Anxiety Among Old Age People and Their Relationship with Selected Socio-Demographic Variables: A Study from Western Maharashtra

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KEYWORDS

Anxiety, Elderly, Sociodemographic Variables, Old Age Homes, Mental Health

ABSTRACT

Background: Anxiety among elderly individuals residing in old age homes is a significant concern that can impact their overall well-being and quality of life. Understanding the association between anxiety levels and sociodemographic variables can provide insights into potential risk factors and inform targeted interventions.

Objective: This study aims to examine the association between pre-test anxiety scores and selected sociodemographic variables among elderly residents in selected old age homes.

Methods: A cross-sectional study was conducted with elderly individuals residing in old age homes. Pre-test anxiety levels were assessed using the Geriatric Anxiety Inventory. Sociodemographic variables, including age, gender, socioeconomic status, education level, marital status, and health conditions, were collected through structured questionnaires. Statistical analyses, including correlation and regression analyses, were performed to explore the relationships between anxiety scores and sociodemographic factors.

Results: The study found significant associations between pre-test anxiety scores and several sociodemographic variables. Specifically, revealed that a significant association found between anxiety with demographic variables like education (X2 =20.842) & (p-value-0.0076), monthly income of the family (X2 =11.311) & (p-value-0.0035), and contact with a family member (X2 =16.773) & (p-value-0.0102).

Conclusion: The findings suggest that sociodemographic factors play a crucial role in the anxiety levels of elderly individuals in old age homes. These insights highlight the need for tailored interventions that address the specific needs of different demographic groups to improve mental health outcomes among the elderly.

Introduction

The population of the globe is ageing rapidly, and in certain nations the proportion of elderly people is rising very substantially. This demographic shift has caused individuals to focus more on the particular social, psychological, and physical issues elderly people deal with. One major issue with these issues is that they make individuals anxious, particularly elderly persons residing in assisted living facilities. When you have too much anxiety, dread, or uneasiness, it is known as anxiety; it may seriously affect the quality of life and general health of elderly people. Many various factors contribute to elderly persons living in institutions—such as old age homes—more likely to be anxious. Some of them include losing their independence, becoming unwell, separating from family and friends, having unclear finances, and adjusting to a different surroundings. Older folks are more likely to have other diseases at the same time, such as depression, cognitive decline,

and long-term diseases, so treating anxiety in them is more difficult than in younger persons. This makes elderly people's anxiety still not generally acknowledged or addressed.

Studies of sociodemographic elements like age, gender, income, married status, and degree of education have shown that these factors greatly influence the amount of anxiety experienced by older individuals. One instance is how uncertain money may aggravate anxiety. Still, education is usually connected to greater resources and better methods of handling things. Moreover, having family support and personal ties helps you stay emotionally steady and provides a feeling of connection, therefore reducing anxiety. On the other hand, little research has been conducted on the interactions among these components in hospital treatment. The special environment of old age homes might either cause anxiety or reduce it. Through these sorts of organisations, people without many friends or

relatives may feel safer, more orderly, and able to get medical treatment, therefore helping to reduce their anxiety. Living in an assisted living facility, on the other hand, might exacerbate anxiety because to social humiliation, absence of regular social networks, and lack of freedom. Target therapies depend on our knowledge of how institutional settings influence concern and thus sociodemographic elements.

Older persons with anxiety have demonstrated benefit from certain non-drug based therapies like music therapy, yoga-nidra, cognitive-behavioral therapy (CBT). These therapies satisfy the mental and emotional requirements of elderly persons, therefore stressing downtime, awareness, and social interaction. However, the effectiveness of these therapies depends much on their appropriateness for the particular cultural, social, and financial situation of the community. The goal of this research is to investigate among elderly residents of assisted living facilities how concern levels correlate with many sociodemographic elements. To identify significant elements that may be utilised to forecast anxiety, the research examines items like education level, monthly income, and family ties. This will enable scholars to develop sensible, evidence-based therapies. The findings could enable us to create thorough mental health strategies tailored to the particular requirements of elderly persons living in facilities for care.

