LIVING ARRANGEMENTS, HOUSING AND SUBJECTIVE WELL - BEING OF THE ELDERLY

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Abstract

Population ageing is an inevitable outcome of the demographic transition experienced by countries all across the world. The proportion of the world's population over the next 60 years is estimated to nearly double, from 12% to 22 % between 2015 and 2050 (WHO, 2015). Declining fertility and increasing longevity have led to an increasing proportion of elderly persons (60 years and above) concomitant with the demographic transition process traversed by most of the now-developed countries. India is home to around 104 million elderly persons comprising 8.6 percent of the total population (Census 2011) and their number is expected to increase to about 300 million, constituting 20% of the total population by 2050 (UN, 2013). Considering the significance of the increasing number of the elderly in future, it is necessary to have a comprehensive understanding of their particular needs and issues.

This calls for various policies and programs directed towards the ageing population to ensure better living standards and quality of life (QOL). The paper is based on a study conducted in Durgapur, West Bengal, and focuses on understanding the well-being of the elderly population in relation to their living arrangements in urban areas. The study has taken a proportionate sample from urban housing and urban slums and offers a holistic overview of how the living arrangements of the elderly, amongst other factors, affect their well-being.

Key words: Urban elderly, Living arrangements, Subjective well-being, Perceived comfort from housing facilities, Health status, General Health Quotient

Introduction

Traditionally, the family has been the primary source of support for the elderly in India. However, owing to rapid industrialization and urbanization, their living arrangements have increasingly become a major issue in view of the changing family composition. For elders living with their families, especially older women, there is a great level of economic dependency on their children. The expenses incurred in the care of the elderly in such cases, become an additional burden on the children. Moreover, with the rapid decline in fertility, there is a substantial reduction in the number of children around to take care of the elderly (Sathyanarayana *et al*., 2014). The needs and problems of the elderly vary significantly according to age, socio-economic status, health, standard of living and such background characteristics (Siva Raju, 2002a). In view of this, it is fundamental to focus on the living arrangements and support that the elderly require for maintaining a decent quality of life. As there is a strong preference expressed by the elderly to live with their children, it is more important than ever to have an in-depth understanding of the role of the family in influencing their living arrangements. It is also interesting to note the implications of their living arrangements, housing, and assorted factors in the overall quality of life of the elderly.

Living Arrangements and Subjective Well-being of the Elderly

It has been a tradition in India for elderly parents to live together with their married sons, daughters-in-law and grandchildren. However, fertility transition, combined with the increasing urbanization and migration of the younger generation to urban areas for better employment opportunities, is expected to result in the break-up of joint families. Traditional values have also changed or are changing rapidly whereby individualism, the mobility of the younger generation, changes in family structure and composition, consumerism, and the emancipation of women have resulted in a 'crisis in caring' for the elderly (Prakash, 2004). With the demographic transition underway, there are only a few children who are supposed to look after the elderly. They are now more educated, mobile, aspire for a higher standard of living and, as such, changes in their individual behavior and attitude

are observed (Sathyanarayana et al., 2014). Further, it is specifically observed that the urban elderly are more likely to face the consequences of this transition as the infrastructure often cannot meet their needs (Siva Raju, 2014).

Provision for adequate, comfortable, and economic housing is important to our ever-increasing ageing population for their general and subjective well-being. Traditionally, elderly people in India have lived within a multigenerational family, an arrangement that catered to their economic, physical and emotional support to a great extent. The family structure is changing due to a number of reasons, such as the:

- migration of young children to different cities for livelihood, work and other reasons,
- reduction in the number of children a couple has, alongside higher life expectancy,
- greater involvement of young women, who have been the chief caretakers of the elderly in the past, in economic activities outside the home,
- physical separation of parents and adult children as a result of urbanization and age,
- selective rural to urban area migration
- spread of Western culture and lifestyle, and
- a growing individualism.

The living arrangements of the elderly are thus slowly undergoing a massive change. Rajan and Kumar (2003) assessed the pattern of living arrangements among the Indian elderly and found that although family care for the elderly is still strong in India, their economic security emerges as a major issue in the absence of co-residence with children. However, co-residence did not always indicate a flow of support from the younger to the older generation; it also implied childcare or help in household chores by the elderly (Chan, 1997; Irudaya Rajan et al., 1999). Often adult children's negative treatment of parents, as well as negative events that the children themselves have experienced, have a detrimental effect on the mental health of elderly parents over time

(Milkie, 2008). Also, older persons have shown that they can, increasingly, live independently (alone or with their spouse only) and, in most countries, support themselves financially with their own earnings, income from their assets, and through public transfers or social security schemes.

