

A Study to assess the effectiveness of pet therapy on reduction of stress among old age people in a selected Old age Home, Bhubaneswar, Odisha

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Abstract

Population ageing has become a major public health concern worldwide, with advancing age often accompanied by physical decline, emotional challenges, and changes in social relationships. Older adults residing in institutional settings are particularly susceptible to psychological problems because of separation from family members, loss of loved ones, chronic illnesses, reduced independence, and limited social support. These factors frequently contribute to increased stress, adversely affecting both physical and psychological health. Consequently, there is a growing emphasis on identifying non-pharmacological interventions that can effectively enhance the emotional well-being of older adults. Pet therapy, commonly known as animal-assisted therapy, is an emerging complementary intervention that encourages interaction between individuals and trained animals to provide emotional support, companionship, relaxation, and social engagement. Evidence from previous studies indicates that such interactions may reduce psychological distress and improve overall quality of life among older adults.

The present study was conducted to evaluate the effectiveness of pet therapy in reducing stress among elderly residents of selected old age home at Bhubaneswar Old Age Home, Bhubaneswar. The specific objectives were to assess stress levels before and after the intervention, determine the effectiveness of the pet therapy programme, and identify the association between post-intervention stress levels and selected demographic characteristics.

A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted. The study included 60 elderly residents selected through a convenience sampling technique. Demographic information was collected using a structured questionnaire, while stress levels were measured using the standardized Perceived Stress Scale (PSS). After the baseline assessment, participants received a structured pet therapy intervention. Stress levels were reassessed using the same instrument following completion of the intervention. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize the data. The paired t-test was employed to compare pre-test and post-test stress scores, whereas appropriate inferential statistical tests were applied to examine the relationship between post-test stress levels and selected demographic variables. Statistical significance was considered at $p < 0.05$.

The baseline assessment indicated that stress was prevalent among the participants. Prior to the intervention, 60% of the elderly experienced moderate stress, 26.7% had high stress, and 13.3% reported low stress. Following the pet therapy programme, the distribution of stress levels improved considerably. The proportion of participants with low stress increased to 46.7%, an equal percentage (46.7%) demonstrated moderate stress, and only 6.6% continued to experience high stress. Furthermore, the mean stress score declined significantly from 24.3 ± 4.8 before the intervention to 15.2 ± 3.9 afterward. Statistical analysis using the paired t-test confirmed that the reduction in stress scores was statistically significant ($p < 0.05$), demonstrating the effectiveness of the intervention. Significant associations were also observed between post-test stress levels and demographic factors including age, duration of residence in the old age home, and frequency of family visits, whereas gender showed no significant relationship with post-intervention stress.

The findings suggest that pet therapy is an effective, feasible, and inexpensive complementary intervention for reducing stress among institutionalized older adults. Regular interaction with therapy animals appears to promote emotional comfort, decrease feelings of loneliness, encourage social participation, and improve overall psychological well-being. Incorporating structured pet therapy into routine geriatric care may strengthen holistic nursing practice and enhance the quality of life of elderly individuals living in residential care facilities. Further multicentre studies with larger samples and longer follow-up periods are recommended to establish the long-term effectiveness and broader applicability of pet therapy in promoting mental health among older adults.

(Keywords: Pet therapy, Animal-assisted therapy, Stress, Elderly, Old age home, Geriatric nursing, Psychological well-being, Non-pharmacological intervention, Mental health.)

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Introduction

Population ageing is one of the most prominent demographic changes observed across the world in recent decades. Advances in medical science, improved nutrition, better sanitation, and enhanced living conditions have significantly increased life expectancy, resulting in a growing proportion of older adults within the global population. While longevity reflects progress in healthcare and socioeconomic development, it is also accompanied by age-related physical, emotional, and social challenges that may compromise overall health and well-being. Among these concerns, psychological stress has become increasingly important because of its negative influence on physical functioning, emotional stability, and quality of life.

Older adults living in residential care facilities are especially vulnerable to emotional and psychological difficulties. Relocation from their family environment, loss of spouses or close relatives, declining physical health, dependency on others for daily activities, and reduced social interaction often create feelings of loneliness, helplessness, and insecurity. When these factors remain unaddressed, they may result in persistent stress, which can contribute to anxiety, depression, sleep disturbances, impaired immunity, cognitive decline, and poor adaptation to institutional life. Therefore, preserving mental health is recognized as an essential component of healthy ageing and comprehensive geriatric care.

In recent years, greater emphasis has been placed on holistic approaches that address both the physical and psychological needs of older adults. Healthcare professionals are increasingly encouraged to adopt person-centred interventions that promote emotional comfort, social participation, and overall well-being rather than relying solely on pharmacological management. Such complementary approaches can improve coping abilities, strengthen interpersonal relationships, and enhance life satisfaction among elderly individuals living in long-term care settings. Consequently, identifying simple, safe, and evidence-based interventions for stress reduction has become an important priority in geriatric nursing practice.

Among the various complementary interventions available, pet therapy, also referred to as animal-assisted therapy, has gained increasing recognition for its potential psychological benefits. This therapeutic approach involves planned interactions between individuals and trained animals under professional supervision to improve emotional, social, and psychological health. Contact with therapy animals is believed to provide companionship, encourage communication, reduce feelings of isolation, and create a sense of comfort and relaxation. Studies have also suggested that positive human-animal interaction may reduce physiological stress responses by lowering stress hormone levels while promoting the release of

hormones associated with relaxation and emotional well-being.

Evidence from international research has consistently reported favourable outcomes of pet therapy among older adults. Improvements have been observed in perceived stress, symptoms of anxiety and depression, emotional well-being, social interaction, and overall quality of life. In addition, regular interaction with therapy animals has been associated with increased motivation, enhanced participation in recreational activities, and improved psychological adjustment among elderly individuals residing in institutional settings. These encouraging findings support the inclusion of complementary therapies as part of holistic geriatric nursing care.

Despite these promising outcomes, research evaluating the effectiveness of pet therapy among institutionalized older adults in India remains relatively limited. Most available studies have focused on pharmacological management or conventional psychosocial interventions, creating a need for further evidence regarding innovative, non-pharmacological approaches. Generating locally relevant evidence is essential to determine whether such interventions are acceptable, feasible, and beneficial within Indian residential care settings. The findings from such studies can guide healthcare professionals in planning comprehensive mental health promotion programmes for older adults. Nurses have a crucial responsibility in promoting healthy ageing through comprehensive assessment, emotional support, therapeutic communication, health education, and implementation of evidence-based nursing interventions. Introducing complementary approaches such as pet therapy into routine nursing care may provide an effective strategy for improving psychological well-being among elderly residents of old age homes. Well-trained nursing personnel can play a significant role in organizing, supervising, and evaluating such interventions to ensure their effectiveness and sustainability.

