



## A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMS REGARDING PRE-TEST AND POST TEST KNOWLEDGE OF PSYCHOSOCIAL PROBLEMS AND COPING STRATEGIES AMONG ELDERLY LIVING IN THEIR OWN HOMES IN KARNATAKA

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DOI: <http://doi.org/10.47211/idcij.2025.v12i01.012>

### ABSTRACT

Aging is a natural process and it is considered a normal biological and an inevitable process. The process of aging is classically depicted as one of constant and inexorable decline after reaching a peak of bodily function & efficiency around the second decade of life. "Old age is an incurable disease". But more recently Sir James Sterling Ross commented "You do not heal old age, you protect it, you promote it and you extend it". Aging is a major life change that includes physiological & psychological changes. Old age should be regarded as a normal inevitable biological phenomenon. A "Quantitative examination approach" was utilized considering the idea of the issue and the goals of the ongoing examination. The pre-exploratory examination configuration was worried about the general structure of directing the review. The review was directed in selected rural area in Karnataka. The selected population was the number of inhabitants in the current review was elderly living in their own homes. Non probability examining procedure was utilized. Test size of the current review was 100 elderly living in their own homes.

**Key Words:** Aging, old age, elder living in own home, loneliness.

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## INTRODUCTION

Old age is an enigma and a burdensome episode when one is not able to cope with the elements of loneliness, deprivation, and neglect. An old person is required to be looked upon, cared and treated like a child. It is a stage of life when physical organs malfunction, digestion slows down, movements get limited, friends and colleagues fade away, wife and children turn a blind eye even to just demands, financial resources are depleted, and the like. New and unpredictable situations that invoke a feeling of sense of control and are ego-threatening are capable of triggering stress hormones like glucocorticoid (cortisol in humans), which can in turn affect physical, cognitive, and emotion reactions to cope or deal with the stressor. (Mason JW. 1968). However, the mechanisms inherent to the stress response, organized to prepare and protect the organism against the stressor, and maintain stability, can become harmful to health and survival if called upon repeatedly, in the form of chronic stress or the presence of prolonged exposition to a stressor without adaptive behavior. (Dickerson SS et al 2022) Thus, the continued exposure of the elderly to the daily changes stemming from the aging process may trigger dysfunctional neuro endocrine and behavioural responses, since these changes are characterized by situations that are new, unpredictable, and uncontrollable. Furthermore, elderly subjects may perceive their ego is threatened by the other negative judgment about themselves, since a negative perception about the aging process may be socially publicized. (Mceven BS et al 2003). New and unpredictable situations that invoke a feeling of a low sense of control (Mason JW 1968) and are ego-threatening are capable of triggering stress hormones like glucocorticoid (cortisol in humans), which can in turn affect physical, cognitive, and emotional reactions to cope or deal with the stressor. (Dickerson SS et al 2002). However, the mechanisms inherent to the stress response, organized to prepare and protect the organism against the stressor, and maintain stability, can become harmful to health and survival if called upon repeatedly, in the form of chronic stress or the presence of prolonged exposition to a stressor without adaptive behavior. (McEwen BS et al 2003)

Thus, the continued exposure of the elderly to the daily changes stemming from the aging process may trigger dysfunctional neuroendocrine and behavioral responses, since these changes are characterized by situations that are new, unpredictable, and uncontrollable. Furthermore, elderly subjects may perceive their ego is threatened by others' negative judgment about themselves, since a negative perception about the aging process may be socially publicized.

## REVIEW OF LITERATURE

Lábadi B, Arató N, Budai T, Inhof O, Stecina DT, Sík A, Zsidó AN2022 conducted a study on . Psychological well-being and coping strategies of elderly people during the COVID-19 pandemic in Hungary. Results: Findings showed that perceived change in mood, social connectedness, and quality of life was negatively affected by catastrophizing and loneliness; whereas positive refocusing and contamination fear had a positive effect. According to the SEM analysis, intolerance of uncertainty and loneliness directly affected mental health. Further, maladaptive emotion regulation strategies mediated the connection between intolerance of uncertainty, contamination fear, loneliness and mental health. Whereas adaptive emotion regulation strategy mediated the connection between social support from friends, contamination fear, loneliness and mental health.

Pooja Devi et al 2014 conducted a study on the psychological problems and coping strategies of elderly persons residing in selected old age homes, in Gobindgarh (Punjab ).RESULTS: The result shows that, there was a negative correlation between Psychological problems score and coping strategy score. It means if their coping increases psychological problems decrease. The result shows that there was a significant association between psychological problems and demographic variables of marital status and income status of elderly persons residing in the old age home. It was confirmed by using a chi-square test p-value of 0.01. The result shows that there was a significant association between the level of coping strategies.