According to the 60th round of the NSS (2004), about three-fifths (65.53%) of older persons are economically dependent - partially or fully - on others. The dependency is observed to a higher degree in rural areas, especially amongst females. However, in most countries with pertinent data, older persons make net financial contributions to younger family members until rather advanced ages. The findings from a study in Korea suggest that the elderly, as well as the younger generations, put more value on two-way intergenerational relations based on mutual care and assistance, rather than simply following the traditional norm of *filial piety* (Kim and Kim, 2003). It was seen that the elderly who only received, or those who only gave, or those who neither received nor gave support in terms of exchanges characterizing their relationships with their children, were far less satisfied than those who both gave and received.

Globally, 40% of older persons aged 60 years or over live independently, that is to say, alone or with their spouse only (UN, 2013). Independent living is far more common in the developed countries, where about three-quarters of older persons live independently, compared with only a quarter in the developing countries and one-eighth in the least-developed countries. As countries develop and their populations continue to age, living alone or with a spouse only will likely become much more common among older people in the future. The US city of Philadelphia has designed houses and redesigned the city to facilitate the construction of specially-designed housing for older persons, as well as considered a comprehensive program of health, welfare, recreational and educational services to meet the varying needs of older people who lived independently (Linden & Rosenbaum, 1959). While cities like Philadelphia came up with recommendations for better living arrangements for older persons way back in 1958, most cities around

the world have not even prioritized that as an idea. India very recently came up with the concept of "Smart Cities" which will be made both disabled and elderly friendly so as to facilitate the mobility of the ageing population. This government initiative might improve the QoL of elderly people living in cities, as accessibility to public areas and public transport increases.

A recent study (UNFPA, TISS, ISEC & IEG, 2011) indicated that about 80% of the elderly co-reside with their spouse and children and, in certain cases, with relatives. In addition, about a quarter of the elderly receive money transfers from their non-resident children. A majority of them prefer to live with their sons; while a small proportion prefers to live alone, or with their spouse. However, the findings of the study by Tannistha Samanta (2014) indicate that there is no clear benefit of co-residing in joint families as opposed to living alone, in terms of subjective well-being. It infers that living with a spouse only seems beneficial for the emotional well-being of older adults, as compared to those living with children. Therefore, in the absence of family support, it is crucial to have alternative forms of healthcare and support systems for the elderly, especially those belonging to an advanced age.

With old age, being prone to health-related vulnerabilities is a commonly observed phenomenon. Factors like deteriorating physiological conditions, decreased immunity, the slow pace of recovery from illness, and mental incapacity affect the health of the elderly. Increased life expectancy and the availability of better medical facilities have resulted in the elderly living longer, but in many cases requiring care to manage day-to-day activities (Ajay Bailey et al., 2014).

Mental health is significantly related to the overall health of the elderly. Over 20% of the 60-plus population suffer from a mental or neurological disorder, and 6.6 percent of all disability among the over-60s is attributed to neurological and mental disorders (WHO, 2016). Inadequate economic support, poor health, inadequate living spaces, loss of respect, unfinished familial tasks, lack of recreational facilities, and problems with how to spend time (Siva Raju, 2002) are major factors contributing to their worries and mental health issues. Martin

and Nandini (2003) stated that elderly females are more prone to mental health issues as a result of bereavement, sleep disturbances, disability, and pre-existing depression. Ageist attitudes towards old age, the degradation of their status in the community, problems of isolation, loneliness, and the generation gap are the prominent thrust areas resulting in socio-psychological frustration among them (Mohanty, 1989). A study by V Sethuramalingam (2013) in an urban slum of Tamil Nadu found that more than half of the elderly women had low levels of depression, coupled with anxiety, stress, and hopelessness.

Happiness in old age depends to a great extent upon a busy life, good health, the absence of a feeling of scarce funds, the comfort of having a spouse, and social contacts. Anxiety is reported to be at a higher level among the elderly in general. A majority of the elderly turn to religion to deal with their feelings of anxiety by reading or reciting religious verses and hymns.