Considering the increasing psychological needs of institutionalized older adults and the limited evidence available from Odisha, the present study was undertaken to evaluate the effectiveness of pet therapy in reducing stress among elderly residents of selected old age home at Bhubaneswar. The findings are expected to contribute to the existing body of nursing knowledge and provide evidence to support the integration of complementary therapeutic interventions into geriatric care. Furthermore, the results may assist nursing educators, administrators, clinicians, and policymakers in designing holistic mental health programmes aimed at enhancing the quality of life of older adults residing in long-term care facilities.

Need for the Study

Psychological health is an essential component of healthy ageing, yet emotional well-being often declines

with advancing age, particularly among older adults residing in long-term care institutions. Separation from family members, reduced social interaction, chronic health problems, physical dependency, and the loss of loved ones frequently contribute to increased stress and emotional distress. If left unmanaged, prolonged stress can negatively affect cognitive functioning, sleep patterns, immunity, emotional stability, and overall quality of life, ultimately increasing the need for healthcare support and long-term care services.

In recent years, increasing attention has been directed toward non-pharmacological approaches that promote mental well-being among older adults. Among these interventions, pet therapy, also known as animal-assisted therapy, has emerged as a promising complementary strategy. Research conducted in different countries has demonstrated that interaction with trained therapy animals can improve emotional health, decrease perceived stress, reduce symptoms of anxiety and depression, and encourage greater social participation. A systematic review and meta-analysis by **Chang et al.** further highlighted the positive effects of animal-assisted therapy on psychological, behavioural, cognitive, and physiological outcomes, supporting its integration into evidence-based geriatric nursing care.

Although international findings are encouraging, the application of pet therapy within routine elderly care remains limited in many developing countries, including India. Most residential care facilities continue to focus primarily on medical management, while complementary interventions designed to enhance psychological well-being are not routinely incorporated into daily care practices. Moreover, there is a scarcity of published Indian studies examining the effectiveness of pet therapy among institutionalized older adults, resulting in limited evidence to guide clinical practice and policy development.

Nurses are uniquely positioned to deliver holistic care that addresses both the physical and emotional needs of older adults. Incorporating safe, affordable, and evidence-based complementary interventions into routine nursing practice can improve emotional health while reducing dependence on pharmacological treatments. Pet therapy provides opportunities for companionship, emotional expression, relaxation, and meaningful social interaction, thereby contributing to a supportive therapeutic environment within residential care facilities. Its simple implementation and minimal adverse effects make it a feasible nursing intervention for promoting psychological well-being.

In addition, there is an increasing need to identify interventions that are culturally acceptable, practical, and sustainable within Indian geriatric care settings. Generating evidence from local populations is important for determining the effectiveness of such interventions and encouraging their integration into routine nursing services. Research findings may also assist nursing educators and healthcare administrators in developing guidelines and training programmes that support holistic approaches to elderly care.

Considering the growing burden of psychological stress among institutionalized older adults, the limited evidence available from Indian settings, and the expanding role of complementary therapies in nursing practice, the present study was undertaken to evaluate the effectiveness of pet therapy on stress among elderly residents of **selected old age home at Bhubaneswar**. The findings are expected to provide scientific evidence for incorporating pet therapy into geriatric nursing care and contribute to improving the psychological well-being and quality of life of older adults living in residential care facilities.

Objectives

General Objective

To evaluate the effectiveness of pet therapy on stress among elderly people residing in selected old age home at Bhubaneswar.

Specific Objectives

1. To assess the level of stress among elderly participants before the administration of pet therapy.
2. To assess the level of stress among elderly participants after the administration of pet therapy.
3. To determine the effectiveness of pet therapy in reducing stress among elderly participants.
4. To identify the association between post-test stress levels and selected demographic variables.

Study Design

The study adopted a **quantitative research approach** with a **pre-experimental one-group pre-test and post-test design** to determine the effectiveness of pet therapy in reducing stress among elderly individuals residing in an old age home. This design enabled the investigator to assess participants' stress levels before the intervention and compare them with the post-intervention findings to evaluate the impact of pet therapy.

Study Setting

The research was carried out at **selected old age home at Bhubaneswar**. This residential facility provides accommodation, healthcare support, and daily living assistance to older adults. The institution was selected because it had an adequate number of eligible residents and granted permission to conduct the study. The supportive environment of the institution also facilitated the smooth implementation of the pet therapy sessions and the collection of research data.

Study Population

The study population consisted of elderly residents living at selected old age home at Bhubaneswar during the period of data collection. These individuals represented the target group for assessing the effectiveness of pet therapy as a complementary intervention for stress reduction. Participants with different demographic backgrounds and durations of institutional stay were included to obtain a comprehensive understanding of the intervention's effectiveness among institutionalized older adults.

Eligibility Criteria

Inclusion Criteria

Participants were considered eligible for inclusion in the study if they fulfilled the following criteria:

- Older adults aged **60 years and above**.
- Permanent residents of selected old age home at Bhubaneswar during the study period.
- Individuals who were physically and mentally capable of participating in the intervention sessions.
- Elderly residents who were able to understand the study procedures and communicate their responses effectively.
- Participants who voluntarily agreed to participate and provided written informed consent.

Exclusion Criteria

The following individuals were excluded from participation:

- Elderly persons diagnosed with severe cognitive impairment, dementia, or major psychiatric disorders that could interfere with participation or accurate assessment.
- Residents with severe hearing, visual, or speech impairments that limited effective communication during data collection and intervention.
- Individuals who were critically ill, medically unstable, bedridden, or advised against participation by the attending healthcare provider.
- Residents who had a known fear of animals, allergy to animals, or any medical condition that could be aggravated by interaction with therapy animals.
- Elderly individuals who declined to participate or withdrew their consent at any stage of the study.

Sample Size

A total of **60 elderly participants** meeting the eligibility criteria were included in the study.

Sampling Technique

A non-probability convenience sampling method was employed to recruit participants for the study. Elderly residents who met the predefined eligibility criteria and voluntarily agreed to participate were enrolled consecutively until the desired sample size of 60 participants was attained.

