both geriatric men and women experienced a moderate level of perceived stress. However, geriatric women had significantly higher mean stress scores than geriatric men. These findings indicate that stress is a common psychological concern among the rural elderly population and highlights the need for regular mental health assessment and supportive interventions.

The findings of the present study are consistent with the study conducted by Kumari A and Kannan V, who also reported that the majority of older adults experienced moderate levels of stress, while a smaller proportion had severe or mild stress. Similar findings suggest that ageing is associated with multiple physical, psychological, and social challenges that contribute to increased stress among older adults.¹⁰

With regard to coping strategies, the present study found that adaptive problem-focused coping was less frequently used, particularly among geriatric women, whereas adaptive emotion-focused coping was commonly adopted by both men and women. Maladaptive avoidant coping was highly prevalent in both groups. These findings suggest that although older adults attempt to regulate their emotions effectively, many continue to rely on avoidance rather than active problem-solving to deal with stressful situations.¹¹

The findings are supported by the study conducted by Mulik et al which reported a high prevalence of stress among older adults and emphasized that coping strategies were not consistently used. The similarity between the findings indicates the importance of strengthening effective coping mechanisms through community-based mental health interventions and psychosocial support programmes for the elderly.¹²

The present study also observed significant gender differences in stress and coping strategies. Geriatric women reported significantly higher perceived stress than men, whereas differences were observed in problem-focused and avoidant coping strategies between the two groups. These differences may be influenced by factors such as financial dependency, caregiving responsibilities, social support, marital status, and cultural expectations in rural communities.^{11,13}

Overall, the findings highlight the importance of gender-sensitive mental health services for older adults. Early identification of stress, promotion of adaptive coping strategies, psychosocial counselling, and community-based interventions may help improve the psychological well-being and quality of life of the rural geriatric population.^{13,14}

CONCLUSION

The present study concludes that geriatric women experienced significantly higher levels of perceived stress than geriatric men. Although women reported greater stress, they demonstrated better coping strategies, particularly emotion-focused coping. The findings highlight the need for gender-sensitive mental health interventions, early identification of stress, and the promotion of effective coping strategies among older adults. Strengthening community-based mental health services and psychosocial support may improve the psychological well-being and quality of life of the rural geriatric population.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Khanam S, Shaiju B, Anjum U. Assessment of stress and coping strategies among geriatric men and women in a selected rural area of Uttar Pradesh: a comparative study. *Int J Community Med Public Health* 2026;13:6513-9.