Literature Review

These days, both younger and older residents of institutions like old age homes experience a great degree of worry. For elderly persons' physical and psychological well-being, anxiety may be rather detrimental; it is also often linked to other social and demographic elements. As you age and relocate to an old age home or other location where others their age dwell, stress, uncertainty, and loneliness may worsen. Past research has addressed existence of anxiety, its causes, and therapies for elderly persons residing in institutions. Those studies are included in this review. Though rates vary depending on location and history, anxiety disorders are among the most frequent mental health problems in elderly persons worldwide. Living in long-term care facilities, persons over 65 typically worry; this anxiety is often accompanied by depression and other mental diseases [1]. Of the elderly, ten to twenty percent exhibit symptoms of anxiety. The percentage is greater in confined environments [2] due to reasons like being unwell, alone, and lacking much freedom. Researchers have shown that a person's level of concern may vary depending on their residence and personality. Older adults living in nursing homes might be more concerned than those living in other residences [4]. This outcome makes it abundantly evident that we

should investigate how various departments of companies affect senior citizens's mental health.

Older people's level of anxiety might vary greatly depending on their age, gender, degree of education, marital status, social circle, and so on. Older persons worry more when they lack sufficient funds or simple access to healthcare [3]. Furthermore found to be beneficial is degree of education; less concern is connected to greater academic performance [4]. Additionally lessening your stress is marriage and family support. Those who live alone after divorce or are elderly and worry more as they lack someone to speak to [1]. Regular visits from friends and relatives will assist because they will enable you to feel less worried and lonely [2]. Old age homes vary in that they could either aggravate or ease stress. People's mental health is much influenced by their degree of care, quantity of social events, and degree of independence they possess. Facilities providing therapy and planning activities claim that their residents are less anxious [3]. Worry may be exacerbated by the excessive population, lack of privacy, and poor quality of hiring practices. Furthermore influencing a person's stay in an aged home is their degree of stress. Shorter stays are frequently associated with greater stress as it takes time to adjust to a new location; longer stays may lead you to feel psychologically trapped and alone more. [2]

Many different approaches have been tested to determine if they could assist persons experiencing anxiety. Yoga Nidra's guided meditation and awareness-raising exercises are excellent means of relaxation; it has also been shown to be very beneficial for elderly individuals. Anxiety test scores were compared both before and during a 15-day Yoga-Nidra program. After the intervention, scores were much lower. Those who participated also claimed greater mental health and decreased stress [5]. Many elderly persons without medicines have also benefited from cognitive-behavioral therapy (CBT) and music therapy. For instance, music therapy helps individuals relax and communicate about their emotions [4]. Conversely, cognitive behavioural therapy teaches individuals how to manage issues and repairs bad patterns of thinking. These techniques would be very beneficial to elderly persons who may be reluctant to employ pharmacological treatments because to the hazards or problems involved with consuming too many medicines at once. Dealing with stress also heavily relies on getting individuals engaged in their communities via family initiatives and community activities. People of all ages are advised that volunteering and family time will enable them to feel like they belong, therefore reducing their anxiety [1].

Thanks to fresh research, we now know more about what generates anxiety and how to cure it; however, there remain significant gaps. Many studies only focus on certain sociodemographic elements and fail to investigate how they interact. Furthermore, little research has been done on therapies tailored to the requirements of various groups of elderly persons living in various environments and cultures. One instance is that family support and yoga-Nidra may assist individuals with anxiety more in India; these techniques have not been investigated in many research. Cross-sectional designs, which ignore how stress varies over time, are used more frequently than not. To see how people's degrees of anxiety evolve as social and demographic elements do, one must follow them over time. The research largely explores how in old age homes fear, social elements, and sociodemographic elements interact in complex ways. Research shows that people's level of concern is highly influenced by training, family income, and social contacts. This amply illustrates the value of treatment. Yoga-Nidra and social activities free from narcotics might help older individuals feel less anxious. From now on, we should use continuous methods to investigate how anxiety evolves with time and how well medications act with time. Research unique to each nation is also necessary to identify solutions to assist various groups of elderly people. Older persons living in institutions should have mental health programs created especially to fit their need. This will enable them to have decent quality of life and be healthy.