Intervention

The intervention consisted of a structured pet therapy programme conducted after the baseline assessment. Participants interacted with trained therapy animals under supervision according to a predetermined schedule. The intervention was designed to encourage emotional engagement, relaxation, social interaction, and companionship in a safe and controlled environment.

Study Variables

Independent variable

- Pet therapy.

Dependent variable

- Stress level among elderly participants.

Data Collection Instruments

Two instruments were used to obtain the required information from the participants.

Tool I: Demographic Proforma

A structured demographic proforma was prepared by the investigator to obtain baseline information about the participants. The questionnaire included variables such as age, gender, educational qualification, marital status, previous occupation, duration of residence in the old age home, presence of chronic medical conditions, and frequency of family visits. These variables were collected to describe the study population and to examine their possible association with post-intervention stress levels.

Tool II: Perceived Stress Scale (PSS)

The **Perceived Stress Scale (PSS)** was used to assess the stress levels of the participants. It is a standardized and widely accepted instrument designed to measure the degree to which individuals perceive situations in their daily lives as stressful. The scale evaluates feelings and thoughts related to stress experienced during the previous few weeks. Higher total scores represent higher perceived stress, whereas lower scores indicate lower levels of perceived stress. The PSS has been extensively used in geriatric and mental health research because of its simplicity, validity, and ease of administration.

Validity and Reliability

Prior to data collection, the study instruments were evaluated to ensure their suitability for the research objectives. The demographic proforma was reviewed by experts from the fields of Medical-Surgical Nursing, Psychiatric Nursing, Community Health Nursing, and Nursing Research. Their recommendations regarding content, clarity, and relevance were incorporated to improve the quality of the instrument.

The Perceived Stress Scale is an internationally recognized standardized instrument with well-established psychometric properties. Previous research has reported satisfactory levels of validity and reliability across different populations, including older adults. Owing to its proven accuracy and consistency, the scale was considered appropriate for assessing perceived stress among the elderly participants included in the present study.

Data Collection Procedure

Before initiating the study, formal administrative approval was obtained from the management of **selected old age home at Bhubaneswar**. Eligible elderly residents were approached individually, and the purpose, objectives, procedures, potential benefits, and voluntary nature of the study were explained in simple and understandable language. Written informed consent was obtained from all participants before enrolment.

Baseline demographic information was collected using the structured demographic proforma, followed by assessment of pre-intervention stress levels using the Perceived Stress Scale. After completion of the baseline

assessment, participants underwent the planned pet therapy sessions according to the predetermined schedule. The intervention was conducted in a calm and supervised environment to ensure participants' comfort and safety. Upon completion of the intervention period, stress levels were reassessed using the same standardized Perceived Stress Scale. Throughout the study, participants' privacy was respected, confidentiality of the collected information was maintained, and all data were used exclusively for research purposes.

Ethical Considerations

The study was carried out in accordance with accepted ethical principles governing research involving human participants. Prior administrative permission was obtained from the concerned authorities before commencement of the investigation. Each participant received adequate information regarding the purpose, procedures, expected benefits, and voluntary nature of the study before providing written informed consent. Participation was entirely voluntary, and participants were informed of their right to refuse participation or withdraw from the study at any stage without affecting the services provided by the institution. Confidentiality and anonymity were ensured by assigning identification codes instead of recording personal identifiers. All information collected during the study was kept secure and used solely for academic and research purposes. Respect for the dignity, privacy, and rights of every participant was maintained throughout the research process.

Statistical Analysis

Following data collection, all responses were checked for completeness, coded appropriately, and entered into **Microsoft Excel** before being exported to the **Statistical Package for the Social Sciences (SPSS)** for statistical analysis. Descriptive statistics, including frequency, percentage, mean, standard deviation, median, and interquartile range, were used to summarize participants' demographic characteristics and stress scores.

The effectiveness of the pet therapy intervention was determined by comparing pre-test and post-test stress scores using the **paired Student's t-test**. Appropriate inferential statistical tests were also applied to examine the association between post-intervention stress levels

and selected demographic variables. Statistical significance was established at a **5% level of significance ($p < 0.05$)**, and all findings were interpreted using a **95% confidence interval**. The analysed data were presented in tables and narrative form to facilitate clear interpretation of the study results.

Results

A total of **60 elderly residents** from the selected old age home participated in the study, and all participants successfully completed both the pre-intervention and post-intervention assessments. Information related to their demographic characteristics was collected to describe the study population and to examine the relationship between selected background variables and post-intervention stress levels. The demographic variables included **age, gender, educational qualification, marital status, previous occupation, duration of residence in the old age home, presence of chronic illness, and frequency of family visits**. These characteristics provided a comprehensive overview of the participants' personal and social backgrounds, which may influence their psychological well-being.

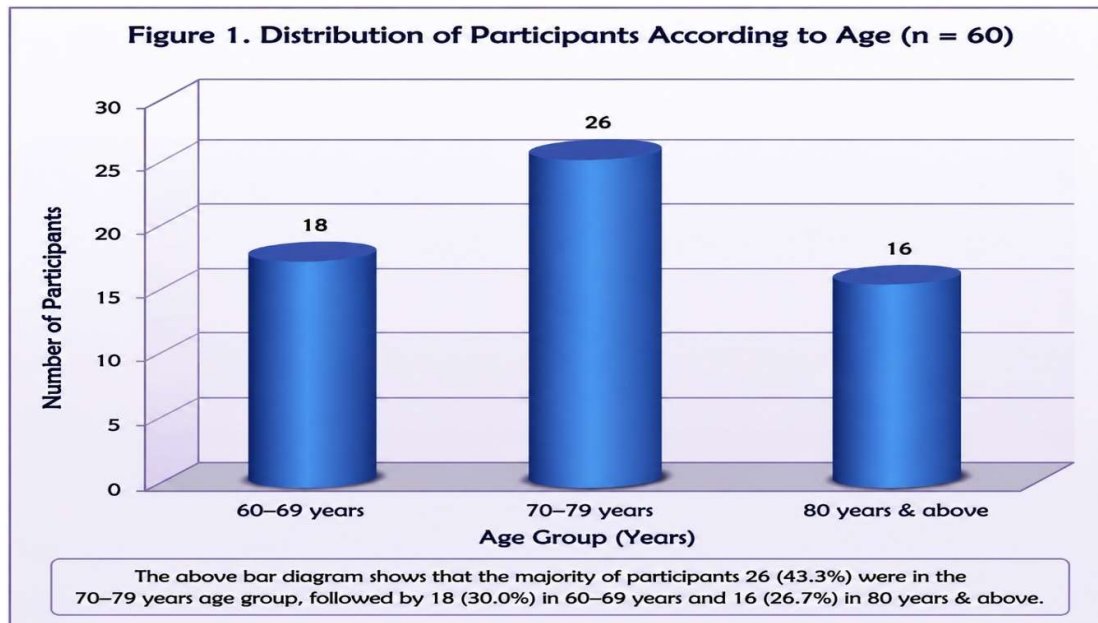
SECTION I: Demographic Profile of the Participants

This section presents the distribution of the study participants according to their selected demographic characteristics. Information regarding **age, gender, educational status, marital status, previous occupation, duration of stay in the old age home, presence of chronic illness, and frequency of family visits** was analysed to describe the characteristics of the study population. Understanding these variables was important to provide a clear profile of the participants and to explore their possible association with post-intervention stress levels.

