

# Assessing Psychological Status and Its Influence on Disease Development Among the Elderly

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## ABSTRACT

**Aim:** This study aimed to comprehensively assess various aspects of psychological well-being and their connection to health outcomes in the aging population.

**Materials & methods:** A randomly selected sample of older adults from diverse backgrounds was recruited for this study. Informed consent was obtained from each participant, emphasizing the voluntary nature of their participation. Quantitative research approach with non-experimental survey design was used to conduct the study in selected Old adults of Tiruchirappalli. Non-probability purposive sampling technique was adapted to select 100 elderly people from selected areas of Tiruchirappalli. Collected data were subjected to rigorous statistical analysis. A standardized Perceived Stress Scale (PSS) was used to assess the stress among elderly people.

**Results:** The majority of 57% elders had Low stress followed by 33% of Moderate stress and 9% of High level of stress. There was an association found between the levels of stress among the elder people with their BMI, disease condition, medication, health checkup.

**Conclusion:** The research findings indicated that a considerable portion of seniors living in areas experienced low level of stress.

**Keyword:** Stress, Elderly, Disease

## INTRODUCTION

Psychological wellbeing and health are closely linked at older ages. Psychological status, including depressive symptoms, anxiety, and mastery, was measured in a community-based sample of 3,076 persons aged 55 to 85 with various chronic diseases. Strong, linear associations were found between the number of chronic diseases and depressive symptoms and anxiety, indicating that psychological distress among elderly people is more apparent in the presence of (more) diseases. Psychological distress is most frequently experienced by patients with osteoarthritis, rheumatoid arthritis, and stroke, whereas diabetic and cardiac patients appear to be the least psychologically distressed. Increased oxidative stress has been suggested as a potential contributor to the aging process and age-related degenerative diseases. It is also implicated in various age-related conditions such as cardiovascular diseases, chronic obstructive pulmonary disease, chronic kidney disease, neurodegenerative diseases, and cancer. Stress-related disorders have been strongly linked to multiple types of cardiovascular disease, regardless of familial background or psychiatric comorbidity. Oxidative stress is thought to play a significant role in the rate of aging. Depression in the elderly is a prevalent healthcare issue, resulting from psychosocial stress, polypathology, and biochemical changes in the

aging brain. It can lead to cognitive impairments, increased medical symptoms, higher healthcare utilization, and elevated mortality rates. Depression is a leading cause of disability globally and a major risk factor for disability and mortality in elderly individuals. The prevalence of depression is highest in adults aged 80 years and older due to physical dysfunction and loss of personal control. A population study revealed a strong association between gastrointestinal symptoms, anxiety disorders, and depression. Additionally, a low dietary intake of folate may increase the risk of severe depression, suggesting that nutrition could play a role in its prevention.

## MATERIALS AND METHODS

To investigate the psychological status of elderly individuals and the impact of stress and depression on health, a structured survey methodology was employed. A randomly selected sample of older adults from diverse backgrounds was recruited for this study. Informed consent was obtained from each participant, emphasizing the voluntary nature of their participation. A quantitative research approach with non-experimental survey design was used to conduct the study in selected Old adults of Tiruchirappalli. Non-probability purposive sampling technique was adapted to select 100 elderly people from selected areas of Tiruchirappalli. The survey instrument was a carefully crafted questionnaire consisting of multiple sections. The first segment focused on structured questionnaire collected basic demographic information, including age, gender, marital status, educational background, and socioeconomic status.

This tool provided a foundation for characterizing the study participants. Subsequent sections incorporated validated scales to measure psychological well-being, stress, depression, and self-reported health status. The choice of scales was informed by a comprehensive literature review and aimed to ensure reliability and validity. Data were collected through [specify method of online surveys] to accommodate participants' preferences and ensure consistency in responses. Trained researchers administered the survey, maintaining a standardized approach to minimize bias. Collected data were subjected to rigorous statistical analysis. A standardized Perceived Stress Scale (PSS) was used to assess the stress among elderly people. The consent form was prepared for the study participant regarding their willingness to participate in the research study. Inclusion criteria: Elderly people aged 60-80 years, willing to participate in the study, available during the study period, and able to answer. Exclusion criteria: Persons with chronic physical & mental disability.

## RESULTS

The major results of the study were:-

<b>Demographic variables</b>	<b>Frequency (%)</b>
<b>Age(year)</b>	
60-65	33
66-70	33
71-75	20

76-80	14
<b>Gender</b>	
Male	52
Female	47
<b>Education</b>	
Literate	80
Illiterate	20
<b>Previous Occupation</b>	
Farmer	3
Retired	4
Unemployed	38
Other	55
<b>Socio economic status</b>	
Upper	8
Upper middle	35
Lower middle	10
Upper lower	34
Lower	13

The table 1 shows that frequency (%) distribution of demographic variables, the majority of the elders 33% were the age of 60 to 70, 52% were males, 80% were literate, 55% were employed, 35% were upper middle in socio economic status