In regard to healthcare services, studies have found that non-institutionalized older people were better adjusted than institutionalized and geriatric patients. The younger generation, as well as the elderly themselves, view institutionalization of the elderly unfavourably which is, partly, due to the deep rooted tradition in our society that it is the duty of the children and family to look after the elderly. Some of the factors that are found to influence the adjustment of the elderly were rigidity, flexibility, role availability and role involvement, nature and quality of husband-wife communication, marital satisfaction, nature and quality of attitude to retirement, attitude to future and death, and satisfactory physical and mental health (Ramamurti and Jamuna, 1993). The problems retirees had chiefly include a shortage of money, an inability to pass time, widowhood, feeling physically weak, a fear of death, tension, and keenly feeling neglected at all levels by society, family and friends. (Raghani and Singhi,1970). Mishra (1987) found that with an increased and adequate income, the level of adjustment of older persons also increased correspondingly, indicating a significant association between a sound financial position and successful adjustment in old age.

Most elderly are reported to bear a negative self-image and poor self-concept (Ramamurti and Jamuna, 1984). Changes in looks and likeability, and feelings of alienation, alongside a near constant exposure to ageist attitudes, greatly contribute to the negative self-image the elderly have of themselves. It was noticed that after the age of 50, people gradually manifest more problems and display poorer adjustment and life satisfaction till the age of retirement. However, post-retirement they slowly and gradually begin making adjustments and their life satisfaction shows a higher index until the age of 70, when the negative effects of ageing again become more pronounced (Ramamurti, 1978). The significant determinants of successful ageing, according to certain studies (Ramamurti and Jamuna, 1992, Niharika, 2004, Siva Raju, 2006), include self-acceptance of ageing changes, self-perception of health, perceived functional ability, perception of social support, inter-generational amity, belief in karma and the afterlife, flexibility, a range of interests, activity levels, marital satisfaction, religiosity, certain value orientations and economic well-being.

It is obvious that people become more susceptible to chronic diseases, physical disabilities and mental incapacity in old age. As age advances, consequent to deteriorating physiological conditions, the body becomes more prone to illnesses that are multiple and chronic in nature. In the later years of life, arthritis, rheumatism, heart problems and high blood pressure are the most prevalent chronic diseases affecting people. Certain health problems of the elderly can be attributed to social values as well. The idea that old age is an epoch of ailments and physical infirmities is deeply rooted in the Indian psyche, and suffering and physical troubles that are entirely curable are accepted as natural and inevitable by the elderly. In regard to the health problems of the elderly from different socio-economic backgrounds, it was found (Siva Raju, 2002) that while the poor elderly largely attribute their health issues to easily-identifiable symptoms like chest pain, shortness of breath, prolonged cough, breathlessness/asthma, eyesight and dental problems, difficulty in movement, and tiredness; the upper class elderly, in view of their greater knowledge of illnesses, mentioned

blood pressure, heart attacks, and diabetes, all of which are largely diagnosed through clinical examination. Gore (1990), analyzing the social factors affecting the health of the elderly, concluded, "While there are no data showing a direct relationship between income level and health of elderly individuals, one would assume that the nutritional and clinical care needs of the elderly are better met with adequate income than without it. If so, the poor countries and the poorer segments of the elderly population within each country would experience problems of health and well-being".

Some clinical studies have found that a multiplicity of diseases was normal among the elderly and that a majority of the old were often ill with chronic bronchitis, anemia, hypertension, digestive troubles, rheumatism, scabies and fever. Some cases of disability among the elderly, as reported by a few medical studies, were difficulty in walking and standing, partial or complete blindness, partial deafness, and difficulty in moving some joints, indigestion and mild breathlessness. The study of the Medical Research Centre of the Bombay Hospital Trust (Pathak, 1975), based on a post-treatment analysis of the records of 1,678 patients admitted there between 1970 and 1971 revealed that a good number of patients had gone through more than one major illness in the past. The author expected that there was a higher incidence of disease in the subjects than mentioned in the records, since the patients mentioned only such symptoms as they considered serious. Darshan and others (1987) carried out a study of the elderly in various slums scattered in and around the city of Hissar. Among the 85 subjects interviewed by them, 67.1% were ill at the time of the survey. Of these, 73.7% suffered from chronic illnesses. A medico-social study of the urban elderly in Mumbai (Siva Raju, 2002) revealed that the influence of certain factors such as educational status, economic status, age, marital status, perception of living, addictions, degree of idleness, anxieties and worries, type of health centre visited, and whether or not under medication, - on both the perceived and actual health status of the elderly is found to be significant, and varies considerably across different classes and sexes of the elderly.