The collected demographic data were summarized using **descriptive statistical methods**, including **frequency and percentage distributions**. The findings are presented in tabular form to facilitate easy interpretation and provide a comprehensive overview of the characteristics of the elderly residents included in the study. This demographic profile also serves as the basis for interpreting the effectiveness of the pet therapy intervention among participants with diverse backgrounds.

Table4.1: Distribution of Participants According to Age (n= 60)

Age Group (Years)	Frequency (n)	Percentage (%)
60–69	18	30.0
70–79	26	43.3
80 years and above	16	26.7
Total	60	100.0



Interpretation:-

The figure illustrates the age-wise distribution of the study participants. Among the **60 elderly respondents**, the largest proportion (**26; 43.3%**) belonged to the **70-79 years** age group. This was followed by **18 participants (30.0%)** who were aged **60-69 years**. The remaining **16 participants (26.7%)** were **80 years of age or older**. The findings indicate that the majority of the study population comprised elderly individuals between **70 and 79 years**, suggesting that this age group represented the largest segment of residents in the selected old age home.

Table 4.2. Distribution of Participants According to Gender (n = 60)

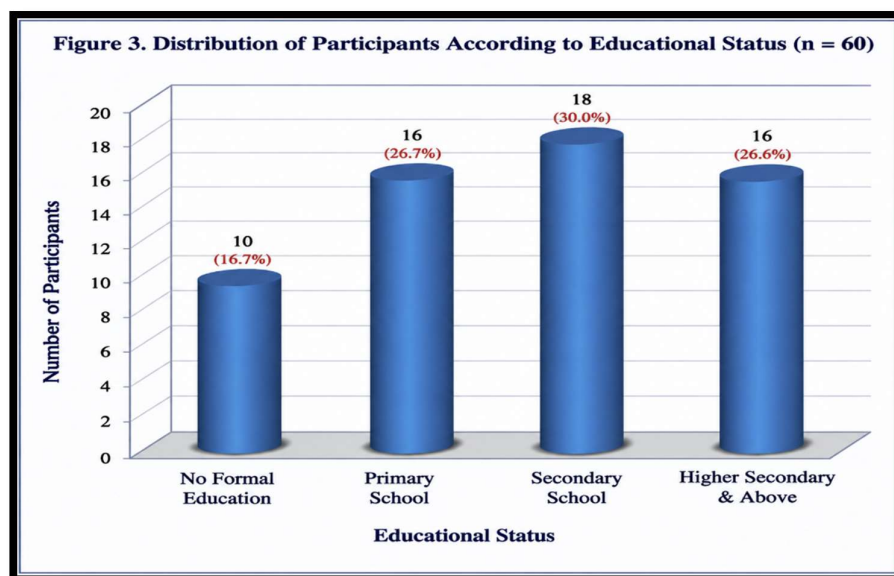
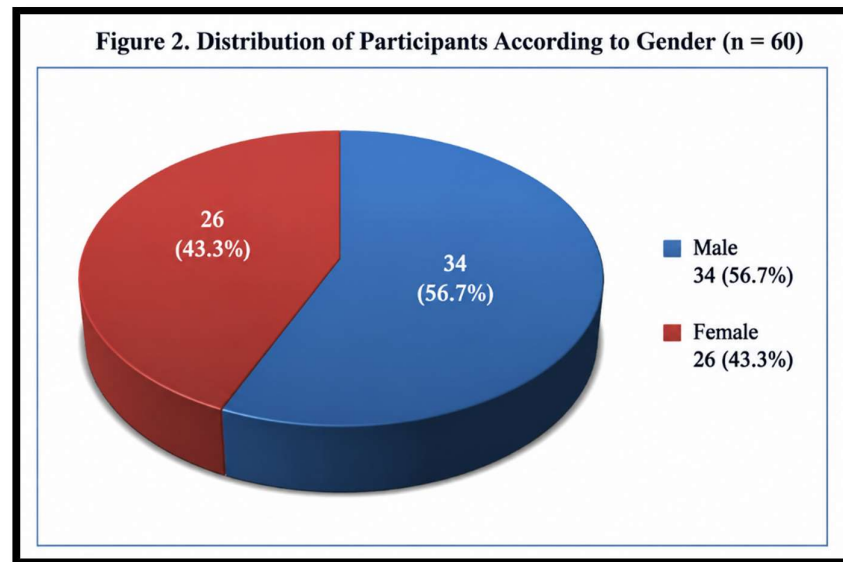
Gender	Frequency (n)	Percentage (%)
Male	34	56.7
Female	26	43.3
Total	60	100.0

Interpretation:-

The pie chart interpretation shows the number of participants who took part in the research based on their gender. Out of a total of 60 elderly participants, 34 (56.7%) were males, while 26 (43.3%) were females. This shows that most of the participants were male elderly people living in the old age home where the research was conducted.