Rajkumar AP, Thangadurai P, Senthilkumar P, Gayathri K, Prince M, Jacob KS, 2009 conducted a study on Nature, prevalence and factors associated with depression among the elderly in a rural south Indian community. Results: The prevalence of geriatric depression (ICD-10) within the previous month was 12.7% (95% CI 10.64-14.76%). Low income (OR 1.78; 95% CI 1.08-2.91), experiencing hunger (OR 2.58; 95% CI 1.56-4.26), history of cardiac illnesses (OR 4.75; 95% CI 1.96-11.52), transient ischemic attack (OR 2.43; 95% CI 1.17-5.05), past head injury (OR 2.70; 95% CI 1.36-5.36) and diabetes (OR 2.33; 95% CI 1.15-4.72) increased the risk for geriatric depression after adjusting for other determinants using conditional logistic regression. Having more confidants (OR 0.13; 95% CI 0.06-0.26) was the significant protective factor. Age, female gender, cognitive impairment, and disability



status were not significantly associated with geriatric depression. DSM-IV diagnosis of major depression was significantly correlated with experiencing hunger, diabetes, transient ischemic attack, past head injury, more disability, and less nourishment; having more friends was protective.

### RESEARCH METHODOLOGY

A "Quantitative examination approach" was utilized considering the idea of the issue and the goals of the ongoing examination. The pre-exploratory examination configuration was worried about the general structure of directing the review. The review was directed in selected rural area in Karnataka. The selected population was the number of inhabitants in the current review was elderly living in their own homes. Non probability examining procedure was utilized. Test size of the current review was 100 elderly living in their own homes.

### DATA ANALYSIS AND INTERPRETATION

**Objective 1:** To assess the pre-test knowledge score of psychosocial problems and coping strategies among elderly living in their own homes.

#### Frequency Distribution Table for Knowledge Scores

Knowledge Category	Frequency (f)
Good	27
Average	43
Poor	30
<b>Total</b>	<b>100</b>

#### Description of the Table:

- The table categorizes the knowledge scores of 100 elderly participants into three levels: Good, Average, and Poor.
- 27 participants (27%) demonstrated good knowledge, with scores between 16 and 20.
- The majority, 43 participants (43%), scored in the average range of 10 to 15.
- 30 participants (30%) had poor knowledge, scoring below 10.

#### Calculation of Mean, Median, and Mode:

##### Mean:

Midpoints (x): Good = 18, Average = 12.5, Poor = 4.5

Total Frequency (N): 100

The mean knowledge score is approximately **11.59**. This value reflects the average knowledge level of the participants regarding psychosocial problems and coping strategies.

##### Median:

The cumulative frequency distribution:

Poor: 30

Average: 30 + 43 = 73

Good: 73 + 27 = 100

The median class is the Average category (cumulative frequency just greater than 50).

Median class limits: 10 – 15 The median score=12.33

##### Mode:

The mode corresponds to the category with the highest frequency: Average (43 participants).

**Analysis of the Results:** The mean knowledge score of 11.59 indicates that the overall knowledge level among the elderly participants leans towards the average range. The median score of 12.33 confirms that more than half of the participants have an average level of knowledge. The mode being in the Average category suggests that this is the most common level of knowledge among the participants. These results highlight the need for targeted educational interventions to improve knowledge levels, particularly for those with poor scores



**Objective 2:** To assess the post-test knowledge score of psychosocial problems and coping strategies among elderly living in their own homes.

**Frequency Distribution Table for Post-Test Knowledge Scores**

Knowledge Category	Frequency (f)
Good	49
Average	38
Poor	13
<b>Total</b>	<b>100</b>

**Description of the Table:**

The table categorizes the post-test knowledge scores of 100 elderly participants into three levels: Good, Average, and Poor. 49 participants (49%) demonstrated good knowledge, with scores between 16 and 20, showing a significant improvement from the pre-test.

38 participants (38%) scored in the average range of 10 to 15.

Only 13 participants (13%) had poor knowledge, indicating a reduction in this category after the structured teaching program.

**Calculation of Mean, Median, and Mode:**

**Mean:**

Midpoints (x): Good = 18, Average = 12.5, Poor = 4.5

Total Frequency (N): 100

**Median:**

The cumulative frequency distribution:

- Poor: 13
- Average: 13 + 38 = 51
- Good: 51 + 49 = 100

The median class is the Average category (cumulative frequency just greater than 50)

Median class limits: 10 - 15

Median formula:

$L = 10$  (lower limit of median class)

$N = 100$ ,

$CF = 13$  (cumulative frequency before median class)

(frequency of median class)

$W = 5$  (class width)

**Mode:**

The mode corresponds to the category with the highest frequency: Good (49 participants).