Some of the earlier research (Purohit and Sharma, 1972; Pathak, 1975;

Mishra, 1987; Sati, 1988) had reported that there was a considerable difference in the perception of old people of their real-time health status and the reality. It was presumed that such differences narrow down as the socio-economic status of the elderly increases, because with higher education and income they would have greater access to health/medical information and services. There is a general perception among the elderly that they are prone to illnesses chiefly because of their advanced age, and that it is natural to suffer from such health problems as a consequence of age. However, in reality, most of their illnesses are minor in nature and curable at the initial stage, but most neglect the condition/s and postpone seeking medical aid. There have been cases where the neglect of timely medication has culminated in aggravated health problems, and, occasionally, led to death. Although certain sections of the retired do enjoy pensioner benefits, a large number of the elderly in India who do not belong to the 'employed' category do not enjoy social security benefits. During their period of service, these 'employed' personnel (or government servants) enjoy certain medical facilities such as free treatment and supply of medicines from government hospitals/dispensaries. Unluckily, these facilities are unavailable after retirement when they really need such subsides. Thus, government servants face a hard time after retirement if they are victims of a serious illness.

There appears to be a significant difference in the health status of the elderly living in rural areas when compared to those in urban areas. Elderly people in rural areas appear to be much healthier than those in urban areas. Interestingly the prevalence of chronic disease among females is higher than that among males in urban areas, while the reverse is the case in rural areas (CSO, 2000). Further, the prevalence of miscellaneous types of physical disabilities was found to be quite high among the elderly, all of which were also found to be more prevalent in rural rather than in urban areas.

In a study on the urban elderly, Siva Raju (2002) observed that the effect of age on the actual health status is curvilinear, with problems like high blood pressure found to be more prominent in the lower income group. In connection with the same, Alam and Karan (2011)

found that the number of elderly persons perceiving their health as poor has increased, and especially in urban areas, the burden of ailments of the elderly is also more than double. This underlines the importance of studying the urban elderly with a special focus on their health statuses. In view of the wide variations observed in the status of the elderly in studies, it is vital to study their living arrangements, housing and well-being in an urban context.

It is clear from the review above of earlier studies on the health of the elderly that their health and well-being are affected by several interwoven aspects of their social and physical environment, ranging from lifestyle and family structure, and social and economic support systems to the organisation and provision of healthcare. The pattern of various inputs for developing appropriate social policies for the welfare of the elderly may have to be suitably modified in view of the diversity of the factors involved and their differential influence on the living conditions of the elderly.

Methodology

The present paper is based on a study exploring the mental well-being of the elderly, which was conducted by the first author of this article in an urban area of Durgapur in the district of Bardhhaman, West Bengal. Durgapur represents a typical urban population with differential living conditions amongst its elderly. Out of 43 wards, 2 were selected, based on the heterogeneity of the living conditions and the proportion of slums in them.

The sample size was fixed at 250 respondents. 120 respondents were sampled from the elderly living in independent houses (pucca houses), 70 from those in the slums (notified slum areas with kachcha and semi-pucca houses), and 60 from those in group housing (clusters of apartments in an area).

The area of residence and type of dwelling were used as proxy indicators of the socio-economic status of the respondents. An equal number of male and female respondents were interviewed so as to capture the gender dimensions of ageing, thus making it a classifying variable.

The collected data was analyzed using the SPSS (statistical package for social sciences) software (version 20). With the GHQ (General Health Questionnaire 12) score as a dependent variable, and household size, type of housing and perceived comfort with living arrangements as independent variables, the analysis was carried out and the same is presented in this chapter. Chi-square tests and multiple regression were done for the correlation and prediction values of the score. 'p', representing the statistical significance, was designated as $p<.01$ (*) at a 90 % confidence interval, $p<.005$ (**) at a 95 % confidence interval, and $p<0.001$ (***) at a 99% confidence interval.

Results

In India, in line with tradition, it was presumed that children especially sons would support their old parents. However, changes in family structure, migration and shifting social contexts have significantly impacted relationships and patterns of intergenerational provision of care and support, and a reciprocal of the same. Adult children provided their aged parents care and financial support in exchange for parental support in the earlier stages of their young adult lives, when they married and began to set up their own individual families. However, changing family structures combined with population ageing have presented formidable challenges to the provision of care across generations. The migration of adult children as a result of better education and job opportunities was evident in the living arrangements of the elderly.

Household Size

The role of household size is significant, especially in developing countries, as it negatively impacts socio-economic status owing to the high consumption of resources. However, a big family size also positively impacts the support and care that can be offered to the elderly.

