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Readers are invited to express their views about the content of the journal and other problems of senior citizens.Their views will be published in the Readers' Column. Senior citizens can send their problems to us through our web site: www.gerontologyindia.com Their identity will not be disclosed. We have well qualified counsellors on our panel. Take the services of our counselling centre - **RAHAT.**

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YOU ARE INVITED TO JOIN US

We are Working to Protect the Rights and Social Welfare of the Elderly

Indian Gerontological Association (Registration No 212/1968) is an independent grassroot non-profit organization based in Jaipur (Rajasthan). Our efforts aim at empowering and supporting the underprivileged elderly in rural and urban communities.

We strive to ensure social justice and welfare for people over 60, focusing on those elders who are the most disadvantaged such as elderly women. We protect the civil liberties of elderly citizens as a part of the struggle for individual rights and social progress in India. Currently, the elderly community comprises approximately 10 per cent of the total population of India. This number will increase to nearly 25 per cent within the next twenty years. Neglected and abandoned by society and sometimes by their own families, elders are increasingly subject to conditions of disease and poverty. They lack access to health care, and often face serious discrimination as well as physical and emotional abuse.

As a public interest group, we work for and with the elderly to protect their rights and access to a better quality of life. We seek to both empower and serve by working directly with rural communities. By facilitating the growth of citizen's groups, raising public awareness on ageing, promoting public action and participation, and advocating public policy changes, Indian Gerontological Association hopes to alter the current trends in *elder relations* for the better in the society.

Our Work Includes

- Community Centers for the Elderly that Offer Communal Support and Interaction
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- Public Hotline for the Elderly that offers Legal Referrals and Assistance
- Public Accessibility for the Elderly Advocating More Available Access to the Public Sphere
- Use of various Forms of Media to Raise Public Awareness on Elder Rights
- Counselling and Helping Elderly to Relieve Psychological Stress and Depression
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- Campaign Against Elder Abuse especially toward Elderly Women
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- Capacity Building of Civil Servants or organizations Working on Ageing
- Research & Publication

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Socio-cultural Determinants of Active Ageing: A Comparative Study of Two Locations

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ABSTRACT

Aged people are often taken as spent-force and unproductive, though they contribute in myriad ways to the family and social life. In the present study, socio-cultural determinants of active ageing were looked into. The study covers 200 elderly (age varying from 60 years and above) respondents of both the sexes (Male=100 and female=100) living in two contrasting neighbourhoods of Delhi (Dwarka N=100 and Kakrola Gaon N=100) having differential socio-economic and cultural contours. An interview schedule was used to collect information regarding their socio-economic and health status, daily activities and other relevant personal information from the respondents. Each respondent was interviewed individually. The findings of the present study suggest that, unlike the popular image of being 'non-productive, the elderly take up many roles and responsibilities in the family and neighbourhood, particularly those with higher educational and economic status. Age, health condition, educational level, economic status, and cultural norms, are some of the crucial factors which influence active ageing. Suggestive interventions to enhance active and productive ageing were brought forth in the light of the present study.

Key words: Active Ageing; Contributions of senior citizens; Creative pursuits; Elderly Person; Health of elderly.

The recognition and promotion of active ageing and the contributions of older persons are gaining worldwide attention. On the International Day of Older Persons, 1st October 2007, the Secretary-General Ban Ki-Moon of the United Nations states that

"Older persons now have many more opportunities to keep contributing to society beyond any set retirement age. Our views on what it means to be old are changing all the time. Where older persons were sometimes seen as a burden on society, they are now increasingly recognized as an asset that can and should be tapped".

All though society generally perceives the elderly as spent-force, incapable and thus, 'not useful'. Seemingly, the elderly play crucial roles in umpteen manners even though their primary roles such as bread-earner, homemaker, protector, have faded. Even though it is claimed that elderly, in modern times, are into role-less state, in everyday life, they perform many important functions – from overseeing the work of a maidservant to nurturing their grandchildren with tender care and protection; from buying vegetables and grocery for the household to facilitate novice son learn business tricks. Often these functions go unnoticed, unrecognized and unappreciated. The time, indeed, has changed significantly and is not quite in favour of the elderly. Older persons have vast experience and it is the duty of society to recognize and harness the potential of the elderly for the overall growth and well-being of society.

Gaining insight into Active Ageing

The World Assembly on Ageing in 1982 talked about 'adding life to the years'. It means that medical science and other factors have increased the human longevity, and now we should move towards ensuring healthy and active ageing. In the next section, an attempt has been made to look into the existing literature on issues related to active ageing and productive roles of the elderly.

Changing Dimensions of Ageing

As most of the European countries like Italy and those in other continents are becoming aged societies, demand for workforce in these regions is chiefly met by migration of educated and skilled labour from Asian countries like India. Projections show that the net migration of 0.22 million talented professionals from India to more developed regions will continue in every five years for next few decades (United Nations, 2002). Further, Indian women, who have been playing a crucial role as traditional caregivers, especially to the aged and children, are increasingly involved in the job market. Government of India (2005) in its Economic Survey report (2004–05) brought out that in 1990, the proportion of female employees to the total workforce was 13.8 per cent, which rose to 18.4 per cent by the year 2003. These statistics reveal many trends. Traditional means of support system are fading as young men are migrating and women are engaged in economic pursuits making the elderly more vulnerable.

Bhattacharya (2005) analyzes that since Independence, Government of India has promoted primary and secondary sectors, but with the economic liberalization, a reverse trend has started. The service sector is growing by leaps and bounds due to abundant opportunities, while competitive forces adversely affect the growth of other sectors like agriculture and manufacturing. Young talent is drawn to the service sector for better career prospects. Consequently, the aged having know-how of agricultural production has largely become out-dated. Vaidyanathan (2005) notes that in India, the State has failed to respond to the increasing social security demands of the elderly population, especially when the traditional support systems like joint families are gradually eroding. Likewise, the World Health Organization (2002) visualizes great difficulties for the Government of India in developing a sound social security system that can protect and promote the rights of income-security during post retirement years. It maintains that neither the government nor the public sector alone can formulate it. Joint approaches and strategies will be required to design and build up a robust old-age income security system. This situation makes it clear that, by and large, no society can afford to ignore the potential and expertise of elderly for their own well-being and that of the nation's progress.

Healthy Ageing

Apparently health status is a contingent condition that greatly facilitates or inhibits the roles played by the elderly in the family and neighbourhood. Healthy and active ageing contributes to amicable family relations and well-being among aged women in a positive way (Panda, 2005). Positive association between well-being of older people and variables such as living with family, having children and community involvement has been reported (Kumar and Acanfora, 2001). A higher rate of morbidity among the elderly of Haryana is found to be directly related to disability, dependence and distress (Joshi, *et al.*, 2003). It shows health vulnerability increases with age. Therefore the efforts made by elderly for an active and healthy life need to be documented systematically.

Mental health

The magnitude of mental morbidity, in India, among the aged population, is nearly four million (Bose, 2000). This is a serious cause of concern when seen in the context of woefully low psychiatric services. The life-satisfaction among the aged is dependent on several factors like good health, subjective well-being, amicable family relations and overall happiness. Active life, initiative-taking in adopting new roles and helping with household and community work have been found to contribute to life-satisfaction and happiness among the older persons (Kaushik, 2011). On the contrary, ill-health, dependence, and isolation lead to anguish and mental ailments. Though research has identified many challenges associated with mental health of the aged, the linkage between mental health and active-ageing needs to be investigated further.

Economic Condition

Economic condition is an important variable influencing the well-being of senior citizens. Panda (2005) observes that amicable relations with others inculcate sense of security among the elderly women and not the possession or lack of economic resources. Nearly 40 per cent of the elderly women are economically deprived and require social assistance (Khan, *et al.*, 2006). It follows that the economic condition and sense of security are important determinants

for the well-being of the aged. However, its bearing on the roles played and contributions made by the elderly in their social life has not attracted adequate research attention.

Roles and Contributions by the Elderly

Panda (2005) finds that elderly women who actively and willingly participate in the household chores and childcare activities are given respect and reverence by the family members. In urban Kerala, Kamalamma and Selsa (2000) observe that most of the elderly women look after the kids and attends the other home responsibilities, especially during the absence of grown up family members. More than one third of the elderly women takes responsibility of housekeeping. The social involvement in old age, an important aspect of active ageing, depends upon a number of factors including marital status, income level, individual resource control and health status (Chadha, Willigen & Kedia, 1996). Literature review brings out that the research focus has primarily been on the vulnerabilities and problems faced by the elderly. The contributions made by the elderly, the significant help provided by them in day to day life also needs research attention. Along with this determinants influencing the roles and contributions of the elderly require systematic study. Further, it is often held that urban life poses hurdles in the social integration of the elderly as many informal support systems are not available there in comparison with rural life. Urban life is characterized by the fast pace of life, cut throat competition, impersonality, alienation, with no time for others including family members. Young people prefer independence and privacy, and apartment houses are known for limited space. This tends to make the aged somewhat excluded and alienated. How do the elderly cope with such issues? What roles are they playing in the family and community? In what ways they are contributing to the social life? What is the role of socio-economic status in influencing the activities and roles played by senior citizens? The present research attempts to identify answers to some of these questions.

On similar lines, the present study was planned to look into the contributions by the elderly in their social life in varied ways

Methodology

In this backdrop, the present study, adhering to a descriptive research design, was aimed to look into the socio-demographic profile of the elderly and the roles played by them in the two neighbourhoods. The Universe of the study was the elderly living in the National Capital Territory of Delhi. The sample unit was a person aged 60 years or above and the sample size was 200 senior citizens. The study intended to ascertain the lifestyle of elderly people in the two neighbourhoods in the western part of Delhi – Dwarka and Kakrola Gaon. Quite interestingly, these two areas are merely one and a half kilometers apart. Dwarka, one of the largest residential colonies of Asia, mainly caters to residential needs of middle and upper-middle class income group families. In contrast, another neighbourhood Kakrola Gaon predominantly has inhabitants belonging to lower socio-economic strata. Stratified random sampling is used with two levels of stratification, one was gender and another is neighbourhood (Table 1).