Table 4.3. Distribution of Participants According to Educational Status (n = 60)

Educational Status	Frequency (n)	Percentage (%)
No Formal Education	10	16.7
Primary School	16	26.7
Secondary School	18	30.0
Higher Secondary & Above	16	26.6
Total	60	100.0

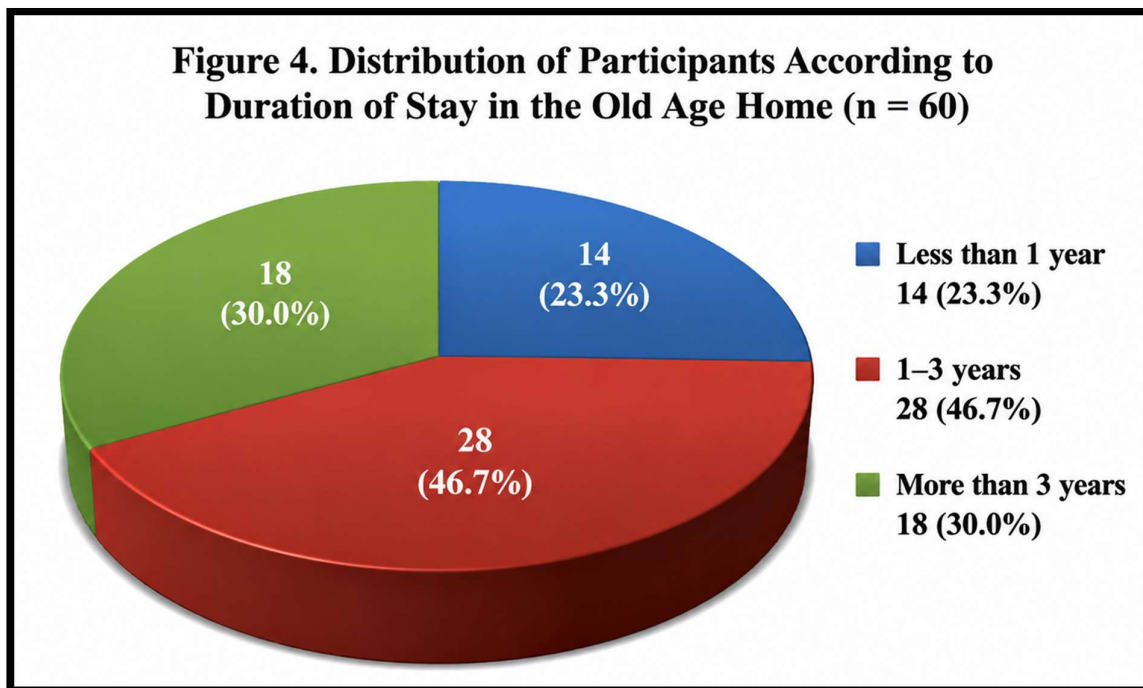


the above figure depicts the educational status of the study participants. Among the **60 elderly respondents**, the highest proportion (**18; 30.0%**) had completed **secondary (high school) education**. **Sixteen participants (26.7%)** had attained

primary education, while 16 participants (26.7%) had completed education beyond the secondary level. The remaining 10 participants (16.7%) had no formal education. These findings suggest that the majority of the elderly residents had received some level of formal education, with secondary education being the most commonly reported educational qualification.

Table 4.4. Distribution of Participants According to Duration of Stay in the Old Age Home (n = 60)

Duration of Stay	Frequency (n)	Percentage (%)
Less than 1 year	14	23.3
1–3 years	28	46.7
More than 3 years	18	30.0
Total	60	100.0

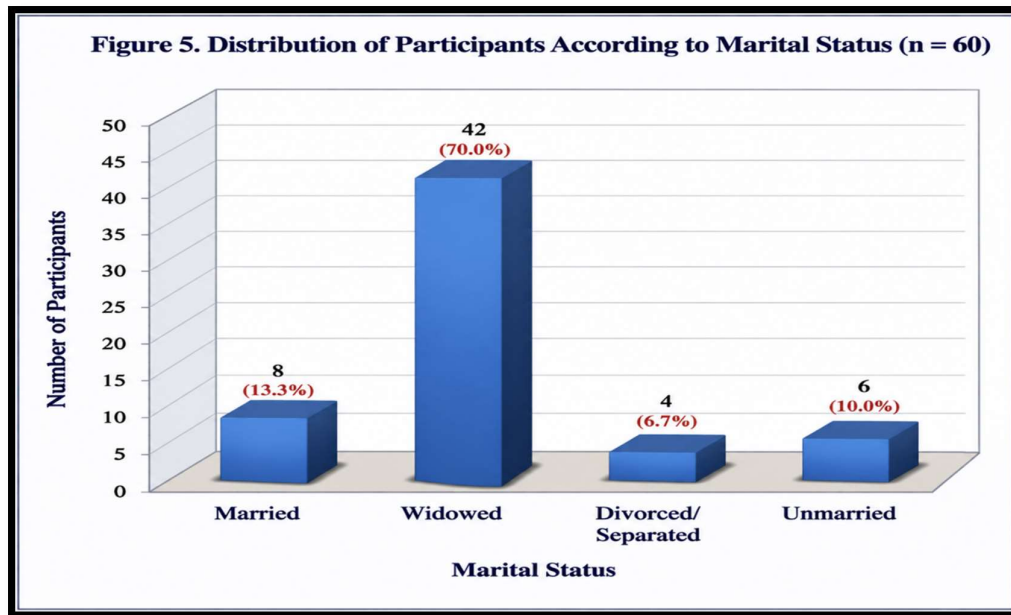


Interpretation :-

The pie chart above shows how the participants have been distributed based on how long they have been staying in an old age home. In total, there were 60 elderly participants involved. Of these 60 participants, 28 (46.7%) have been residing in the old age home for 1–3 years making it the largest number of participants among all. After this, comes 18 (30.0%) participants that have stayed in the old age home for more than 3 years. The other remaining 14 (23.3%) participants have spent less than one year in the old age home. The statistics show that around half of the elderly participants had the duration of stay of 1–3 years in the old age home facility.

Table 4.5. Distribution of Participants According to Marital Status (n = 60) :-

Marital Status	Frequency (n)	Percentage (%)
Married	8	13.3
Widowed	42	70.0
Divorced/Separated	4	6.7
Unmarried	6	10.0
Total	60	100