The average size of the households studied in the sample was about 4 members in each with 24.8% of the respondents living in a household of that size. Around 10.8% of all respondents stayed only with their spouse, who were often elderly themselves or in their late fifties . The

household size was categorized into two categories of 2-5 members in one category and 6 and more in the other, for the purpose of analysis later.

Table 1: Distribution of the Elderly According to Household Size

Household Size	Frequency	Percent
2	27	10.8
3	51	20.4
4	62	24.8
5	49	19.6
6	29	11.6
7	18	7.2

Nearly one-fourth (24.8%) of the respondents have four- member families, followed by one- fifths with three member (20.4%) and five member (19.6%) families. About a quarter (24.4%) of the respondents have six or more members in their families.

60% of the respondents stayed with their sons (and their families, if present) and 20.8% stayed with their daughters (and their families, if present), while 8.4 percent stayed with their extended families. 43.2% of the respondents identified themselves as the head of the household, while the remaining identified sons (26%), sons-in-law (14.8%), older brothers (4.8%), mothers (7.2%) or fathers (4%) as the head of the household.

The findings reflect that more than half of the elderly were part of four-member (or smaller) families, and a majority resided with their sons and daughters.

Type of Housing

The type of dwelling indicates the economic conditions of the elderly and access to basic facilities. As the mobility of the elderly is comparatively limited on account of health and other issues, it is essential to be aware of their housing arrangements as they spend considerable time at home.

A scrutiny into the type of dwelling was controlled by taking samples

from 3 types of dwellings. 28% of the respondents lived in kachcha / semi-pucca houses in notified slums, 48% in pucca houses located independently in a locality and 24% in a flat in a building or a complex, known as Group Housing (Table 2).

Table 2: Distribution of the Elderly According to Type of Housing

Type of Housing	Frequency	Percent
Kachcha/Semi-pucca	70	28
Pucca	120	48
Group housing/Flats	60	24

Nearly half (48%) of the respondents resided in pucca houses, followed by 28% in kachcha/semi pucca houses, and 24% in group housing/flats.

More than one-tenth (14.4%) of them did not have an attached bathroom and had to use a common bathroom instead. However, all these houses without an attached bathroom were located in the slums. Thus, only 34 houses of the 70 surveyed in this study had an attached bathroom. 14.4% of all households used the public latrine located at an average distance of 5 minutes from their houses, while 13.6 % of the households from the slums had a pit latrine facility. The remaining 180 households located in non-slum localities or Group Housing complexes had septic tanks/flush toilets. The main source of drinking water was piped water supplied to the area through different distribution centers, centrally coordinated by the Damodar Valley Corporation or DVC.

Nearly one-third (32%) of the elderly had a separate room to themselves. All households had electricity supply, though the supply in the notified slum areas was often interrupted. An overwhelming majority of them also had electric fans. Around 26% of the households had a microwave, 30% an AC and 22% a room heater. Since Durgapur often experiences extreme climatic conditions in the form of harsh summers and chilly winters, these modern amenities are an integral part of the comfort of the elderly.

Overall, the results reflect that basic facilities and housing arrangements are available to make it convenient for the elderly to handle their daily routines.

Perception of Comfort from Living Arrangements

Comfortable living arrangements are crucial, as they influence the physical and subjective well-being of the elderly. The respondents were asked to rate their present living arrangements as comfortable, satisfactory or uncomfortable.

More than two-fifths (42.8%) felt comfortable with their living arrangements, while 27.2% (or 68 respondents) felt it was satisfactory. Around 30% said that they were uncomfortable with their present living arrangements.

The respondents were asked about their perception of comfort from their living arrangements. The perception of comfort was cross-tabulated with the kind of dwelling the respondents lived in, which was statistically significant with one's perceived level of comfort. Table below shows the results.

Table 3: Distribution of the Elderly According to the Perception of Comfort from Living Arrangements

Perception of Comfort from Living Arrangements	Frequency	Percent
Comfortable	107	42.8
Satisfactory	68	27.2
Uncomfortable	75	30
Total	250	100
$\chi^2 = 116$, df= 4, $p < .001$		

There is a statistically significant relation between the level of perceived comfort and the type of housing, with respondents living in the slums reporting the lowest comfort levels. While only 4.7 percent who expressed comfort with their living arrangements were from the slums, the majority (62.6%) lived in independent houses and flats.

Similarly, the proportion of the elderly who expressed discomfort was highest from slum-dwellers and lowest from flat-dwellers. The perceived comfort from living arrangements varied across the localities the respondents lived in.