Table 1
Study Sample

Sample Area	*Sample size*	
	Male	*Female*
Kakrola Gaon	50	50
Dwarka	50	50
Total	100	100
Grand total	200	

In Dwarka, a list of all the residential societies was procured from the councillor and randomly one society namely Metro View Apartments society was selected for the survey. Permission for conducting interviews was sought from the President of the society. A list of members of the society was procured and 60 males and 60 females were selected randomly. The extra 20 names in the sample frame were to offset 'casualties', if any, say, on account of non-availability of prospective respondents, their unwillingness to participate in the research, health and language constraints, etc. For Kakrola Gaon, a

Voters' list was acquired from the District Census Office. From the list, the names of prospective respondents with addresses were noted down. From this list, 60 males and 60 females were selected randomly (20 extra for offsetting any casualties). Detailed interview schedule was considered the most suitable tool for data collection and interview technique was used for gathering information from the elderly.

The interview schedule was both qualitative as well as quantitative in nature and covered dimensions like – personal profile, family background, health status of the respondents, their daily activities, their socio-economic and health condition, activities performed in the family and neighbourhood. After data collection, each interview schedule was checked for errors/empty entries, if any. The SPSS version–17 software was used for data entry and analysis. Frequencies, bivariate tables and statistical applications like Pearson's R (correlation) were computed for two neighbourhoods.

Findings

Age Distribution

In the present study, respondents are from two neighbourhoods – Dwarka and Kakrola Gaon. Data shows that Dwarka has almost double the number of young-old elderly (60–69 years) as compared to Kakrola Gaon. Out of the 72.5 per cent young-old elderly, 46.5 per cent are in Dwarka and 26 per cent in Kakrola Gaon. Conversely, Kakrola Gaon has a major share of older aged persons, that is, in the middle-old (70–79 years) and old-old age category (80 years and above). All the old-old elderly respondents in the study are from Kakrola Gaon (see Table 2).

Table 2

Age and Sex-wise Distribution of the Elderly in the Two Neighbourhoods

Gender	*Place*	*Young old (60–69 yrs)*	*Middle old (70–79 yrs)*	*Old-old (80 yrs and above)*	*Total*
Male	Kakrola Gaon	22	20	8	50
	Dwarka	46	4	0	50
Female	Kakrola Gaon	30	20	0	50
	Dwarka	47	3	0	50

The Young-old elderly are often taken as energetic, more independent and productive in comparison to their older counterparts. With this parameter, elderly inhabitants of Dwarka are more likely to contribute significantly to social life.

Marital Status

In the study, 71.5 per cent respondents are married, 27.5 per cent widowed, one per cent 'never married'. Pattern of the marital status of respondents in the two neighbourhoods is quite similar. Among the married respondents, 49.7 per cent are in Kakrola Gaon and 50.3 per cent in Dwarka. Likewise, among the widowed, 49.1 per cent are in Kakrola Gaon and 50.9 per cent in Dwarka. One per cent 'never married' elderly are in Kakrola Gaon. Widowhood has diverse repercussions and a gender angle too. It snatches away the role of spouse. For females, in patriarchal social structure, it can result in increased abuse and exploitation, especially in elderly women (Khan, Yusuf and Kaushik, 2006).

Social Group Identity

Religious affiliations play crucial role in the formation of social identity. In India, Hindus form the largest religious group followed by Muslims, Sikhs and Christians. There are 91 per cent Hindus in the study, 3 per cent Muslims, 2.5 per cent Christians and 3.5 per cent Sikhs. Kakrola Gaon has predominantly Hindu population (95%) followed by 3 per cent Muslims and 2 per cent Sikhs. In Dwarka, there are 87 per cent Hindus, 3 per cent Muslims, 5 per cent Christians and 5 per cent Sikhs. Likewise, caste, too forms an important component of social identity. In the study, 21.5 per cent respondents are Scheduled Castes (SC), 28.5 per cent belong to Other Backward Classes (OBC) and 41 per cent are 'other caste groups (typically called the upper castes: Brahmins, Kshatriya, and Vaishya). Among the SC, 70 per cent are habiting in Kakrola Gaon and 30 per cent in Dwarka. All the respondents in the category of OBC stay in Kakrola Gaon. In Dwarka, 90 per cent of the respondents belong to other caste groups.

A look into the history of Kakrola Gaon may help us find the answer of this skewed distribution. Almost touching the outskirts of Delhi, this area was predominantly occupied by cultivators. In the

early decade of 1990s, the government of Delhi bought the land from the inhabitants and gave them due compensation. On the other hand, Dwarka, a recently inhabited place, largely caters to the housing needs of professionals. While people in Kakrola Gaon were mostly engaged in the primary sector, Dwarka has more service class.

Period of Stay in Delhi

Period of stay in Delhi is crucial for getting accustomed to urban-life. Those living in Delhi for several years often show better adjustment to the urban-environment than the ones who are relatively new to the place. Data bring out that most of the elderly in the study have been staying in Delhi since their early or late childhood. The mean time of stay in Delhi is 52.4 years (SD = 12. 6). The data are largely homogeneous. There are 94.5 per cent of elderly who are staying in Delhi for more than ten years and only 5.5 per cent of them have had up to five years of stay in the Capital. Many respondents, especially in Kakrola Gaon have been staying in the current neighbourhood since their birth. In Dwarka, 48 per cent elderly, who are relatively new to the city (up to 5 years) are residing.

Educational Level

Education is taken to inculcate, among others, understanding, reasoning and self-reliance that play a crucial role in successful ageing. In this study, 41.5 per cent of respondents are illiterate, 9 per cent have studied up to fifth standard 16 per cent up to fifth standard or have accomplished primary schooling. Further, 33.5 per cent of the respondents have studied above tenth standard. Mean years of schooling is 3.5. Table 3 shows a wide gap between the educational status of respondents in the two neighbourhood.

Table 3
Educational Status of Respondents

Place	*Illiterate*	*Up to Fifth*	*Up to Tenth*	*Above Tenth*
Kakrola Gaon	39.5	7.0	3.5	0.0
Dwarka	2.0	2.0	12.5	33.5
Total	41.5	9.0	16.0	33.5

It shows that none of the respondents in Kakrola Gaon have studied above 10th Class. Most of the respondents are illiterate. However in Dwarka, most of the elderly respondents have studied above tenth. Looking at the gender angle, data bring out that among the illiterate respondents, 60 per cent are females and 40 per cent males. Among the aged persons studied up to the primary level, 55.6 per cent are males and 44.4 per cent females. Next, 31.3 per cent females and 68.7 per cent males have studied up to 10th standard. The ratio of elderly males to females in terms of educational qualification of more than tenth class, this is, graduation or post-graduation, is 7:3. Thus, with increasing educational qualification, the proportion of aged women is decreasing. The reason for this could be traced back to a patriarchal social structure which gives preference in terms of the opportunities of education and development to males.

Family Composition

In the present study, four family-set-ups have been identified. Joint family groups (i.e. respondent staying with her married sons) are the most popular having the proportion of 77 per cent. Further, 1 per cent of the respondents are staying all alone and they are Dwarkaites. Also, 16 per cent of the elderly respondents are staying with their spouses only, that is, elderly husband and wife and all of them are staying at Dwarka. The proportion of nuclear families (i.e. respondents with their spouses and one unmarried child) is 9 per cent. Thus, while the joint family pattern is the prominent feature of Kakrola Gaon, nuclear and other alternate family patterns were largely found in Dwarka.

Occupational Status

Looking at the past occupational status, one-fourth of the respondents have remained non-workers, 37 per cent were in agriculture work, 3.5 per cent were in business, 8.5 per cent into private service, one-fourth were in a government job and only 1 per cent were wage earners. Regarding the present occupation, most (95.5%) are non-workers, 3 per cent into business, 0.5 per cent into private service and 1 per cent work as wage earners. Table 4 provides the details of occupational status of aged respondents in two neighbourhoods. In Dwarka, most of the male respondents have retired from government

or public sector undertakings or private limited companies. Women, more often than not, have remained housewives. Though, Kakrola Gaon was considered to be an economically deprived area, it is somewhat an unplanned suburb where most of the residents are cultivators. Largely, they have been born and brought up in Delhi itself. In 1991–92, Delhi Government bought their land with heavy compensation. Most residents invested the money in building houses, shops and buying property.

Table 4

Distribution of Past and Present Occupational Patterns of the Respondents

Place	*Non-wkr*		*Agricltr*		*Business*		*Private*		*Govt.*		*Wage*		*Total*	
	Past	*Pr.*	*Past*	*Pr.*	*Past*	*Pr.*	*Past*	*Pr.*	*Past*	*Pr.*	*Past*	*Pr.*	*Past*	*Pr.*
Kakrola Gaon	10	92	74	–	7	6	4	–	3	–	2	2	100	100
Dwarka	40	99	–	–	–	–	13	1	47	–	–	–	100	100

In consonance with the gender norms, a half of the female respondents have remained non-workers while none of the males were without a job/economic pursuit in their youth-hood. Thirty seven per cent of the respondents in each, male and female, were involved in agriculture but after parting with agricultural land, that occupation no more exist. Hardly, two to four per cent respondents have had and/or are engaged in business. Another interesting finding is that 40 per cent males and 10 per cent females were in government jobs. None of the elderly females were working in private job. This trend of occupation based on gender largely adheres to societal norms. Analyzing the information on occupational status of the respondents on the capabilities-vulnerabilities dimensions, it may be noted that wage earners are the most vulnerable. Two per cent males were working as daily wagers. This reflects economic insecurity as well as health vulnerability. Involvement in physically strenuous jobs in old age may have been a difficult proposition. Added to this, those retiring from government jobs may be getting a pension and, therefore, are in a state to enjoy financial security. Females who have been non-workers may be dependent on their spouses and children for economic security.

Elderly persons currently engaged in economic pursuits are, assumingly, at a higher pedestal than their counterparts.