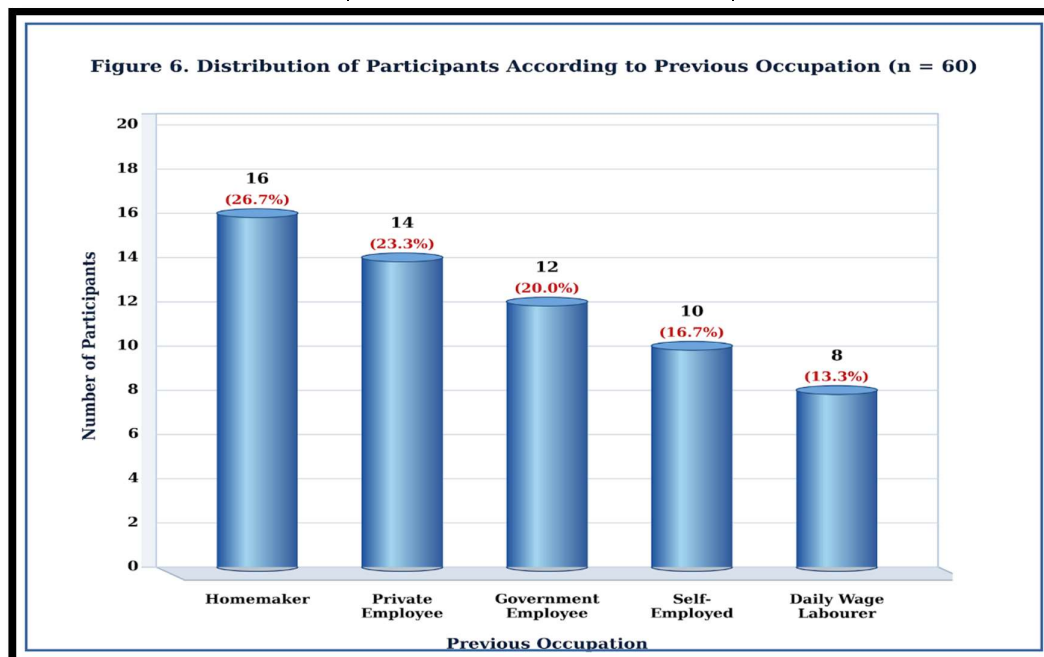


Interpretation :-

The given bar graph illustrates the various categories of respondents based on their marital status. Among 60 elderly participants, most, i.e., 42 (70.0%) of them, were widows; followed by 8 (13.3%) married, 6 (10.0%) were single, and 4 (6.7%) respondents were either divorced or separated. It can be concluded that a majority of the elderly population staying in the selected old age home consists of widows.

Table 4.6. Distribution of Participants According to Previous Occupation (n = 60)

Previous Occupation	Frequency (n)	Percentage (%)
Government Employee	12	20.0
Private Employee	14	23.3
Self-employed	10	16.7
Homemaker	16	26.7
Daily Wage Labourer	8	13.3
Total	60	100.0



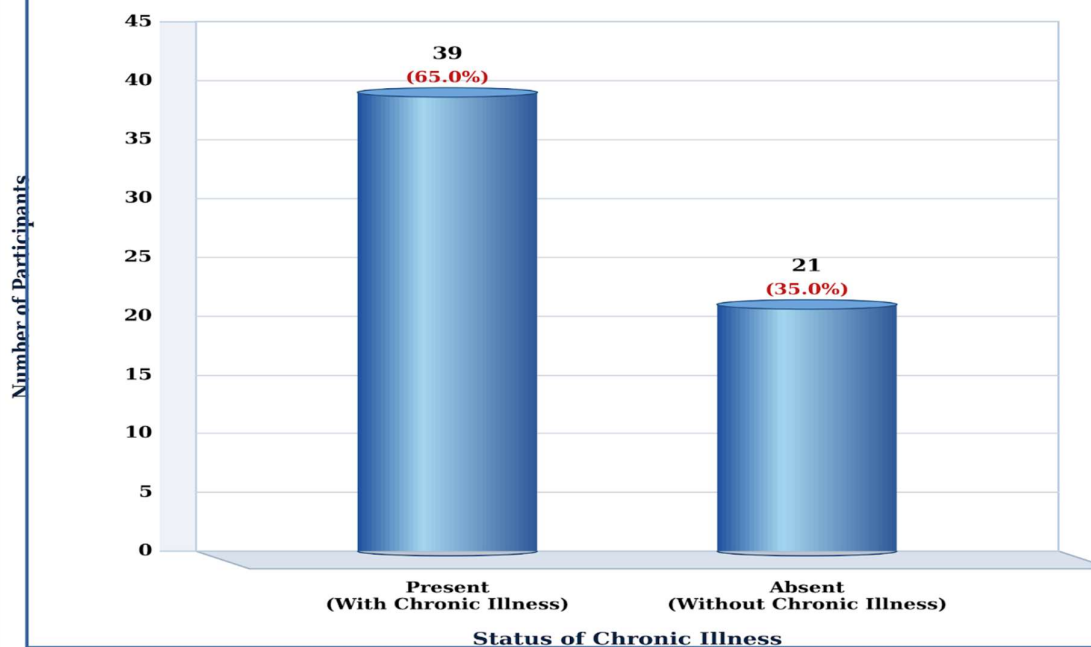
Interpretation

The column diagram presented above shows how the elderly people are divided according to their work history. Out of an entire 60 elderly people surveyed, there are 16 homemakers, which means that this group is the largest compared to the whole group of elderly people who had participated in the research. 14 old people were private workers, 12 were civil servants, there were 10 self-employed elderly people, and the last group consisted of 8 daily wage workers. We can conclude from these results that the majority of elderly people have been homemakers before they came to the old age home.

Table 4.7. Distribution of Participants According to Presence of Chronic Illness (n = 60) :-

Presence of Chronic Illness	Frequency (n)	Percentage (%)
Yes	39	65.0
No	21	35.0
Total	60	100.0

Figure 7. Distribution of Participants According to Status of Chronic Illness (n = 60)