The General Health Questionnaire (GHQ)

Developed in England as a self-administered screening instrument to identify psychological distress for use in general population surveys (Goldberg & Williams, 1988), the GHQ can identify four elements of distress: depression, anxiety, social impairment and hypochondria. The questionnaire was originally created as a 60-item instrument (Goldberg, 1972). Shortened versions (30, 28, 20 and 12 items) were developments from the original. The 12-item version of the GHQ is the most widely-used screening instrument for common mental disorders and is used as a screening tool to identify the severity of psychological distress experienced by older persons. Each item on the scale has four responses from "more so than usual" to "much less than usual." For the purpose of this study, the simple Likert scale of 0-1-2-3 was taken as the scoring method. The scores were summed up by adding all the items on the scale ranging from 0 to 36. Because of the various thresholds of the GHQ-12, the mean GHQ score for a population of respondents was suggested as a rough indicator for the best cut-off point (Goldberg, Oldehinkel & Ormel, 1998). The cut-off point 12 was used to determine the respondents' level of psychological well-being in this study as the same cut-off was used in the BKPAI study (UNFPA, 2011), as well as in other studies conducted in the Indian context.

A score greater than 12 indicated psychological distress, whereas less than 12 indicated psychological well-being. For the purpose of the statistical tests of this study, 'more than 12' or psychological distress was coded as '0' and 'less than 12' or psychological well-being was coded as '1'. 58.8% of the respondents scored above 12, reflective of considerable psychological distress among older persons living in Durgapur.

Table 4: GHQ Score of the Elderly

GHQ Score	More than 12	Less than 12
Frequency	147	103
Percent	58.8	41.2

Overall, nearly three-fifths (58.8%) of the respondents were mentally distressed as against two-fifths (41.2%) who were psychologically well.

GHQ Score and Household Size

A majority (77%) of the respondents living in big households suffered from mental distress, compared to 52.9% living with smaller family sizes. Respondents living in smaller households of 5 members or less had better mental health than those living in bigger household sizes. This may be due to the fact that a bigger household often does not entail a private bedroom or a comfortable living space for the elderly. However, such a conclusion needs further investigation. This might also be due to the fact that older persons in urban areas increasingly prefer to stay independently with their spouse.

Table 5: GHQ Score and Household Size

Household Size		GHQ		Total
		More than 12	Less than 12	
Less than 5 members	Frequency	100	89	189
	%	52.9	47.1	100.0
6 or more members	Frequency	47	14	61
	%	77.0	23.0	100.0
Total	Frequency	147	103	250
	%	58.8	41.2	100.0
$\chi^2 = 11.092$	df= 1 p = .001			

The World Population Ageing Report, 2013, states that increasingly, older generations prefer to stay only with their spouse, independently. This phenomenon, markedly more common in developed countries,

can also be the same in an urban area of a developing country. The results are statistically significant (Table 5).

GHQ Score and Type of Housing

More than four-fifths (81.4%) of the respondents in slums were mentally distressed, compared to 56.7% from other localities and 36.7% from flats.

Table 6: Percent and Frequency of GHQ Score Categories with the Type of Dwelling

Type of Housing		GHQ	
		More than 12	Less than 12
Kachcha/Semi-pucca house in a slum	Frequency	57	13
	%	81.4	18.6
Independent house in a locality	Frequency	68	52
	%	56.7	43.3
Flat in a society	Frequency	22	38
	%	36.7	63.3
Total	Frequency	147	103
	%	58.8	41.2
$\chi^2 = 27.154$ d.f=2 $p<.001$			

The living conditions of the respondents serve as a proxy indicator of their general socio-economic status and thus we infer that the burden of mental distress is more in lower SES groups as against others. The results are statistically significant (Table 6).

GHQ Score and Perceived Comfort from Living Arrangements

Almost all (94.7%) the respondents who had uncomfortable living arrangements suffered from mental distress, compared to 72.1% of those who had satisfactory living arrangements and only 25.2% of those who lived comfortably, a statistically significant relationship. Thus, perceived living comfort, better housing, and other facilities have a strong correlation with the well-being of older persons (Table 7).

Table 7: Percent and Frequency of GHQ Score Categories with the Perceived Comfort from Living Arrangements

Perceived Living Comfort		GHQ	
		More than 12	Less than 12
Comfortable	Frequency	27	80
	%	25.2	74.8
Satisfactory	Frequency	49	19
	%	72.1	27.9
Uncomfortable	Frequency	71	4
	%	94.7	5.3
Total	Frequency	147	103
	%	58.8	41.2
χ^2= 94.525 df= 2 p<.001			

Determinants of GHQ: Multivariate Results

The variables studied under the domain of living arrangements were the kind of dwelling the respondents lived in (also reflective of the locality/neighborhood lived in) and the perceived comfort level they had with their present living arrangements. The GHQ scores were regressed on the above variables along with household size. Table 8 shows the variables and dummy variables for the regression model.