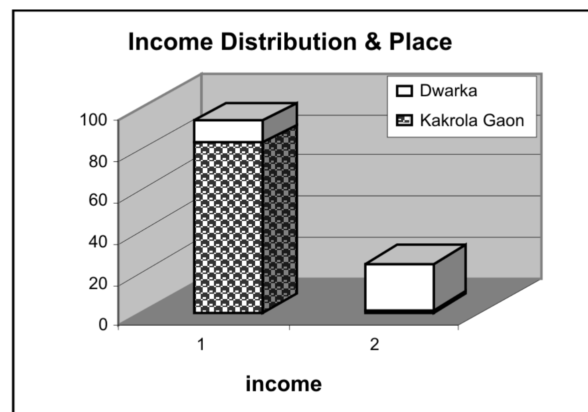
A look at occupational status of respondents based on the neighbourhood would be important. Data bring out a strong association between the place and occupational status. Contingency coefficient in this case is 0.648 (past occupation). Some of the noteworthy findings may be delineated. Cultivation or agriculture related activities as past occupation of the respondents is confined to Kakrola Gaon. Most of the respondents residing in Dwarka, largely males, had been working in the government sector. Though a small proportion, but the elderly involved in the business are from Kakrola Gaon.

Income

A steady source of income is essential for meeting needs and maintaining the quality of life. It is often said that certain gender discriminating socialization practices like priority to males over education, employment opportunities, etc., have left the aged women with minimal skills to earn. They are, thus, more or less, dependent on their family for their maintenance. Apparently, families with ample resources, most often, do not feel the financial strain while caring for their aged relatives. On the other hand, when resources are scarce, more often than not, youngsters are given priority over the aged. In urban set up where children's education and the high cost of living often create a financial burden on the parents, care of the elderly especially for the middle and lower socio-economic class becomes a strain. So, the income of the respondents is an important indicator in ensuring security and well-being. Let us first pay attention to the total monthly income of the respondents.

Data shows that the range of the monthly income of the household is from Rs 1,000 to Rs 15,000. The mean is Rs 8,028.2. The data are quite heterogeneous (standard deviation = 3,986.76). Skewness (= +0.71) shows that concentration of frequencies is towards the lower income groups. To facilitate further analysis, total monthly income of the household has been divided into two categories – Rs 1,000 to Rs 8,000 as low income and Rs 9,000 to Rs 15,000, cut off points being the 50th percentile. There are 45.5 per cent respondents falling into the low income category and 11.5 per cent in the high

income group. The rests of the respondents, 42 per cent, were in null category. Let us look at the income distribution of the respondents in the two neighbourhoods. The findings show a strong association between the place of residence and income distribution among the senior citizens (Pearson's R=0. 644). About 88 per cent of the respondents from low income group stay in Kakrola Gaon in contrast to 11.8 per cent of them in Dwarka. In the high income group, 95.7 per cent of the respondents are residing in Dwarka while only 4.3 per cent of them are from Kakrola Gaon (Diagram 1).



Looking from the gender angle, there is no wide gap between males and females in the low income category – 54.8 per cent males and 45.2 per cent females. On the contrary, in the high income group, this disparity is quite significant – 78.3 per cent are males and 21.7 per cent are females. The results could be traced back to patriarchal social structure.

Health

Deterioration in sensory capacities is one of the common health conditions in old age. Study results show that two-thirds of the respondents complain of poor vision and one-third face problems related to locomotion. Another 19 per cent respondents have reported that there is deteriorating change in their hearing capacity and 9.7 per cent tremble. Deteriorating eyesight is the most common problem faced by

the respondents. These changes might be posing hurdles in their activities of daily-life and interaction with neighbours. In the study, 57.5 per cent of the respondents did not report any ailment. However, among those suffering from some kind of degenerative diseases, the most frequent medical complaint was joint pains (23%), followed by high/low blood pressure and diabetes (10% each), respiratory ailments (2%), and 3 per cent of the respondents have undergone surgical operations. There is a noteworthy difference between types of ailments the elderly are facing and their area of stay. Ailments like diabetes, high/low blood pressure, etc., are common in Dwarka residents. Contrarily, health problems like joint-pains, arthritis, etc., are commonly found among the elderly of Kakrola Gaon. Viewing psychological implications of the ailments, 15.5 per cent of respondents reported increases in their irritability. When, due to chronic ailments, dependence on activities of daily living increases on caregivers, irritability often sets-in. Psychological fear of isolation and neglect in need of care is another implication. Respondents expressed that care-giving issues are prominent as often their daughters-in-law are working and family members do not have enough time to provide constant care. Under economic implications, common worry was huge and long-term expenditure on medical treatment. Another implication is inability to work. Most respondents wanted to continue active economic-life in old age but face restrictions posed by health problems. This is more peculiar to respondents staying in Dwarka (rank correlation=0. 312) and more common among men (rank correlation=0. 278). Elderly people in Kakrola Gaon seem to have contemplated their sedentary lifestyle in old age. They generally believe that youth-hood is to work and old age is to retire and relax. In juxtaposition, elderly respondents in Dwarka showed keen interest in continuing their active lifestyle. Appraising social implications of health problems, nearly 16 per cent of them stated that their outside interactions have significantly reduced. The aged respondents are not able to attend to many social obligations like marriage ceremonies due to health problems.

The average visit to the doctor was 5.5 times in the last one year. The data further bring out that frequency of visit to the doctors was more in the case of respondents in Dwarka than those staying in

Kakrola Gaon. Merely, 1 per cent of them had health policy. With the media propaganda regarding the desirability of having a health policy for elderly, it was shocking that even the government employees were not having the same. Data shows that 20 per cent respondents are not found to be involved with anything to keep themselves healthy. Other, 36.5 per cent respondents walk in the morning or evening, 11 per cent adhere to a restricted diet, 2 per cent do *yoga* and *Pranayam*, and 30.5 per cent of the aged persons do all the above activities to maintain good health. Data analysis further shows that elderly persons in Dwarka, more often than not, have pro-active attitude towards health than their counterparts in Kakrola Gaon. Among the respondents who go for daily walk, the proportion of those living in Dwarka is seven times more than those in kakrola Gaon. None of the respondents in Kakrola Gaon mentioned about restricted diet as a part of keeping healthy strategy. Likewise among those who do yoga, the ratio between inhabitants of Dwarka and Kakrola Gaon is 3: 1.

Roles

Binstock and Shanas (1976) state that the loss of roles deprives people of their social identity. The elderly are excluded from their prime roles like employment, home-management, parenting, which affect their well-being. In old age, due to shrinkage of social roles, there is obvious deterioration in self-concept and social acceptance. However, those aged who replace their lost roles, take initiative in social participation often stay happy and contented.

Role as spouse: Marital relationship offers companionship, responsibilities, security and well-being, especially in old age. In the study, married respondents (71.5%) were asked about the common activities they share with their spouse. Most preferred activity as reported by the respondents is sharing problems and feelings (32.4%), followed by casual talks (24.8%), going for morning and evening walks (13.8%) and shopping/banks (14.5%), other activities like going to friends, cooking (10.3%), and going to temple/discourses (4.2%). In old age, couples generally have ample time to share and support each other due to retirement and relative freedom from parenting and household responsibilities. Further, elderly respondents from Dwarka are more frequently involved in outdoor activities like morning/evening walk,

shopping and sharing feelings and problems with their spouses, while in Kakrola Gaon, casual talks were the most preferred activity.

Role as grandparent: Grey years do bless people with a very significant and satisfying role of grandparent. In the study, 29.8 per cent of the respondents have had no interaction with the grandchildren as they are not staying with them or they have no grandchildren. In 11.1 per cent cases, grandparents just have casual interactions with their grandchildren. Next, 22.8 per cent of grandparents share experiences, problems and feelings, tell stories, etc. Further, 20 per cent grandparents take care of their grandchildren after school hours, say, providing food, overseeing their work, etc. Another 16.3 per cent grandparents play games with their grandchildren or go with them for morning/evening walks. Looking at the differentiation based on the area or place, in Dwarka, grandparents more often bring their grandchildren from schools, play with them, and give them foods when they return from schools. On the other hand, those from Kakrola Gaon, often engage in casual talk with their grandchildren. Table 5 depicts activities shared by elderly with their grandchildren in the two neighbourhoods. There is a significant association between the activities shared with grandchildren and place of stay (Pearson's R=0. 383). Data shows that grandparents in Dwarka are more involved in caring for their grandchildren. The reason may be that in Dwarka, generally, daughters-in-law are engaged in economic activities outside the household.

Table 5

Activities Shared with Grandchildren by Elderly in two Neighbourhoods

Place	*Casual talk*	*Share feelings*	*Play*	*All of them*
Kakrola Gaon	73	5.6	2.9	0.0
Dwarka	2.1	35	26	30.5

Activities Shared with Children

Data shows that two per cent of the respondents do not have any interaction with their children. Further, 47.5 per cent of them have casual talks with their children. In 37 per cent cases, old parents share feelings and problems with their children which depict the quality of

relationship. There are 0.5 per cent parents maintained that the most common activity between their children is giving them food. There are 13 per cent respondents who either do not have children or their children are not staying with them. Further analysis brings out that elderly parents in Kakrola Gaon have more often conformist relationship with their children (say, casual/formal talks) while Dwarkaites more frequently share feelings and problems with their adult children (Pearson's R = 0.490). Likewise, 19.5 per cent of the respondents do not have any interaction with their daughter(s) in law. Further, 29 per cent of them have casual talks with their *bahus* [daughters-in-law]. Also, 5 per cent of the parents in law share emotions, feelings and problems with their daughter(s) in law; 20 per cent of the respondents share household work with their daughter(s) in law. Next, 26.5 per cent of the respondents are in the null category – either they do not have daughter(s) in law or they do not stay with them. It seems that elderly in Dwarka are having egalitarian and friendly relationship with their daughters-in-law.