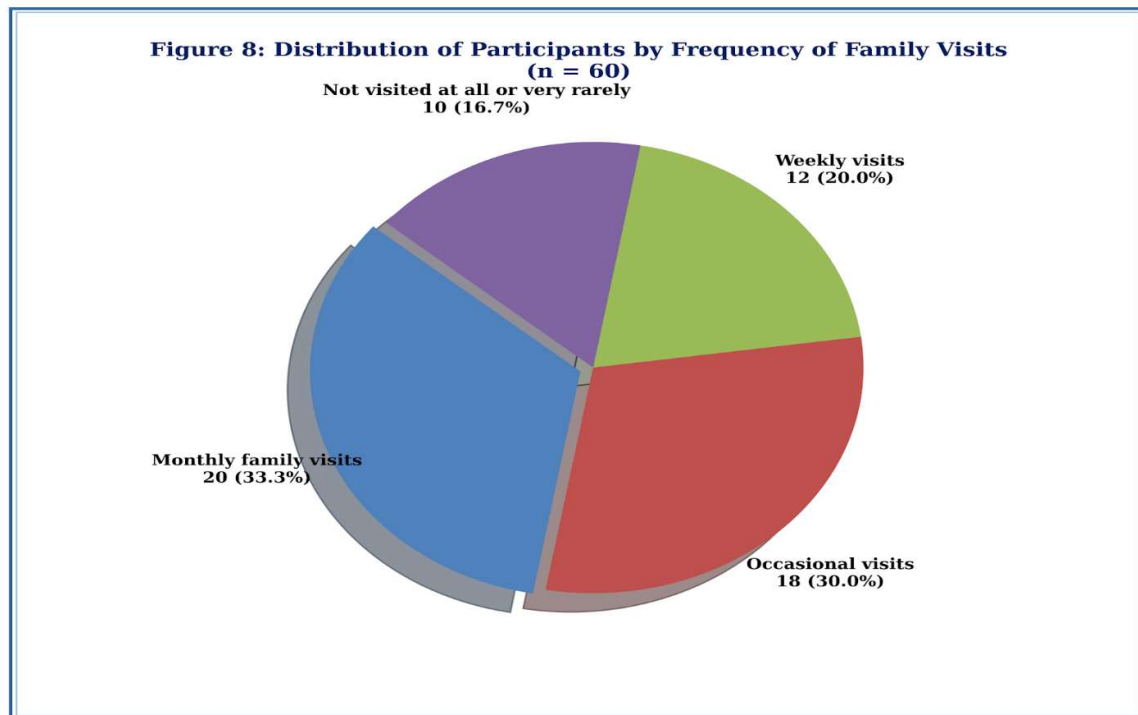


Interpretation :-

According to the previous table, participants are classified based on whether or not they suffer from chronic diseases. Out of the 60 elder individuals surveyed, 39 (65.0%) were identified as having chronic illnesses, whereas 21 (35.0%) did not have any chronic illnesses. The study shows that most elder participants living in the chosen old age home have one or more chronic illnesses.

Table 4.8. Distribution of Participants According to Frequency of Family Visits (n = 60)

Frequency of Family Visits	Frequency (n)	Percentage (%)
Weekly	12	20.0
Monthly	20	33.3
Occasionally	18	30.0
Rarely/Never	10	16.7
Total	60	100.0



Interpretation:-

The table presented above describes how participants are distributed, with respect to the frequency of family visits. There are a total of 60 elderly participants, and among these, the highest number that is 20 (33.3 %) received monthly family visits. Other participants include 12 (20.0 %) participants who received weekly visits, 18 (30.0 %) who received occasional visits, and the remaining 10 (16.7 %) who were either not visited at all or visited very rarely by their family members. Thus, it could be stated that most of the elderly participants enjoyed monthly family visits while a notable number received family visits very rarely or occasionally.

SECTION-II: STUDY FINDINGS

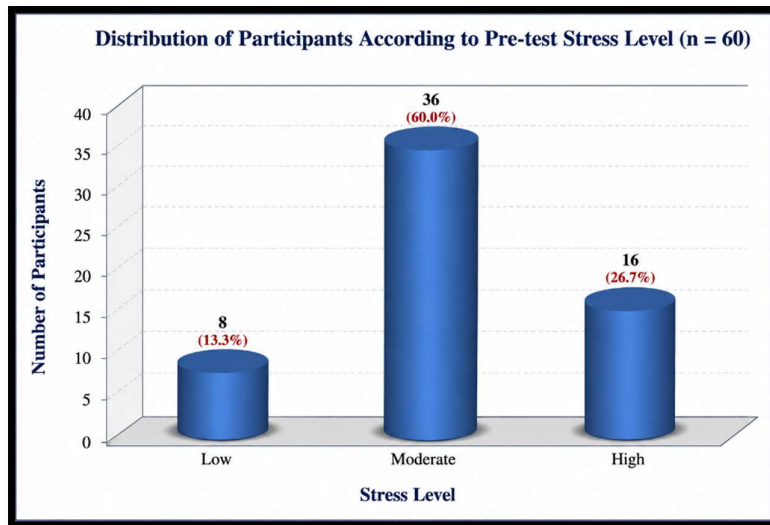
This section deals with the analysis and interpretation of the findings related to the effectiveness of pet therapy on stress among elderly participants. The stress levels were assessed before and after the intervention using a standardized scale.

Baseline Stress Level

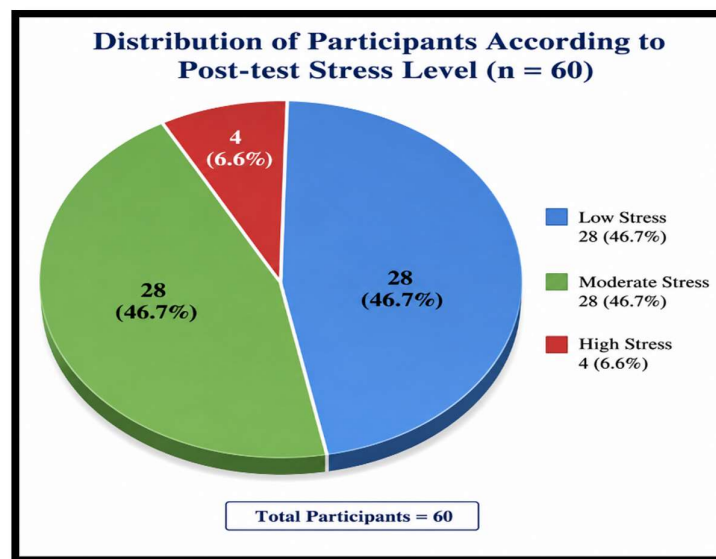
The pre-test assessment revealed that stress was common among the study participants. Most participants (60.0%) experienced **moderate stress**, followed by 26.7% with **high stress** and 13.3% with **low stress**, indicating a considerable psychological burden among elderly residents before the intervention.

Table 4.9. Distribution of Participants According to Pre-test Stress Level

Stress Level	Frequency (n=60)	Percentage (%)
Low	8	13.3
Moderate	36	60.0
High	16	26.7



The above bar chart illustrates the distribution of participants according to their **pre-test stress levels**. Among the **60 elderly participants**, the majority (**36; 60.0%**) experienced **moderate stress** before the implementation of the pet therapy programme. **Sixteen participants (26.7%)** were found to have **high stress**, while **8 participants (13.3%)** exhibited **low stress** levels. These findings indicate that a considerable proportion of the elderly residents were experiencing moderate to high levels of stress prior to the intervention, highlighting the need for an effective non-pharmacological strategy such as pet therapy to improve their psychological well-being.