Table 8: Variables and Dummy Variables for the GHQ Regression Model

Variable Of Interest	Reference Category	Dummy Variables
Housing	Kachcha/Semi-pucca house in a slum	• Independent pucca house • Flat in a society
Perceived comfort with living arrangements	Comfortable	• Satisfactory • Uncomfortable

Table 9: Multiple Logistic Regression Model for the GHQ Score as a Dependent Variable

Living Arrangements	Exp (B) Value For Overall Model
Independent house (Ref:House in a slum)	.225
Flat (Ref: House in a slum)	.573
Satisfactory conditions (Ref: Comfortable conditions)	12.995***
Uncomfortable(Ref: Comfortable conditions)	.007***

The perception of living arrangements as being uncomfortable affected the mental health of both men and women; however, the effect was more pronounced in women as compared to men. There was a significant relationship between overall satisfaction and comfortable living arrangements and the odds of having better mental health. The odds of mental distress, linked to having unsatisfactory living arrangements, were significant only in women respondents when the data was sex-disaggregated.

Conclusion

The results reflect that how an elderly person perceives his living arrangements has a huge impact on the status of his mental health. Living arrangements can be deemed uncomfortable for reasons such as lack of proper sanitation, electricity or water supply, or having to share a room and being deprived of the privilege of having a bedroom to oneself. The conditions might also be as varied as staying in a kuchcha/semi-pucca house or a pucca house. However, the way people perceive their living conditions on a daily basis has the most profound effect on their mental health, as demonstrated by the results, revealing that mental distress could be predicted by one's perception of one's living arrangements.

Thus, provision for better housing and adequate facilities for the ageing population should be a policy priority. This study has, methodologically, contributed to understanding the determinants of

the subjective well-being of the elderly using the General Health Quotient.

The study's findings clearly indicate the co-relation between living arrangements and housing on the perceived satisfaction and well-being of the elderly. The findings have far-reaching connotations in terms of legislation and policies for the elderly, such as the Maintenance and Welfare of Parents and Senior Citizens Act, 2007, the integrated housing scheme, and others. Hence, assessing such subjective well-being is suggested for a better understanding of the status of the elderly residing in different socio-economic and geographical aspects.

REFERENCES

Bailey, A., Hallad, J., and James, K. (2014). Health Status, Care Giving and Receiving among Elderly with Migrant Children, *BKPAI Working Paper* Series II No. 4, United Nations Population Fund (UNFPA), New Delhi

Alam, M. and Karan, A. (2011). Elderly Health in India: Diamention, Differentials and Determinants, *BKPAI Working Paper* No. 3, United Nations Population Fund (UNFPA), New Delhi

Arokiasamy, P., D. Bloom, J. Lee, K. Feeney, and M. Ozolins. (2012). Longitudinal Aging Study in India: Vision, Design, Implementation, and Preliminary Findings. in *Aging in Asia: Findings from New and Emerging Data Initiatives*., edited by James P. Smith. Washington, DC: The National Academies Press.

BKPAI. (2012). *Report on the Status of Elderly in Selected States of India*, 2011: United Nations Population Fund, New Delhi

Central Statistical Organisation. (2000). *Elderly in India: Profile and programmes*. Ministry of Statistics and Programme Implementation, New Delhi, Government of India

Chan, A. (1997). An Overview of the Living Arrangements and Social support Exchanges of Older Singaporeans, *Asia Pacific Population Journal*, Vol 12, No 4.

Darshan, S., Sharma, M.L. and Singh, S.P. (1987). *Health needs of*

senior citizens, in Ageing in India: Challenge for Society, edited by Sharma, M.L. and.Dak T.M. Ajanta, Delhi

Gore, M.S., (1990). Social Factors Affecting the Health of the Elderly, in *Improving the Health of Older People: A World View*. Edited by Kane, R.L., Evans, J.G. and Macfadyen. Oxford University Press, New York

Graf, C. (2013). The Lawton Instrumental Activities of Daily Living. *Best Practices in Nursing Care to Older Adults*, Hartford Institute for Geriatric Nursing, New York University

Irudaya, Rajan (1999): *Aging and Social Security in Kerala's Economy*. Edited by Prakash, B. A. Sage Publications, New Delhi.