Role as friend: Apart from the family groups, peers or friends play an important role in the life of the aged. Women, traditionally, are not encouraged to have friends. Peers living in the close proximity of the household are likely to play the role of friend as they often tend to fulfil their relational and recreational needs and are antidotes of their loneliness and neglect at the home front. Let us look into the activities the respondents share with their friends. In Dwarka, the researcher has observed the elderly sitting in groups in parks and chatting. They also go to *Satsang* [collective devotional talks/prayers] with their friends in the nearby temple. Many go out to buy milk from the Mother Dairy booth with friends as a daily routine. In winters these old buddies sit and chat in the Sun for hours with friends and neighbours. For widowed particularly, such engagements are quite helpful in combating loneliness and grief. Friends also act as a cushion for their catharsis, at some conflicting situations in the household, the aged often ooze out their anger and frustration in front of their friends. In the study, 21 per cent respondents do not have friends, out of which, 73 per cent belong to Kakrola Gaon.

Contributions of Senior Citizens

In the contemporary times, the image of the elderly has been distorted enough and apparently they are treated as spent-forces and passive. In a society that places high value to the 'productivity' or 'usefulness' of its members, the elderly are taken as unproductive and considered as burden. In the present study, elderly respondents were asked about their contributions to their family and community. Details are as follows:

Contributions in Daily Household Work

The respondents were asked what they do to contribute to the household – 24.5 per cent respondents (all women) still do all the daily chores of the household. The rest of them do not do household work and reasons told are as follows – 40.5 per cent respondents maintained that their daughters-in-law do all the work and in 10 per cent cases health problems are hindrance to do so. Further, two respondents, being engaged in income generating activities, do not participate in household work and the rest told that it was not required. Comparison between two neighbourhoods, in terms of contributions in household work, shows a statistically significant relationship (Pearson's R = 0.429). Dwarkaites are more active – shopping for the household, dropping-picking grandchildren from school; the household chores are solely carried out by elderly people in Dwarka. Two-thirds of the elderly from Kakrola Gaon as compared with one-third of them from Dwarka do not contribute anything in the household work.

Contributions in Community

In the past, the elderly have enjoyed respect and had a role in the community life. They would resolve conflicts as *Panch* members [elected leaders at grassroots governance]; provide know-how to youngsters on cropping and irrigation, and various other facets of life. However, contemporary world does not encourage such roles of elderly in the community life. Newer systems have taken over the significance of experience and wisdom of senior citizens. Nonetheless they are contributing significantly in a myriad ways in the community life. Let us see the situation in the study. Findings present that 53.5 per cent of respondents are not contributing anything to the community,

as per their version. Also, 22 per cent of them have attended social engagements and 12 per cent have complained to authorities about civic amenities. Further, 4.5 per cent respondents have resolved conflicts in their neighbourhood and 0.5 per cent senior citizens have helped the needy. Added to this, 7.5 per cent respondents have attended community meetings. In this regard, Dwarka residents seem more active as the elderly are provided with the scope of engagement in Resident Welfare Associations' work. When the younger go to the workplace, elderly people maintain society's office, oversee the work of staff like plumber, electricians, cable operators, security guards and the like. Often they arrange for community celebrations on festivals like Holi and Diwali. Added to this, The Senior Citizens Association, not bound by Cooperative Housing Societies, is also active in Dwarka and members of the same are involved in arranging for health check up camps, discourses and discussions on various issues like religion, spirituality and security concerns vis-à-vis elderly inhabitants. Kakrola Gaon lacks such scope of participation of senior citizens. Nonetheless, it is a close knit community where elderly do participate in marriages and other functions of their kith and kin. The strong inverse relationship between community involvement and gender (Pearson's $R = -0.404$) indicate that women lag behind in contributing to community life. It may be due to gendered socialization and limited opportunities offered to women for outside household engagements in patriarchal social structure.

Contribution in Creative Pursuits

One respondent wishes to contribute through writing books, 2 per cent want their painting skills to be passed on to younger generations, while another 2 per cent can teach singing to others. Also, 6 per cent women, proficient in sewing and tailoring can contribute in the same. Further, 4 per cent of them informed that they like to provide moral education to the younger generation. One aged male wishes to teach German language to others. The rest of the respondents did not specify the creative skills they wish to contribute. When asked about sharing of rich experiences they have preserved with younger generation, 8.5 per cent told that they would like to teach younger generation the value of family togetherness, 4 per cent aged ladies want to pass on their experiences on child rearing practices, 3.5 per cent aged

women also are willing to share knowledge on home-remedies, 4.5 per cent respondents from Kakrola Gaon wish to share their rich knowledge and experience on agriculture related activities but feel bad that now the primary sector is shrinking fast and youngsters do not wish to put in efforts in that.

Elderly respondents were further asked why despite their willingness, they are not able to pass on their skills and knowledge to the younger generation. Almost unequivocally, they responded that the younger generation does not have time and/or willingness to learn from elderly relations. Many respondents also told that their skills and know-how have become redundant and have no market value in globalized world. Thus, we can infer that active participation of the elderly in developmental activities would make them better able to cope with the problems of ageing. Active ageing would not only lead to enhancing the quality of life of the aged but also ensure progress and development of the community and society in general.

Implications of the Findings and Suggestive Interventions

The World Health Organization (2002) delineates determinants of Active Ageing as – Social determinants, Physical determinants, Economic determinants, Health and Social service determinants, behavioral determinants, and personal determinants with gender and culture as crosscutting determinants. In the study results too, these determinants clearly denote a difference in active ageing in the two neighbourhoods. Cultural values and norms play a crucial role in shaping human behaviour and interactions including developing collective perception towards a population group. This is also true in the case of elderly. It is worth noting that 'culture' as a cross cutting determinant is reflected indirectly and subtly in the perceptions, attitudes, behaviours and day to day functioning of the elderly. The aged respondents from Kakrola Gaon have been socialized since their childhood and prime time so that now 'old age' is meant for retiring and resting. It is the obligation of the society to provide care and support to them. In fact, subtly, Indian cultural tradition, since ancient times, has proclaimed adherence to Ashrama theory by which in old age people are expected to 'renounce from active social life'. With this

image, the elderly from Kakrola Gaon, by and large, do not comprehend underpinnings and benefits of active ageing.

Likewise, again a function of culture, aged respondents showed apathetic attitude towards their health condition. For decades, they considered old age to be synonymous to diseases and deterioration in health. They, in general, do not realize that proactive attitude and proper attention to their own health (by way of regular exercise, yoga and changed diet patterns) can go a long way in ensuring active and healthy ageing.

In juxtaposition, senior citizens in Dwarka actively take part in social engagements and familial roles. On all the determinants given by the WHO for active ageing, they scored better than their counterparts in Kakrola Gaon. They exhibited conscious diet control, regular exercise, participation in Resident Welfare Association's activities and neighbourhood social engagements. They are, as far as possible, continuing with their preferred active life style. In the light of Continuity theory, adherence to an active life is a precondition of happy and healthy ageing. Dwarkaites are comparatively more motivated for contributing in community and social service.

Further, though gender is another cross cutting variable, its acute manifestation was more visible in Kakrola Gaon where the elderly have traditional rigid expectations from their daughters-in-law and the latter in their turn abide by the strict norms related to gender roles. This was reflected in situations where aged males were hardly seen contributing in household chores or conversing with their daughters-in-law. On the contrary, this conformist gender role adherence was not there in Dwarka where father-in-law freely shares healthy relationship with his daughter(s)-in-law contoured by egalitarian approach. The findings of the study also discard the argument that the characteristics and problems of the elderly are almost similar in all societies or at least within a community, which might not be true. The two sample area sites – Dwarka and Kakrola Gaon are not even one kilometer apart, still the socio-cultural milieu influencing ageing related attitudes and behaviours are in contrast. Old age and related issues are significantly diverse. People age differently because they have their own unique hereditary endowments, different socio-economic and educational background and differential patterns

of living with diverse life-experiences. These differences increase with age and predispose individuals to react differently to similar situations. Therefore, it may be our narrow view to classify a person as typically old or any trait as typical of old age. Definitely, urban environment plays a crucial role in the well-being of the aged. While it provides opportunities for diverse advanced education, occupations, higher income, medical facilities and civic amenities, it has a darker side also. Certain features of urban life such as intense ruthless competition, earning for livelihood and living standards, time paucity for personal interactions, impersonality, growing crime rate etc. makes it insensitive and indifferent to the interaction and relational needs of the elderly. Also, changing roles and expectations of women, their career ambitions and employment outside the home implies considerably reduced time for care-giving to elderly relatives. Limited living space and financial stringency, in urban areas, contribute negatively to the well-being of senior citizens. This is visible in Dwarka, where many elderly/elderly couples are living alone and their children are not there to take care of them in old age. Neighbourhood too, unlike rural milieu, does not show any interest in interacting or supporting the elderly living alone in their community. Nonetheless, following the principles of active ageing, the challenges offered by this unprecedented social change (in the family composition where aged individuals/couples are living alone) can be handled aptly. For this, not only elderly themselves but also other state and non-state stakeholders play a critical role. Active ageing framework given by the World Health Organization does not put the entire responsibility of dealing with old age challenges on the elderly themselves; rather, it talks about convergence of services.

In old age, there is a shift in the role of an aged from a ‘provider’ to a ‘dependent’. This change often brings dissatisfaction. Aged persons need to realize that they are capable of leading an active and pro-active life, may be on a restricted scale. Elderly people need to be encouraged to take up newer roles, say, involving themselves in child-care activities like baby-sitting, dropping and receiving grandchildren at the school bus, sharing their experiences and problems, accompanying them to playground, story-telling, getting electricity and telephone bills paid (if agencies located within convenient distance). Such an initiative in taking up new roles may greatly help

the aged in better adjustment and active ageing. Cultural context plays an important role in active ageing (as clearly reflected in the present study). Wherever and whenever the cultural norms and values pose challenges to active and productive life in old age, there is a dire need to bring corresponding changes in the attitudes and value system, among the elderly as well as a younger generation. Behaviour changes communication, cognitive restructuring, social marketing, are some of the potential strategies that can pave way to active and fruitful ageing by bringing about necessary alterations in the cultural beliefs, attitudes and perceptions of the people towards ageing and the aged.