Table 1. Analysis on anxiety among elderly individuals in old age homes

Aspect	Key Findings	Relevant Factors	Interventions	Gaps Identified
Prevalence of Anxiety	Anxiety affects 10-20% of elderly in institutional settings.	Institutional care, isolation, limited autonomy, declining health.	N/A	Limited focus on longitudinal trends of anxiety.
Sociodemographic Variables	Anxiety is influenced by education, family income, marital status, and family contact.	- Education: Higher levels reduce anxiety. - Income: Financial stability lowers stress.	Family engagement, economic support.	Lack of research on interplay between multiple sociodemographic variables.
Institutional Factors	Quality of care, duration of stay, and social interaction impact anxiety.	- Shorter stays increase anxiety due to adjustment difficulties. - Overcrowding exacerbates stress.	Structured activities, personalized care programs.	Minimal exploration of institutional designs promoting mental health.
Non-Pharmacological Interventions	Yoga-Nidra and cognitive-behavioral therapy (CBT) reduce anxiety significantly.	- Relaxation techniques (Yoga-Nidra). - Coping strategies (CBT).	Music therapy, Yoga-Nidra sessions, CBT programs.	Limited research on culturally tailored interventions, especially in diverse populations.
Role of Family Support	Frequent contact with family reduces feelings of loneliness and anxiety.	- Contact frequency: Daily or weekly contact helps mitigate anxiety.	Family involvement initiatives, community-based programs.	Lack of studies on interventions that enhance family involvement in institutional care settings.
Future Directions	Emphasis on targeted interventions based on specific sociodemographic and institutional factors.	- Personalized care approaches.	Longitudinal studies, culturally specific interventions.	Need for a holistic approach combining sociodemographic, institutional, and intervention strategies.

Materials and Methods

Study Design: This cross-sectional study was designed to investigate the relationship between pre-test anxiety scores and selected sociodemographic variables among elderly residents in old age homes.

The study was conducted on 50 participants residing in two old age homes: Shivasambhu Vardhashram Seva Mandal Trust, located in Nerle, Tal-Walwa, Dist-Sangali, and Matoshri Vardhashram, located on the Mahagaon Satara Koregaon road, Tal &Dist-Satara. The dependent variable in this study was anxiety, while the independent variable was Yoga-Nidra. The old age homes were selected using a cluster sampling technique. Participants were chosen based on inclusive and exclusive criteria to ensure suitability for the study. Data collection at the Nerle old age home took place in February 2023, and at the Satara old age home, it occurred from June to July 2023.

Anxiety levels were measured using the DASS-21 scale (Depression, Anxiety, and Stress Scale). The intervention, Yoga-Nidra, was administered daily between 9 AM and 11 AM. Each Yoga-Nidra session lasted for 20 minutes and was conducted consecutively for 15 days.

Description of the tool:

It has two sections

Section A: Sociodemographic Data

Demographic variables made such as Age, Gender, Marital status, Education, Religion, Residential area, Type of family, Monthly income of family, Occupation before admit to old age home, Period of staying in old age home, Contact with family members, Pensioner, Type of admission, financial dependency.

Section B: DASS-21 scale (Depression, Anxiety, and Stress.)

Inclusive Criteria:

Elderly people who are willing to undergo the Yoga Nidra program. Elderly people have stress, anxiety, and depression in the pre-test.

Exclusive Criteria:

Elderly who are ill. Elderly with hearing impairment. Elderly who taking the medicine containing sedation. Psychiatric disorder patient.

Ethical Consideration:

Permission taken from the Ethical committee of KIMSDU, Dean/Principle of KINS. Manager of Shivasambhu Vardhashram Seva Mandal, trust, Nerle, Tal- walva Dist.- Sangali. and Manager of Matoshri Vardhashram, mahagaon satara koregaon road, Tal & Dist.-Satara.

Informed consent:

Before the data collection consent was taken from all the participants

Data collection procedure:

Data collection was conducted at two old age homes: Shivasambhu Vardhashram Seva Mandal, Nerle, Tal-Walwa, Dist-Sangali, and Matoshri Vardhashram, Mahagaon Satara Koregaon Road, Tal &Dist-Satara.