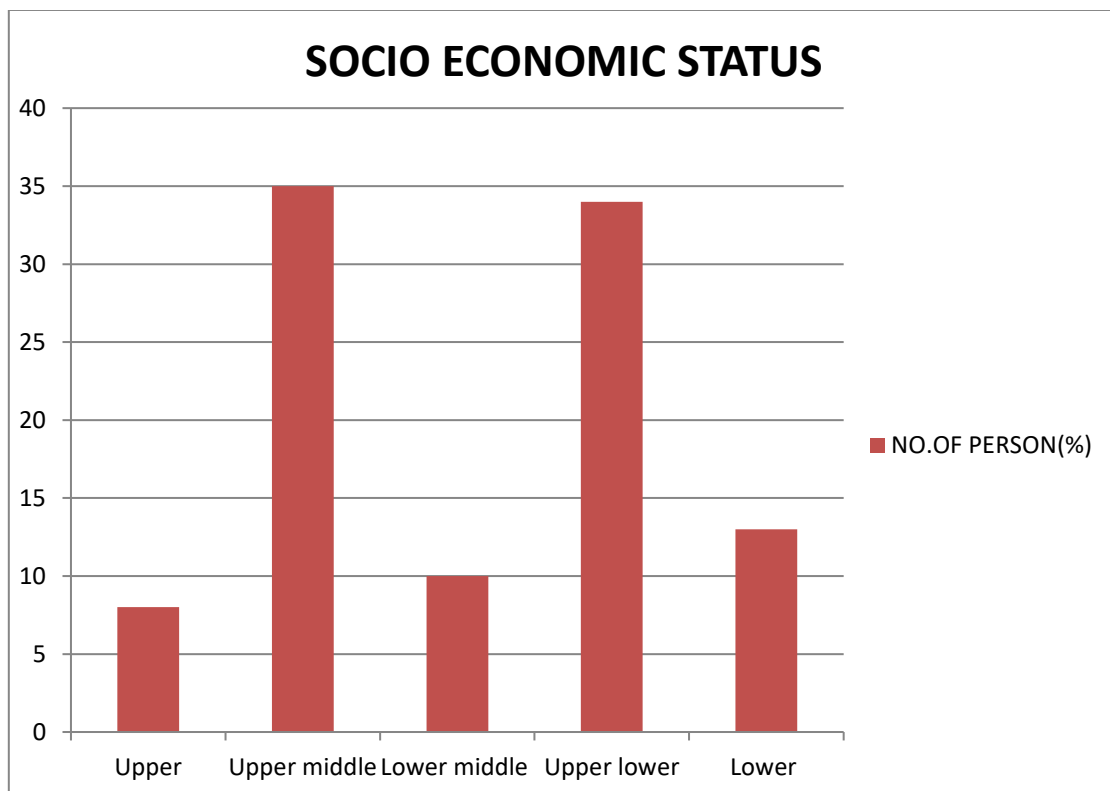


Figure 1 shows the socio economic status of the elderly which was calculated using kuppusswamy scale. It show that majority of people in upper middle (35%)

<b>Table 2: Frequency and percentage distribution of gradation of stress level among elderly</b>	
<b>Stress score</b>	<b>Frequency (%)</b>
Low stress	57
Moderate Stress	33
High stress	9

The table 2 exhibits the frequency (%) distribution of gradation of stress level among elderly; majority of 57% elders had Low stress followed by 33% of Moderate stress and 9% of High stress

<b>Table 3: Association between stress level with their health status</b>									
<b>Health status</b>	<b>Level of stress</b>			<b>X<sup>2</sup></b>	<b>df</b>	<b>P</b>			
<b>BMI</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>						
Underweight	1	0	0	4.16	6	0.10			
Normal	20	17	2						
Overweight	32	17	4						
Obese	4	0	3						
<b>Disease condition</b>									
Hypertension	23	23	4	20.17	22	0.10			
Diabetes	28	9	7						
Thyroid	4	7	2						
Anemia	11	10	6						
CVD	3	6	0						
Gastrointestinal problem	11	3	4						
Osteoporosis/Arthritis	18	17	3						
Cancer	1	4	2						
Asthma	7	4	1						
Piles	15	10	4						
Ulcer	14	13	3						
Allergy	8	4	2						
<b>Do you use any Medication regularly?</b>									
Yes	43	22	6				1.6	4	0.10
No	4	5	1						
Sometimes	11	6	2						
<b>How often do you go for Health checkup?</b>									
Annually	20	7	1	31.11	8	0.99			
Monthly	34	25	4						
Weekly	2	0	0						

Rarely	0	0	1			
Never	0	3	3			

Table 3 illustrate that Chi-square value in stress score with the selected Health status variables of BMI, Disease condition, medication and Health checkup was significant. Thus it can be concluded that there is an association between stress level with the BMI, Disease condition, Medication and health checkup

## DISCUSSION

The present study found that the most of elders 33% moderate stress followed by 9% high level of stress and 57% low stress. The present study found that there was an association between the levels of stress among the elder people with their BMI, Disease condition, Medication and Health checkup.

### Implication and Recommendation

The findings from this research provide valuable insights that can assist numerous respected institutions in organizing diverse awareness initiatives, workshops, and seminars. These programs aim to equip healthcare professionals, counselors, and key stakeholders with the tools necessary to support the mental well-being of the elderly by alleviating their stress levels. Replicating a similar study on a larger scale and over an extended duration could enhance the reliability and efficacy of interventions designed to address stress among older populations. Additionally, future research endeavors could explore experimental methodologies, offering further depth and understanding in subsequent studies.

## CONCLUSION

The research findings indicated that a considerable portion of seniors living in eldercare facilities experienced low levels of stress. The study revealed a substantial correlation between the stress levels of elderly individuals and their BMI, disease condition, Medication, Health checkup. It's crucial to note that this study's scope was confined to seniors residing in specific Tiruchirappalli, Tamilnadu, limited further to those physically capable of engaging in the study. Given these limitations, it becomes evident that there's an urgent requirement to devise intervention strategies aimed at enhancing the mental and physical well-being of elderly residents in such facilities.

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