Utilization of Economic Potential

It is possible to devise aged specific employment generating schemes. Economic utilization of this potential will have salutary repercussions on social welfare in various ways. It will make for better health and greater happiness of the aged themselves. It will bring down social expenditure on the sick, the infirm and the destitute. It will increase the proportion of economically independent amongst the senior citizens and thus lower the dependency ratio and increase the expendable income of the other age groups on themselves. The contribution of the elderly will enhance the national domestic product of the country.

Channelizing the Social Potential

Findings show that often the elderly have the capacity, motivation and time for participating in community development initiatives. There is a wide range of social activities for which such persons would like to devote time and energy. The role of voluntary organizations can be significant and the elderly can act as a volunteer or as advisors. Likewise, in old age homes, elderly inmates can work as caretakers. This would develop a sense of ownership and control among them. Many aged persons are weighed down by certain urban characteristics like impersonality and a lot of free time. They sometimes feel lonely, alienated and neglected. Towards this, 'day-care centre', a scheme of Government of India, offers them services as reading room, indoor-games, medical check-up, outings, lectures and vocational activities. However, there is a pressing need for the services of day-care centres to expand, both in number and quality. The

scheme should have the support of state governments and union territories as a social welfare programme at the neighbourhood or *moholla* level.

In the emerging social scenario, older persons face a plethora of problems without having a corresponding change in the perspective and attitude of the upcoming generation. In this, media of mass communication have a major role to play. Both print and electronic media need to highlight ways and means through which intergenerational solidarity can be enhanced. The National Policy on Older Persons 1999 also maintains that creative use of media can promote the concept of active ageing and help dispel stereotypes and negative images about this stage of the life-cycle. During data collection, the researcher had a close contact with Resident Welfare Associations (RWAs). Most of the Delhi neighbourhoods have these RWAs. These have a major role to maximize the psycho-social satisfaction of the elderly. These institutions could assign elderly persons specific roles and responsibilities, paying due attention to their age and physical strength, for looking after the upkeep of the neighbourhood or for organizing recreational and cultural activities for children, adolescents and others. The National Policy on Older Persons 1999 also recognizes the importance of researches to be done by Universities, medical colleges and research institutions and calls for financial assistance to academic bodies for research projects on ageing. Also, social work research has a wide scope in this relatively under-researched area.

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An Assessment of Quality of Life of Elderly People In Old Age Homes in Chennai City of Tamilnadu

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ABSTRACT

The aim of this study was to understand the quality of life of elderly people in old age homes in Chennai city. 350 inmates , 60 years and above (Male = 82, Female 268) were selected by purposive sampling technique from seven old age homes in Chennai city of Tamilnadu. Bed ridden and mentally retarded inmates were excluded from this study. Interview schedule was used to collect data regarding their socio-demographic profile. World Health Organization's Quality Of Life instrument (WHOQOL-Bref) was used to assess the quality of life of inmates in old age homes. Data were analyzed using SPSS software. From the findings, it can be concluded that there was a significant difference between types of old age homes and quality of life of inmates. Factors like Age; Marital status; Condition of the spouse; Education; Money earned in past; Sources of income; Number of roommates and Staying years in old age homes have a significant influence on the quality of life of inmates in old age homes. In Physical capacity domain and Psychological well being domain, male inmates secured high quality of life scores than female inmates. But in Social relationship domain and Environment and living condition domain female inmates secured high quality of life scores than male inmates.

Key words: Quality of life (QOL), Old age home Inmates, Physical capacity, Psychological well being, Social relationship, Environmental condition.

Background of the Study

The problem of ageing is a global concern. It is experienced by every society and community. However, the magnitude of ageing and its manifestation are not the same everywhere. Many countries are witnessing population ageing. Proportion of population above 60 years has been increasing. The increase in the number of elders in a population can be attributed partly to increased life expectancy and to a large measure on improved health care and health maintenance processes. Decline in death rate and falling fertility rate are contributing to rise of the ageing population in many developed countries (Yogesh, 2000).

The problems generally faced by aged in India can be grouped as economic, medical and socio-psychological. The major problems which the new entrants to the group of 'elders' face are loss of employment, economic dependence and loss of social status (Pushpa, 2000). Because of recent demographic changes resulting in an increasing number of elderly persons in the population, institutions for elders, which were once considered a social stigma, are now being viewed as the basic right of every elderly person. Institutions for the elderly have become an inevitable option for caring the old parents. The old age homes provide basic needs for the inmates like food, shelter and clothes (Huoligin, 2002). Some homes provide extra facilities for an additional fee. Based on physical, psychological, social and environmental conditions, the level of satisfaction differ from one inmate to another.

With growing population of elders the number of persons institutionalized also will be increasing (Rajan, 2000). The present study is undertaken with the overall goal of understanding the socio-economic background of the elderly people and to assess the quality of life of the elderly people living in old age homes in Chennai city.

Review of Literature

Bodur and Dayanir Cingil (2009) used WHOQOL-Bref Scale to evaluate quality of life among Turkish elders in different residential environments. Participants were 60 years and older. The sample included 37 people who were living in a public-assisted living facility and 37 elderly people living in their own homes. The scores for elderly females staying in the assisted living facility were lower compared to the scores of males in the facility. The results suggest that social and environmental domains of life quality are low in elderly assisted living facilities. Social activities should be diversified for elderly people staying in assisted living facilities to improve social relationships. Physical and psychological health of females in assisted living facilities should be comprehensively supported by professionals. Alternatively, elderly people may be professionally supported to live in their own homes.

Heydari, *et al.,* (2012) analysed the health related quality of life of elderly people living in two settings. (i) Residents in a nursing home and (ii) Old age homes in a district of North Iran. The data were drawn from 220 elderly (60 years of age) sampled from both settings. The average scores for several domains including total physical health, total mental health and overall health were less than 50, which can be interpreted as a less desirable level of health related quality of life in Iranian elderly people. Residents living at homes scored better in all domains of SF–36. Multiple regression analysis indicated that residency, marital status and education had a significant coefficient for total SF36 score. The health related quality of life of elderly people in one city in Iran, particularly those in nursing homes, is inadequate. There is a need to design programs to increase elderly people's interaction with others and establish social networks for them. The study (Ibid) opined that these may enhance a sense of positive quality of life among the elderly.

Lai *et al.,* (2008) examined Health-related quality of life and Health utility for the institutional elderly in Taiwan. 465 elderly persons living in long-term care institutions in Taiwan were interviewed using Taiwan's abbreviated version of the world health organization quality of life (WHOQOL-Bref), rating scale (RS) and the Time-Trade-Off (TTO) utility measurement. Educational level, number of chronic diseases, physical performance, and number of

caregivers had significant ($p < 0.05$) impacts on the domain scores of the WHOQOL-Bref. Physical performance had the strongest impact on the physical domain and accounted for significant percentages of the variance on the other three domains. The validity of TTO utility for studying the institutionalized elderly needs further evaluation.

Objectives of the Study

The main aim of the present study was to understand the socio-economic background of the elderly people in old age homes and to evaluate their quality of life. The important objectives of the study are:

1. To understand the socio-economic conditions of the elderly people in old age homes in Chennai city of Tamilnadu state in India.
2. To evaluate the quality of life of the elderly people in old age homes in Chennai city of Tamilnadu state in India.

Methodology

Sample

The study was conducted in Chennai city of Tamilnadu which has the highest population in the state. Purposive sampling method was used to select 350 inmates from seven old age homes in Chennai city. Out of them, 23 per cent (N=82) were male inmates and 77 per cent (N=268) were female inmates. Based on inclusion and exclusion criteria, inmates were selected. The study included elderly people of 60 years and above, living in old age homes in Chennai city. It excluded below 60 years old inmates, bed ridden and mentally retarded inmates.

Tool Used

Interview schedule was used to obtain information about socio-demographic profile of inmates. Quality of life was evaluated using WHOQOL – Bref scale. This scale was standardized by the World Health Organization (WHO). The WHOQOL – Bref scale comprised 26 facets related to Quality of life under four domains such as a) Physical capacity b) Psychological well being c) Social

relationship and d) Environment and living condition and over all measures.

Findings

Socio-economic Conditions

The inmates were asked to indicate their response by choosing 1–5 possible options. More than half of the inmates (53%) belonged to the age group of 70 to 79 years.

Agewise Distribution of Inmates

Age (years)	Male		Female		Total	
	Frequency	%	Frequency	%	Frequency	%
60–69	21	26	70	26	91	26
70–79	42	51	142	53	184	53
80–89	18	22	50	19	68	19
90–99	1	1	6	2	7	2
Total	82	100	268	100	350	100

The present study revealed that more than three fourth of inmates (77%) were female and only 23 per cent were male.

Results revealed that high proportion of inmates belonged to the most backward castes (31%) following that 30 per cent of inmates belonged to schedule castes. More than half of the inmates were widowed (52%). Majority of inmates (133) were unmarried. It was observed that 19 per cent of male inmates and 36 per cent of female inmates had no children. The data also showed that 74 per cent had no grand children. Results revealed that 59 per cent of male inmates and 53 per cent of female inmates lived in nuclear families. More than half of the inmates' spouses (52%) had died. It was observed that 33 per cent of inmates had not gone to school, 20 per cent had studied up to primary school. 2 per cent of male inmates were unemployed and 61.9 per cent of female inmates were housewives.

The data revealed that 48 per cent of inmates did not have any income of their own and were fully dependent on family. Among the

samples 44 per cent of male inmates and 61 per cent of female inmates did not have any source of income. Overall 7 per cent of inmates had satisfying relationship with their children and 22 per cent did not have satisfying relationship with theirs. Substantial percentage of inmates (39%), male or female, lived with 6 to 10 roommates in dormitory rooms.