1. **Shivasambhu Vardhashram Seva Mandal, Nerle**:

   o **Time Frame**: Data collection occurred from 5 February 2023 to 22 February 2023.

   o **Pre-Test**: Conducted on 5 February 2023 using the DASS-21 scale to measure baseline anxiety levels.

   o **Demographic Data**: Collected through a structured interview schedule during the initial assessment.

   o **Ethical Considerations**: Informed written consent was obtained from all participants. Ethical aspects were adhered to throughout the study.

2. **Matoshri Vardhashram, Mahagaon Satara Koregaon Road, Tal & Dist-Satara**:

   o **Time Frame**: Data collection occurred from 29 June 2023 to 16 July 2023.

   o **Pre-Test**: Conducted on 29 June 2023 using the DASS-21 scale to measure baseline anxiety levels.

Data Analysis:

1. **Descriptive Statistics**: Basic descriptive statistics were computed for sociodemographic variables and anxiety scores.

2. **Inferential Statistics**:

   Regression Analysis: Multiple linear regression analysis was performed to assess the impact of sociodemographic variables on pre-test anxiety scores, adjusting for potential confounders.

Results

Table 2: Association of pretest score of Anxiety with selected sociodemographic variables.

Sr.No	Socio-Demographic Variable	Normal	Mild	Moderate	Severe	Extremely Severe	Chi.Sq	PValue	Result
		(0-7)	(8-9)	(10-14)	(15--19)	(20+)			
1	Age								
	60-65	0	1	11	5	0	8.277	0.2185	Not-significant
	65-70	0	1	13	1	0			
	71-75	0	0	13	2	0			
	Above 75	0	0	1	2	0			
2	Gender								
	A) Male	0	1	11	4	0	0.7546	0.6857	Not-significant
	B)Female	0	1	27	6	0			
3	MaritalStatus								
	Married	0	1	13	7	0	12.196	0.1427	Not-significant
	Unmarried	0	0	1	1	0			
	Divorced	0	0	2	2	0			
	Widow	0	1	15	0	0			
	Widower	0	0	7	0	0			
4	Education								
	Professional	0	0	0	0	0	20.842	0.0076	**Significant**
	b)Graduateor postgraduate	0	0	1	0	0			
	c) Intermediate orpost-highschool diploma	0	0	0	0	0			
	d)Highschool certificate	0	0	1	1	0			
	e)Middleschool certificate	0	2	2	1	0			
	f)Primaryschool certificate	0	0	13	2	0			
	g)Illiterate	0	0	21	6	0			
5	Residential Area								
	1.Rural	0	1	22	6	0	0.691	0.966	Not-

							X2	p-value	Significance
	2 Urban	0	1	16	4	0	4	0	significant
6	**Monthly Income Of Family**								
	a) 9308-27882	0	2	7	0	0	11.311	0.0035	**Significant**
	b) ≤9307	0	0	31	10	0			
7	**Occupation Before Admit To Old Age Home**						7.8224	0.6455	Not-significant
	1. Profession	0	0	2	0	0			
	2. Clerical shop – owner /farm	0	0	2	2	0			
	3. Skilled worker	0	0	2	0	0			
	4.Semiskilled	0	0	2	2	0			
	5. Unskilled	0	1	6	1	0			
	6. Unemployed	0	1	24	5	0			
8	**Period Of Staying In Old Age Homes**								
	A)0-2 Years	0	2	30	8	0	0.5263	0.7686	Not-significant
	B)2- 5 Years	0	0	8	2	0			
9	**Contact With Family Member**								
	a)Daily	0	1	1	0	0	16.773	0.0102	**Significant**
	b) Once in week	0	1	28	4	0			
	c)Monthly	0	0	4	3	0			
	d)Not at all	0	0	5	3	0			
10	**TypeOfAdmission**								
	a)Voluntary	0	0	8	3	0	0.9569	0.6197	Not-significant
	b)Involuntary	0	2	30	7	0			