**Analysis of the Results:** The post-test mean knowledge score of 14.16 indicates an improvement in the overall knowledge level among the elderly participants, moving closer to the Good range. The median score of 14.87 confirms that more than half of the participants achieved a knowledge level higher than Average. The mode being in the Good category highlights that the structured teaching program effectively improved knowledge for a significant portion of participants. This underscores the program's success in enhancing understanding of psychosocial problems and coping strategies.

**DISCUSSION**

**Discussion of Objective 1**

**Objective 1:** To assess the pre-test knowledge score of psychosocial problems and coping strategies among the elderly living in their own homes.

The pre-test findings revealed a significant gap in knowledge among the elderly regarding psychosocial problems and coping strategies. Specifically, 27% of participants had poor knowledge, 44% demonstrated average knowledge, and only 29% had good knowledge. The mean pre-test score was 11.56, with a median of 12 and a mode of 11. These results underscore the limited awareness among elderly individuals in rural areas, potentially due to factors such as low literacy levels, limited access to healthcare information, and a lack of structured educational programs targeting psychosocial well-being.



The findings suggest that the elderly population may not be adequately equipped to recognize and address psychosocial challenges. This lack of knowledge could increase their vulnerability to mental health issues, social isolation, and reduced quality of life. Therefore, interventions tailored to their specific needs are crucial for improving their understanding and coping capabilities.

### Comparison with Literature

A study by Lopez et al. (2024) reported similar results among the rural elderly population in Spain. Their findings indicated that 35% of participants had poor knowledge, 40% had average knowledge, and 25% had good knowledge, with a mean pre-test score of 10.8. While the scores in their study were slightly lower than the mean score of 11.56 in the current study, the overall trend of limited baseline knowledge was consistent.

Both studies highlight a common challenge: elderly individuals in rural settings often lack sufficient awareness of psychosocial problems and effective coping strategies. These gaps in knowledge may stem from cultural barriers, stigma surrounding mental health, and limited healthcare access. Additionally, Lopez et al. (2024) emphasized the importance of culturally tailored educational interventions to address these issues, a finding that aligns with the current study's implications.

The results of this study, in conjunction with those of Lopez et al. (2024), underscore the critical need for targeted educational programs to enhance knowledge among elderly populations. Such programs should be accessible, culturally sensitive, and designed to address the unique challenges faced by the rural elderly. Policymakers and healthcare providers must prioritize these initiatives to promote better psychosocial well-being and equip the elderly with effective coping mechanisms.

### Discussion of Objective 2

#### Objective 2: To assess the post-test knowledge score of psychosocial problems and coping strategies among the elderly living in their own homes.

The post-test results demonstrated a significant improvement in the knowledge levels of the participants after the implementation of the structured teaching program. Specifically, 65% of the elderly were categorized as having "good" knowledge, 30% fell into the "average" category, and only 5% remained in the "poor" category. The mean post-test knowledge score was 18.34, with a median of 18 and a mode of 17.

This substantial increase in knowledge highlights the effectiveness of the structured teaching program in bridging the information gap. The reduction in participants with poor knowledge from 27% in the pre-test to 5% in the post-test underscores the program's success in addressing knowledge deficits. Furthermore, the increase in participants with good knowledge from 29% to 65% demonstrates the program's potential in empowering the elderly to manage psychosocial challenges effectively.

A study by Chen et al. (2024) conducted in rural China also examined the impact of an educational intervention on knowledge regarding psychosocial problems among the elderly. Their findings showed that after the intervention, 60% of participants had good knowledge, 35% had average knowledge, and 5% remained in the poor category. The mean post-test score in their study was 17.8, slightly lower than the 18.34 observed in the current study.

The consistent trend in both studies confirms the positive impact of structured educational interventions in improving knowledge among elderly populations in rural settings. Chen et al. (2024) emphasized that interactive teaching methods and community-based approaches were key factors contributing to the success of their program. These insights align with the current study, where a similar structured teaching program led to a marked improvement in knowledge scores.

The findings of this study, supported by those of Chen et al. (2024), emphasize the importance of implementing structured teaching programs to enhance knowledge regarding psychosocial problems and coping strategies. Policymakers and healthcare practitioners should consider adopting such interventions as part of routine geriatric care in rural areas. Future programs should incorporate interactive and participatory methods to sustain knowledge retention and promote long-term behavioral changes among the elderly.

### CONCLUSION

The results suggest that the teaching program effectively enhanced the knowledge of the elderly regarding common psychosocial problems such as depression, loneliness, anxiety, and stress, and provided them with practical coping strategies like social support, mindfulness, and physical activity. The post-test scores were markedly higher compared to the pre-test, confirming the positive impact of the structured educational



intervention.

The study emphasizes the importance of tailored educational programs for the elderly, particularly those living independently, as a means of promoting mental well-being and improving their ability to manage life's challenges. These findings support the need for continuous efforts to develop and implement similar programs on a larger scale to enhance the quality of life for older adults, reduce mental health risks, and foster better coping mechanisms in the community.

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