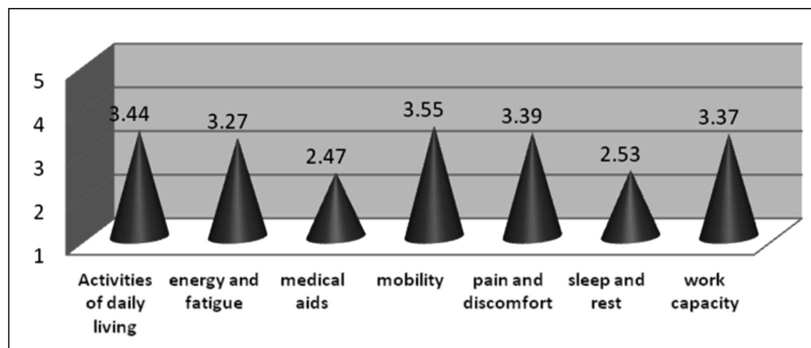
Quality of life

Quality of life of inmates was evaluated through WHOQOL-Bref scale. In this scale four major domains and over all measures were assessed through 26 facets. They are (a) Physical capacity – 7 facets, (b) Psychological well being – 6 facets, (c) Social relationships – 3 facets, (d) Environment and living conditions –8 facets and (e) Overall measures – 2 facets. All items are rated on a five point scale (1–5). According to Indian context changes have taken place in the facets.

Physical Capacity

Figure 1

Mean Value of Physical Capacity Facets Contributing to Quality of Lie



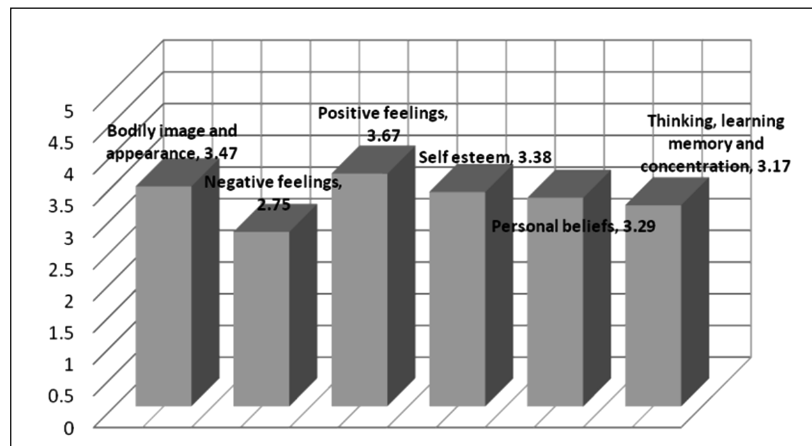
* More the score better the QOL, except the facets Medical aids and Pain and discomfort

The above figure (1) shows the mean value of Physical capacity (Domain–1) facets contributing to Quality of life of elderly people in old age homes. The mobility of inmates tops the list with the mean value of 3.55, Activities of daily living follow next with the mean value

of 3.44, Pain and discomfort of inmates follow next with the mean value of 3.39, Work capacity of inmates follow with the mean value of 3.37, Energy and fatigue come next with the mean value of 3.27, Sleep and rest follow next with the mean value of 2.53, Dependence on medical substances and medical aids with the mean value of 2.47 was the last facet in physical capacity of quality of life.

Psychological well being

Figure 2
Mean Value of Psychological well being Facets Contributing of Quality of Life



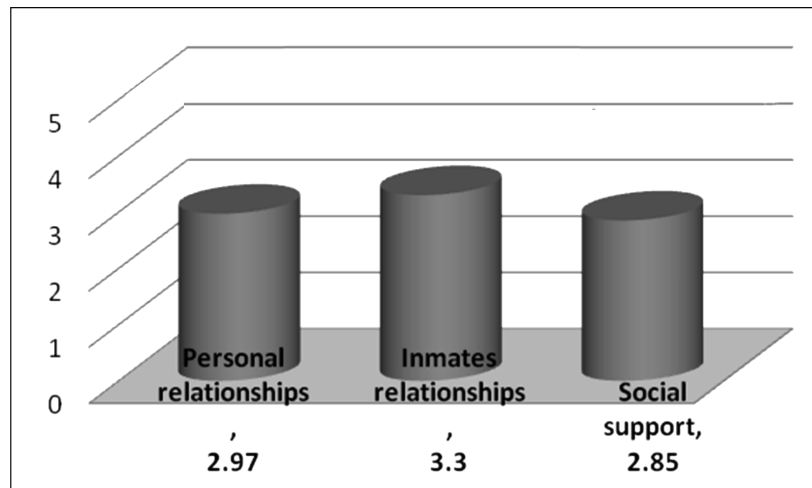
* More the score better the QOL, except the facet Negative feelings

The above figure (2) shows the mean value of (Domain–2) Psychological well being facets contributing to Quality of life. The positive feelings of inmates tops the list with the mean value of 3.67, Physical image and appearance follow next with the mean value of 3.47, Self esteem follow with the mean value of 3.38, Personal beliefs come next with the mean value of 3.29, Thinking, learning, memory and concentration follow next with the mean value of 3.17, Negative feelings with the mean value of 2.75 was the last facet for quality of life in Psychological domain.

Social Relationship

The figure 3 shows the mean value of (Domain–3) social relationship facets contributing to Quality of life. Inmates' relationships top the list with the mean value of 3.3, Personal relationships follow next with the mean value of 2.97, and Social support with the mean value of 2.85 was the last facet in social relationships of quality of life. Majority of them had not got social support.

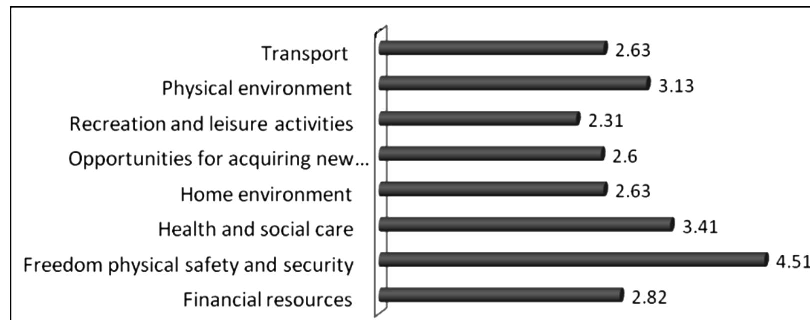
Figure 3
Mean Value of Social Relationship Facets Contributing to Quality of Life



Environment and Living Condition

The figure 4 shows the mean value of (Domain–4) Environment and living condition facets contributing to Quality of life. Freedom, physical safety and security top the list with the mean value of 4.51, Health and social care follow next with the mean value of 3.41, Physical environment follow with the mean value of 3.13, Financial resources follow with the mean value of 2.82, Home environment and Transport follow with the same mean value of 2.63, Acquiring new information follow next with the mean value of 2.60, Recreation and leisure activities with the mean value of 2.31 was the last facet in the quality of life.

Figure 4
Mean Value of Domain-4



Over All Measures

Over all measure of quality of life (Facet 25) was evaluated. Out of 350 inmates, 170 (48.6%) inmates stated that their quality of life was good, 139 (39.7%) inmates stated that neither poor nor good, 18 (5.1%) inmates stated poor and 23 (6.6%) inmates stated that their quality of life was very poor. Over all measure of health satisfaction (facet 26) was evaluated. About half of the inmates, (50% of male inmates and 56% of female inmates) were dissatisfied with their health condition. Those who were neither satisfied nor dissatisfied with their health were 37.4 per cent. Very few inmates (5.7%) were satisfied with their health condition.

Table 1
Distribution of inmates by 2 facets of overall measures

Facet 25 Quality of life	*Frequency*	*%*	*Facet 26 Health satisfaction*	*Frequency*	*%*
Very poor	23	6.6	Very dissatisfied	8	2.3
Poor	18	5.1	Dissatisfied	191	54.6
Neither poor nor good	139	39.7	Neither satisfied nor dissatisfied	131	37.4
Good	170	48.6	Satisfied	20	5.7
Very good	0	0	Very satisfied	0	0
Total	350	100	Total	350	100

Socio-demographic Factors influencing four Domains of Quality of Life

According to table 2, the Age group of 60–69 years had significantly higher mean value in physical (3.6), psychological (3.3), social (3.1) and environmental (3.1) domains, than all other age groups. 90–99 years age group had secured lower mean value in all the domains. Age factor reveals that the p value was less than 0.001. In psychological domain the p value was 0.011. The results of ANOVA revealed that there was a significant difference between four age groups and four domains of quality of life. According to their age, their quality of life differs in all aspects.

Table 2

Mean Values of Four Domains According to the Socio-demographic Factors of Age, Marital Status, Religion, Community and Number of Children

Socio-demographic Factors	*N*	*Mean value of four domains*			
		Physical Capacity	*Psychological well being*	*Social Relationships*	*Environmental Condition*
Age (years) 60–69	91	3.6	3.3	3.1	3.1
70–79	184	3.2	3.3	3.1	3.1
80–89	68	2.4	3.2	2.9	2.9
90–99	7	1.8	3.1	2.4	2.6
P-value	350	0.000**	0.011*	0.000**	0.000**
Marital status Single	133	3.3	3.3	3.1	3.0
Married	28	3.3	3.3	3.1	3.0
Widowed	183	3.1	3.3	3.0	3.0
Separated	6	3.3	3.4	3.2	2.9
P-value	350	0.000**	0.920	0.349	0.650
Religion Hindu	242	3.2	3.3	3.1	3.1
Christian	107	3.1	3.2	3.2	2.9
Muslim	1	2.1	2.7	2.7	2.3
P-value	350	0.065	0.003*	0.060	0.002*
Community FC	35	3.2	3.2	3.1	3.0
BC	73	3.2	3.3	3.0	3.1
MBC	108	3.2	3.3	3.0	3.0

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SC	107	3.1	3.3	3.0	3.0
ST	27	3.1	3.3	2.9	2.9
P-Value	350	0.635	0.425	0.435	0.397
Number of children None	111	3.1	3.3	3.0	3.0
One	75	3.1	3.3	3.0	3.0
Two	21	3.0	3.3	2.9	2.9
Three	10	2.9	3.4	2.8	2.9
Not applicable	133	3.3	3.3	3.1	3.0
P-value	350	0.021*	0.670	0.145	0.785

Note: *Significant at 5% level ($p < 0.05$)

** Significant at 1% level ($p < 0.001$)

It is evident from the results of ANOVA that there is a significant difference between the categories of marital status with regard to the physical domain of quality of life and the p value is <0.001 level. There is no significant difference between psychological well being (p= 0.920), social relationships (p=0.349) and environmental (p= 0.650) domains with the categories of marital status since the p value is greater than 0.05 level of significance.