Data presented in table 4 revealed that a significant association found between anxiety with demographic variables like education (X2 =20.842) & (p-value-0.0076), monthly income of the family (X2 =11.311) & (p-value-0.0035), and contact with a family member (X2 =16.773) & (p-value-0.0102).
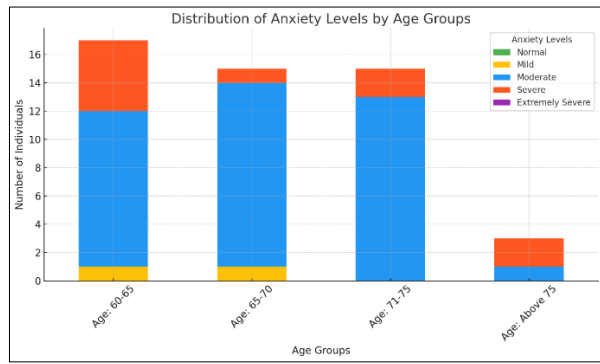
Figure 1: Anxiety levels categorized by age groups among elderly individuals in old age homes.

The Figure 1 illustrates that moderate anxiety is most common in all age groups, particularly among those aged 65-70. Severe anxiety is more frequent in the 60-65 and 71-75 age groups, indicating age-specific trends in anxiety levels.
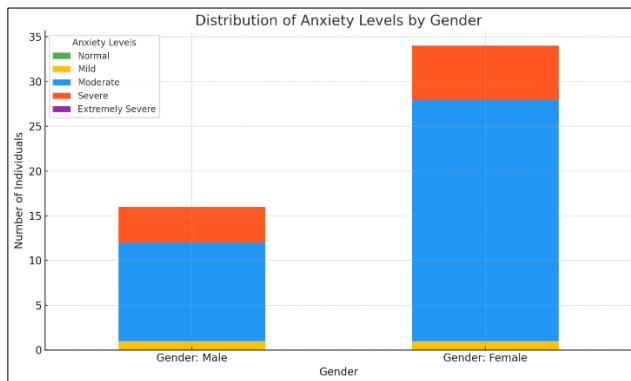

Figure 2: Anxiety distribution between male and female elderly residents.

Female residents show higher instances of moderate and severe anxiety compared to males. This disparity may be influenced by gender-specific factors such as social roles and support networks
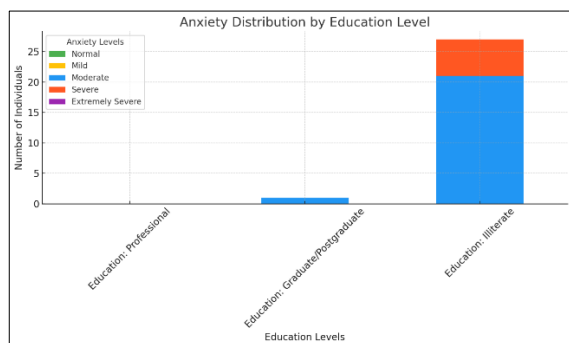

Figure 3: Relationship between education levels and anxiety severity among elderly individuals.

Illiterate individuals have significantly higher instances of moderate and severe anxiety compared to those with higher education levels. This trend highlights the protective role of education in mental health.
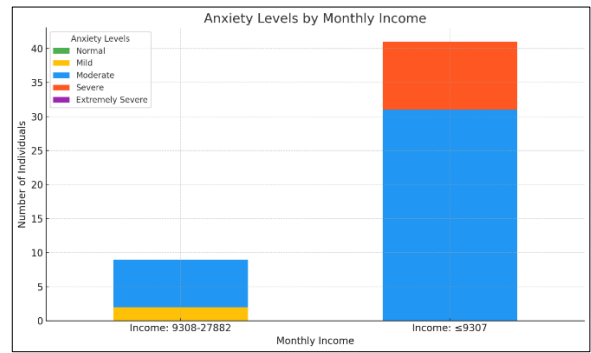

Figure 4: Anxiety levels categorized by monthly family income.