Post-intervention Stress Level

Following the administration of pet therapy, a noticeable improvement in stress status was observed. Nearly half of the participants (**46.7%**) demonstrated **low stress**, while **46.7%** had **moderate stress**, and only **6.6%** remained in the **high stress** category.

Table 4.10. Distribution of Participants According to Post-test Stress Level

Stress Level	Frequency (n=60)	Percentage (%)
Low	28	46.7
Moderate	28	46.7
High	4	6.6

Interpretation:-

The pie chart shown here depicts the number of participants categorized by their post-test stress levels after going through pet therapy. From the total of 60 participants, 28 (46.7%) had low levels of stress and 28 (46.7%) had moderate levels of stress, while there remain only 4 participants in the high-stress category (6.6%). Thus, it may be concluded that the therapy resulted in significant changes in the participants' stress levels as it led to a much higher share of participants with low stress levels and a much lower share of participants with high levels of stress.

Table 4.11. Comparison of Pre-test and Post-test Stress Levels (n = 60)

Stress Level	Pre-test (f)	Post-test (f)
Low Stress	8	28
Moderate Stress	36	28
High Stress	16	4

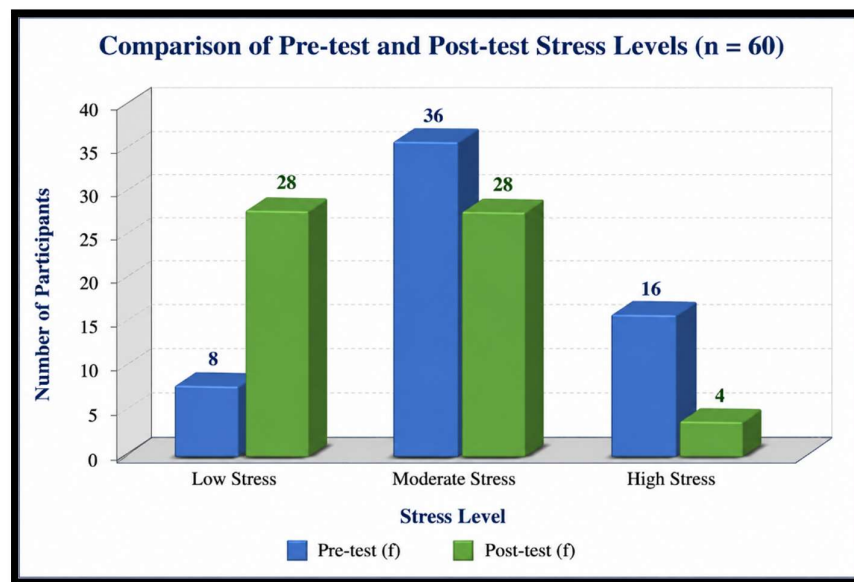


Table 3 presents a comparison of the participants' stress levels before and after the implementation of the pet therapy programme. During the pre-test assessment, **8 participants (13.3%) had low stress, 36 participants (60.0%) experienced moderate stress, and 16 participants (26.7%) reported high stress.** Following the intervention, a noticeable improvement in stress levels was observed. The number of participants with **low stress** increased to **28 (46.7%)**, while **28 participants (46.7%)** remained in the **moderate stress** category. The proportion of participants experiencing **high stress** declined markedly to **4 (6.6%)**. These findings demonstrate a favourable shift in stress distribution after pet therapy, indicating that the intervention contributed to a reduction in stress among the elderly residents.

Effectiveness of Pet Therapy

The effectiveness of the pet therapy programme was assessed by comparing the participants' mean stress

scores before and after the intervention. The **mean pre-test stress score** was 24.3 ± 4.8 , which decreased to 15.2 ± 3.9 in the **post-test**, reflecting a considerable reduction in perceived stress following the therapy sessions.

The statistical significance of this improvement was evaluated using the **paired Student's t-test**. The analysis revealed a **statistically significant difference ($p < 0.05$)** between the pre-test and post-test mean stress scores. These findings confirm that the pet therapy intervention was effective in reducing stress among the elderly participants. The observed reduction in stress levels suggests that regular interaction with therapy animals may serve as a valuable complementary approach for promoting emotional well-being and improving the psychological health of older adults residing in institutional care settings.

Table 4.12 . Comparison of Pre-test and Post-test Stress Scores

Variable	Mean $\pm$ SD	Mean Difference	Statistical Test	p-value
Pre-test Stress Score	24.3 ± 4.8			

*Statistically significant at $p < 0.05$

Interpretation

Table X compares the mean stress scores of the participants before and after the pet therapy intervention. The **mean pre-test stress score** was 24.3 ± 4.8 , whereas the **mean post-test stress score** decreased to 15.2 ± 3.9 , resulting in a **mean difference of 9.1 points**. The reduction in the mean stress score indicates a considerable improvement in the psychological well-being of the elderly participants following the intervention. Statistical analysis using the **paired Student's *t*-test** demonstrated that the difference between the pre-test and post-test scores was **statistically significant ($p < 0.05$)**. These findings indicate that pet therapy was effective in reducing perceived stress among the elderly residents included in the study.

Association between Post-test Stress Levels and Selected Demographic Variables

The relationship between post-intervention stress levels and selected demographic characteristics was examined using appropriate inferential statistical methods. The analysis revealed that **age, duration of stay in the old age home, and frequency of family visits** were significantly associated with post-test stress levels, indicating that these factors influenced participants' stress status after the intervention. In contrast, **gender** did not show a statistically significant association with post-test stress levels. These findings suggest that certain demographic characteristics may affect the extent to which elderly individuals benefit from pet therapy and should be considered while planning psychological support programmes in residential care settings.

Summary of Findings

The findings of the present study demonstrated that the pet therapy programme produced a meaningful reduction in stress among elderly residents of the selected old age home. Following the intervention, the proportion of participants experiencing **high stress** decreased substantially from **26.7%** to **6.6%**, while the proportion with **low stress** increased from **13.3%** to **46.7%**. A corresponding reduction in the overall mean stress score was also observed.

Statistical analysis confirmed that the improvement in stress levels after the intervention was **statistically significant ($p < 0.05$)**, thereby supporting the effectiveness of pet therapy as a complementary non-pharmacological intervention. The findings indicate that structured interaction with therapy animals can contribute to improved emotional well-being, reduced psychological stress, and enhanced quality of life among elderly individuals residing in institutional care facilities. These results also emphasize the potential role of pet therapy as a valuable component of holistic geriatric nursing practice and mental health promotion programmes.

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