Kim, I. K., & Kim, C. S. (2003). Patterns of Family Support and the Quality of Life of the Elderly. *Social Indicators Research*, 62(1-3), 437-454.

Linden, M. E., & Rosenbaum, G. S. (1959). Living Arrangements and Mental Disorders among the Aged: Workshop, 1958. *American Journal of Orthopsychiatry*, 29(4), 699-707.

Martin, L.G. (1989). Living Arrangements of the Elderly in Fiji, Korea, Malaysia, and the Philippines. *Demography*, 26(4).

Milkie, M. A., Bierman, A., &Schieman, S., (2008). How Adult Children Influence Older Parents' Mental Health: Integrating Stress-Process and Life-Course Perspectives. *Social Psychology Quarterly*, 71(1), 86105.

Mishra, S., (1987). *Social Adjustment in Old Age*. B. R. Publishing Co., Delhi

Mohanty, S.P., (1989). Demographic and socio-cultural aspects of ageing in India: some emerging issues, in *Elderly in India: Socio-demographic dimension*., edited by Pati, R.N. and Jena, B. Ashish, New Delhi

Gupta, Niharika, (2004). *Successful Ageing and its Determinants*. Ph.D. thesis, TISS, Mumbai

Panigrahi, A. (2009). Determinants of Living Arrangements of Elderly in Orissa: An Analysis. *ISEC Working Paper Series* (228).

Pathak, J.D., (1975). *Inquiry into Disorders of the Old*. Part I: Medical Research Centre, Bombay Hospital Trust, Bombay.

Prakash, O., &Kukreti, P. (2013). State of Geriatric Mental Health in India. *Current Translational Geriatrics and Experimental Gerontology Reports*, 2(1), 1-6.

Rajan, S.I. and S. Kumar. (2003). Living Arrangements among Indian Elderly: New Evidence from National Family Health Survey. *Economic and Political Weekly,* 38(1).

Ramamurti, P. V., (1978). *The Sixth Decade and After*. Tirupathi: S. V. University Press.

Ramamurti, P.V. and Jamuna, D. (1984). Psychological Research on the Elderly in India, *Journal of the Anthropological Society of India*, 19(3).

Ramamurti, P.V. and Jamuna, D. (1992). Markers of Successful Ageing among Indian Sample, Sandoz Project Report, Switzerland.

Ramamurti, P.V. and Jamuna, D. (1993). Psychological Dimensions of Ageing in India. *The Indian Journal of Social Science*. 6(4) New Delhi.

Ramamurti P.V. and Jamuna, D. (1993). Some Predictors of Satisfaction with Present Life in an Indian Sample. *Indian Journal of Gerontology*. 7 (3&4)

Sathyanarayana, K.M., Kumar, S. and James, K.S. (2012). Living Arrangements of Elderly in India: Policy and Programmatic Implications. *BKPAI Working Paper*, United Nations Population Fund, India 7.

Shelkey, M. and M. Wallace. (2012). Katz Index of Independence in Activities of Daily Living. Best Practices in Nursing Care to Older Adults Hartford Institute of Geriatric Nursing, New York University (2).

Siva Raju, S., (2002a). *Health Status of the Urban Elderly: medico-social study*, Delhi: B. R. Publishing Co.Siva Raju, S., (2013).

Situational Analysis of Older Women in *Older Women in India: The Context, Issues and Concerns.* Edited by Nayar, P.K. B., (pp.278-301), New Delhi: The Women Press.

Siva Raju, S. (2014). Population Ageing in India. in Girighar, G (Ed.), *Studies on Ageing in India: A Review* (pp.180-230), Delhi: Cambridge University Press .

TannisthaSamanta. (2014). Household Context, Social Capital and Well-being of Older Adults in India, *BKPAI Working Paper Series* II No. 2, United Nations Population Fund (UNFPA), New Delhi

United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Ageing*. ST/ESA/SER.A/348

V. Sethuramalingam. (2013). Mental Health and Quality of Life among Elderly Women in Slums, in *Ageing, Health and Development*., edited by Siva Raju, et al., Indian Association for Social Sciences and Health (IASSH), Delhi: B.R. Publishing Corporation

Visaria, P. (2001). Demographics of Ageing in India. *Economic and Political Weekly*, 36, 1967-1975.

World Health Organization. (2015). *World Report on Ageing and Health*. World Health Organization.