According to the religious factor the p value is >0.005 with regard to physical and social domains. Hence there is no significant difference between religion and physical capacity of inmates. And also there is no significant difference between religion and social relationship of inmates. But the psychological and environmental domains have significant difference with religion since the p value is <0.005 level. Hence, it is assumed that religion does not impose a change in quality of life of elderly in old age homes.

The table 2 shows the mean value and ANOVA applied between the groups of communities with regard to the 4 domains of WHOQOL-Bref. All the communities have secured the highest mean value in the domain of psychological well being. It is observed that there is no statistical difference between communities and physical (p=0.635), psychological (p=0.425), social (p=0.435), and environmental (p=0.397) domains since the p value is >0.05 level. Based on

the above findings it is concluded that community does not have an impact on quality of life of elderly people living in old age homes.

Inmates, who had three children, have secured highest mean value in psychological domain (3.4). The results of ANOVA revealed that there was no significant difference between the number of children of the inmates with regard to the psychological (p=0.670), social (p=0.145) and environmental (p=0.785) domains since the p value is >0.05. But the p value of physical domain is 0.021. On the whole, number of children of the inmates does not have an impact on their quality of life.

Table 3 reveals that inmates who lived in nuclear family have secured the mean value of 3.1 in social relationship domain. The result of ANOVA revealed that there was no significant difference between the types of family with regard to the physical (p=0.736), psychological (p=0.629), social (p=0.695) and environmental (p=0.501) domains of quality of life since the p value was >0.05 level of significance. This clearly shows that quality of life of the inmates in old age homes are not related to their different family types.

Table 3

Mean Values of four Domains According to the Socio-demographic Factors of Family, Condition of the Spouse, Education, Employment and Past Earnings

Socio-demographic Factors	*N*	*Mean score of four domains*			
		Physical Capacity	*Psychological well being*	*Social Relationships*	*Environmental Condition*
Family Nuclear	190	3.2	3.3	3.1	3.0
Extended	158	3.1	3.3	3.0	2.9
Foster	2	3.0	3.5	2.8	3.1
P-value	350	0.736	0.629	0.695	0.501
Condition of the spouse Dead	183	3.0	3.3	3.0	3.0
With relatives	28	3.4	3.3	3.1	3.0
Same OAH	6	2.9	3.3	2.9	2.9
Not applicable	133	3.3	3.3	3.1	3.0
P-value	350	0.000**	0.912	0.311	0.691
Education No schooling	115	3.1	3.2	3.0	3.0

Cont'd...

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Primary	69	3.1	3.3	3.0	3.0
Middle	35	3.1	3.2	2.7	2.9
High school	36	2.9	3.3	3.1	3.0
College	8	3.4	3.2	3.3	3.3
Others	87	3.3	3.3	3.2	3.1
P-value	350	0.058	0.302	0.000**	0.029*
Employment Unemployed	168	3.1	3.3	3.1	3.0
Self employed	7	3.2	3.3	3.0	3.1
Agriculture	100	3.2	3.3	3.1	3.1
Daily wages	31	3.1	3.3	2.9	2.9
Govt/pvt	34	3.1	3.2	2.7	2.8
Others	10	3.3	3.3	3.0	3.1
P-value	350	0.648	0.755	0.000**	0.072
Past earnings No earnings	168	3.1	3.3	3.1	3.0
1 to 1,000	78	3.1	3.3	2.9	2.9
1,001 to 2,000	75	3.2	3.3	3.1	3.0
2,001 to 3,000	8	3.5	3.3	3.1	3.2
3,001 to 4,000	10	3.4	3.6	3.3	3.3
Above 4,000	11	3.4	3.3	3.3	3.1
P-value	350	0.149	0.034*	0.037*	0.015*

Note: *Significant at 5% level ($p < 0.05$)

** Significant at 1% level ($p < 0.001$)

Inmates whose spouses are living with relatives have secured highest mean value in all the domains. The results revealed that there was no significant difference between the conditions of the spouse with regard to the psychological ($p = 0.912$), social relations ($p = 0.311$), and environmental ($p = 0.691$) domains of quality of life since the p value was > 0.05 level of significance. But there was a significant difference between the conditions of the spouse with regard to the physical capacity of the inmates since the p value was < 0.001 at 1 per cent level of significance (denoted by **).

Inmates who studied up to college and other courses had secured high mean value in all the domains. Particularly in social relationship and environmental condition the mean value was very high. It is evident from the result that there was no significant difference in

physical and psychological wellbeing. But there was a significant difference between the level of education with regard to the social ($p=0.000$) and environmental condition ($p=0.029$) since the p value was less than 0.05 level.

Inmates who worked in government or private companies have secured the least mean value in all the domains. In employment status, no significant difference was found in physical domain of the inmates ($p=0.648$). And there was no significant difference between employment status and psychological domain ($p=0.755$) since the p value was >0.05. The result shows that there was a significant difference in social relationships with respect to employment status of inmates ($p<0.001$). However, no statistically significant difference was found in environmental domain with respect to employment status of inmates.

Inmates who earned above Rs 3,000 to Rs 4,000 have secured higher mean value than other inmates. There was a significant difference between past earning in terms of psychological domain ($p=0.034$), social relationship domain ($p=0.037$), and environmental domain ($p=0.015$) respectively. But there was no significant difference between past earning and physical domain since the p value was >0.05. However, there was a strong statistical difference between past earning and present quality of life of the inmates.

Table 4

Mean Values of four Domains According to the Socio-demographic Factors of Sources of Income, Number of Room-mates, Living Preference, Joining Reason and Staying Years in Old Age Home

Socio-demographic Factors	*N*	*Average Score of Four Domains*			
		Physical Capacity	*Psychological well being*	*Social Relationships*	*Environmental Condition*
Sources of income					
Children	55	3.1	3.4	3.0	3.1
Relatives	61	3.0	3.4	3.2	3.1
Pension	33	3.4	3.4	3.2	3.2
None	200	3.2	3.2	3.0	2.9

Cont'd...

Cont'd...

Savings	1	3.1	3.6	3.3	3.3
No. of room-mates					
P-value	350	0.020*	0.000**	0.002*	0.000**
None	26	3.2	3.3	3.3	3.3
1 to 5	90	3.2	3.3	3.0	2.9
6 to 10	135	3.1	3.2	3.0	3.0
11 to 15	62	3.1	3.3	3.0	3.0
16 to 20	37	3.1	3.4	3.1	3.1
P – value	350	0.473	0.105	0.013*	0.000**
Living preference					
Alone					
With family	100	3.2	3.3	3.0	3.0
Extended family	8	3.0	3.4	3.0	2.9
Old age home	242	3.1	3.3	3.0	3.0
P – value	350	0.611	0.657	0.817	0.672
Joining reason					
Nobody to take care	178	3.2	3.2	3.0	2.9
Children are not willing	105	3.1	3.3	3.0	3.0
Want to live independently	63	3.2	3.3	3.1	3.0
Financial problem	4	3.4	3.3	3.3	3.3
P-value	350	0.304	0.258	0.257	0.358
Staying years					
Less than 1	32	3.6	3.3	3.1	3.0
1 to 5	151	3.4	3.3	3.0	3.1
6 to 10	155	2.9	3.3	3.0	2.9
More than10	12	2.3	3.0	2.7	2.7
P-value	350	0.000*	0.011*	0.038*	0.001*

Note: *Significant at 5 per cent level ($p < 0.05$)
** Significant at 1 per cent level ($p < 0.001$)

Inmates who had not got any sources of income, have secured the least mean value in psychological well being domain (3.2). It is evident from the results (table 5.11) that there was a significant association between sources of income of the inmates and physical ($p = 0.020$), psychological ($p < 0.001$), social ($p = 0.002$) and environmental ($p < 0.001$) domains of quality of life since the p value was < 0.05 level

of significance. These differences were statistically significant. Particularly in psychological and environmental domains the difference was significant at 1 per cent level ($p < 0.001$).

The quality of life of inmates was dependent on the number of room-mates of inmates. In other words, number of roommates of inmates was strongly associated with quality of life of inmates. It is evident from the table 4 that there was a strong association between number of roommates of inmates and environmental condition of the inmates since the p value was ($p < 0.001$) significant at 1 per cent level. But the association in social relationship was ($p = 0.002$) significant at 5 per cent level. In physical and psychological domains there was no statistical difference with respect to number of inmates.

Inmates in old age homes preferred to live either with family or in extended family rather than in old age homes. Majority of them (242 inmates) preferred to live in old age homes. According to statistical difference there was no association between living preference of inmates with physical ($p = 0.611$), psychological ($p = 0.657$), social ($p = 0.817$) and environmental ($p = 0.672$) domains of their quality of life. There was no significant difference in living preference with respect to four domains of quality of life.