Individuals with lower income (≤ 9307) exhibit higher moderate and severe anxiety levels, emphasizing the impact of financial stability on mental health.
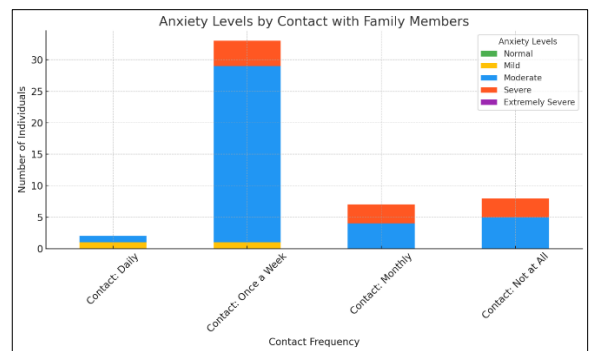

Figure 5: Frequency of family contact and its relationship with anxiety levels.

Regular contact with family (daily or weekly) is associated with lower anxiety levels. Conversely, limited or no contact correlates with higher moderate and severe anxiety levels, underscoring the importance of family support.

Discussion

The current study looks into the link between worry levels and certain sociodemographic factors among seniors living in old age homes. The results show that there are important links between worry and things like schooling, monthly income, and how often you talk to your family. Other factors, like age, gender, marriage status, and where you live, did not show any clear connections. These results, like those of other studies, show that worry in older people has many aspects. It became clear that education is a big factor in anxiety levels; people who aren't schooled have the most mild and serious anxiety. This finding backs up earlier study that showed schooling helps ways of dealing, the ability to solve problems, and the access of knowledge, making it a stronger mental health protection factor. In an old age home, where not knowing the place and being dependent on others can make worry worse, education can help people get help and deal with stress in the right way.

One more thing that was clearly linked to worry levels was monthly income. Older people whose income was lower Age and gender didn't seem to have much of an effect on worry levels, which was not what was expected. Even though women had a bit more mild to serious worry than men, the difference was not statistically significant. Some studies say that women are more likely to worry because of biological, psychological, and social factors. Also, the fact that there isn't a strong link between age and worry could be because everyone in the hospital has pretty much the same experiences, which could make the mental health of the people who live there the same. We can't forget about the purpose of the old age home setting. Sociodemographic factors are important, but worry levels are also affected by things like the quality of care, the number of events available, and the chances of making social contacts. People who live in homes with set rules and helpful care are likely to be less nervous. The study results show that institutions should have policies that make mental health care, social contact, and keeping in touch with one's neighbourhood as important as possible. These results show how important it is to make sure that personalised treatments focus on family involvement, financial stability, and education. Seniors might feel a lot less anxious if they could take part in programs that teach them how to better manage their money, spend it, and deal with their mental health. They may also be able to improve their mental health with non-drug therapies like yoga-Nidra, cognitive-behavioral therapy (CBT), and social contact programs.

The study gives us important new ideas, but the results can't be used in other situations because the sample size is so small. In the future, researchers should look at long-term changes in worry levels with a bigger and more diverse group. Culturally tailored treatments that meet the specific needs of older people living in institutions are another area that needs more study. In the end, the study shows how complexly sociodemographic, societal, and interpersonal factors combine to cause worry in older people. Getting focused and all-around treatments for these things is necessary to improve their mental health and quality of life.

Conclusion

This study shows that sociodemographic factors like education level, monthly income, and family contact have a big effect on the level of worry among seniors living in old age homes. Talking to family members often helped lower high levels of anxiety, but not being able to read or write and having unstable finances were clear signs of moderate to severe anxiety. Age, gender, and marital status, on the other hand, did not show any significant correlations, which suggests that events that cause worry happen consistently in institutional settings. The results show how important it is to have personalised treatments that take into account both general and personal factors. Getting seniors less anxious rests on programs that make it easier for them to go to school, get money, and stay involved with their families. Non-drug methods for improving mental health are also included, such as cognitive behavioural therapy and Yoga-Nidra. The study gives us some important new ideas, but because it used a cross-sectional method and had a small sample size, the results can't be used in other situations. In the future, researchers will need to use continuous methods and bigger, more diverse groups to get a better sense of how worry changes over time. Mental health plans would also work better if researchers looked into how to treat seniors in institutions in a way that is sensitive to their culture. So, improving the mental health and quality of life of older people in nursing homes means addressing all the things that make them worry in a focused and all-encompassing way. Treatment for mental illness and social contact must be given top consideration in institutions so that this sensitive group can be in a safe place.

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