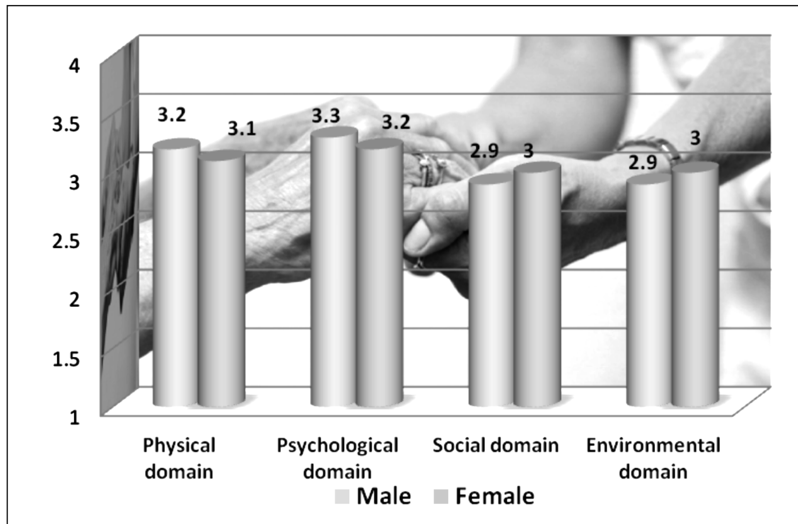
Inmates had joined old age homes for various reasons. The results revealed that there was no statistical difference between the joining reason of the inmates with regard to the physical ($p = 0.304$), psychological ($p = 0.258$), social ($p = 0.257$), and environmental ($p = 0.358$) domains of quality of their life. Hence we can conclude that there is no association between joining reason of inmates and their quality of life.

In old age homes inmates have stayed for many years. The staying years of inmates have association with their quality of life. Table 4 reveals that, there was a strong significant difference between staying years of inmates with regard to physical ($p < 0.001$), psychological ($p = 0.011$), social relations ($p = 0.038$), and environmental ($p = 0.001$) domains of quality of life since the p value was (< 0.05) significant at 5 per cent level. Hence we conclude that there is an interdependence between staying years in old age homes and quality of life of inmates.

Gender and Four Domains of Quality of Life

Figure 5

Comparison between Genders and their Four Domains of Quality of Life



The mean score of physical domain of male inmates (3.2) were compared with the physical domain of female inmates (3.1). The score for psychological domain was 3.3 for male inmates and 3.2 for female inmates. Based on mean score it is revealed that male inmates have got better physical capacity and psychological well being than female inmates.

The male inmates had got a significant lower level of quality of life in the domain of social relationship score (2.9) and environmental score (2.9). But female inmates have secured more mean value in social relationship facet (3.0) and environment and living condition facet than male inmates.

Table 5

Mean Value of 26 Facets and Gender

S. No.	WHOQOL-Bref: 26 Facets	Mean scores			
		Male	*Female*	*T-test*	*Sig*
Physical capacity					
1	Activities of daily living	3.4	3.4	–.546	0.601
2	Energy and fatigue	3.3	3.2	–1.467	0.083
3	Medical substances and aids	2.7	2.4	2.315	0.016
4	Mobility	3.5	3.6	–.874	0.517
5	Pain and discomfort	3.4	3.3	–1.021	0.331
6	Sleep and rest	2.5	2.5	–.682	0.065
7	Work capacity	3.4	3.4	0.369	0.373
Psychological well being					
8	Bodily image and appearance	3.5	3.5	–.152	0.402
9	Negative feelings	2.9	2.7	2.617	0.001
10	Positive feelings	3.7	3.6	–2.084	0.003
11	Self esteem	3.3	3.3	–.639	0.300
12	Personal belief	3.3	3.2	–2.185	0.082
13	Memory and concentration	3.2	3.2	0.561	0.116
Social relationships					
14	Personal relationships	2.9	3.0	–3.775	0.022
15	Inmates relationships	3.2	3.3	–1.040	0.418
16	Social support	2.8	2.8	–2.535	0.194
Environment and living conditions					
17	Financial resources	2.6	2.8	–3.172	0.334
18	Safety and security	4.6	4.5	1.413	0.002
19	Health and social care	3.3	3.4	–1.823	0.007
20	Home environment	2.5	2.6	–1.587	0.058
21	Opportunities for new information	2.6	2.6	0.226	0.011
22	Leisure activities	2.2	2.3	–2.025	0.133
23	Physical environment	3.2	3.3	–.264	0.056
24	Transport	2.5	2.5	0.601	0.026
Overall measures					
25	Quality of life	3.3	3.2	–1.285	0.541
26	Health satisfaction	2.6	2.5	–.037	0.858

This table shows the mean value of 26 facets of WHOQOL-Bref. Physical capacity domain contains 7 facets. In the facets of energy and fatigue, medical aids and pain and discomfort, male inmates have gained more mean scores than female inmates. In mobility facet male inmates have gained less mean scores than female inmates. In the facets of sleep and rest, work capacity and activities of daily living both genders have gained the same mean value.

Psychological well being domain contains 6 facets. In the facets of negative feelings, positive feelings, and personal belief, male inmates have gained more mean scores than female inmates. In the facets of bodily image and appearance, self esteem and memory and concentration both male and female have gained same mean score. Social relationship domain contains 3 facets. In personal relationship facet and inmates' relationship facet male inmates have gained less mean value than female inmates. In social support facet both gender have gained same mean value.

Environmental and living condition domain contains 8 facets. In the facet of safety and security, male inmates have gained more mean score than female inmates. In the facets of financial resources, health and social care, home environment, leisure activities and physical environment, male inmates have gained less mean value than female inmates. In the facets of opportunities for acquiring new information and skills and transport both genders have gained same mean values. Overall measure contains 2 facets. In overall quality of life facet and health satisfaction facet male inmates have gained more mean score than female inmates.

Discussion and Conclusion

Population ageing is a reflection of three basic demographic processes: fertility rates, mortality rates, and migration rates. The life span represents the theoretical and biological limits to the maximum number of years an individual can live. At present, the elderly comprise a higher percentage of total population in the more developed nations and regions of the world than in the less developed nations and regions. Those most likely to be voluntarily or involuntarily institutionalized are those who no longer have a sufficient

degree of physical or mental competence to continue living independently in the community: those who are very old: those who have no families or whose families are unable or unwilling to care for them; those who live where community based support services are unavailable or inaccessible and those who are financially or socially disadvantaged.

Furthermore, once institutionalized, they may become isolated because of language and cultural barriers between themselves, the staff and other residents. They may also receive less attention and care from staff. At the same time, the increasing size of the elderly population has led to an increase in the number and variety of institutions that are available. These are established with funds from either the private or the public sector and receive government subsides of some sort; Few institutions for the elderly are still operated by religious or voluntary groups, largely because of increasing expenses. Most facilities for the elderly are now operated as profit oriented enterprises. As a result, the nature of the physical and psychological environments and the quality of care can vary greatly from institution to institution. A major factor that determines the quality of care is accountability.

The status of the resident can also influence the quality of care. Moreover, in communities with a shortage of institutionalized space, overcrowding often results. This further lowers the quality of care, and the number of viable housing alternatives decreases, except for the most financially and socially advantaged elderly who can pay for better care in private housing. The results suggest that while the physical ties of the elderly men and women with their adult children have weakened their psychological and emotional bond with them remains strong. This is reflected by the fact that majority of the inmates still have the view that children are the main support for parents in old age.

Old age home care is the need of the hour. There is also a need for closer supervision in the old age homes. Most of the old age homes are full to the capacity and they maintain a waiting list for taking the new elderly. In fact, death of an elderly in an old age home will create a chance for another elderly. From the results of the study it is

concluded that majority of the inmates had been dependent economically, neglected by their relatives, living alone and suffering from various health problems.

Recommendations

Cultural activities should be organized to make the elderly people happy, active and healthy. Entertainment programmes should be arranged with the help of school and college students. Majority of inmates needed visual, hearing, dental and walking aids. These should be provided by the old age homes. A doctor or a nurse should be available in old age home so that they can get medical help in an emergency. Old age homes should have ambulance facility for transport so that in emergency they can reach the hospital soon. Government should provide free medical treatment and medicines to the inmates and should provide free electricity and water supply to the free old age homes. Apart from this, younger generation should give respect and care to the elders and visit the old age homes.

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Assessment of Nutritional Status in Older Adults at an Old Age Home in Urban Varanasi

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ABSTRACT

Poor nutrition is not a natural concomitant of ageing, older adults are at risk for malnutrition due to physiological, psychological, social, dietary, and environmental risk factors. Weight loss in older adults is often associated with a loss of muscle mass and can ultimately impact their functional status. Malnutrition in older adults is associated with complications and premature death. The progression to malnutrition is often insidious and often undetected. The purpose of this study was to find out the nutritional status and the prevalence of malnutrition of 89 elderly inmates (age 60 and above) of both the sexes (Male= 47 and Female=42) living in an Old age home in Urban Varanasi. The Mini Nutritional Assessment (MNA) scale was used to assess the nutritional status of these inmates. Data analysis was done by using Microsoft excel 2007. Chi square test was applied for statistical analysis. It was found out that 40.44 per cent inmates were malnourished and about 17.97 per cent were at risk of malnutrition. Neuro-psychological issues and psychological stress were not a major concern. Only 4- and 6 per cent inmates complained of such problems. The p value (0.27) shows that there is no significant relationship between gender and the status of malnourishment. On the basis of these findings it may be concluded that the older persons

of this sample are at an increased risk of inadequate diet and malnutrition and the older population living in such conditions are more at such risk. Inadequate diet and malnutrition are associated with a decline in functional status, impaired muscle function, decreased bone mass, immune dysfunction, anemia.

Key words: Nutrition, Malnourished elderly, MNA scale, Elderly

Older persons are particularly vulnerable to malnutrition. Biological ageing leads to inadequate nutritional intake leading to malnutrition and in some cases it results in impaired body functions like the bone health, immune function, sensory aspects like vision and hearing. It further leads to sarcopenia and reduced cognitive performance. All the impaired body functions affect the day to day activities of the individual, affecting their quality of life and making them dependent on others for their care.

Moreover, attempts to provide them with adequate nutrition encounter many practical problems as their nutritional requirements are not well defined. Since both lean body mass and basal metabolic rate decline with age, an older person's energy requirement per kilogram of body weight is also reduced. Moreover, the process of ageing also affects other nutrient needs. For example, while requirements for some nutrients may be reduced, the requirements for other essential nutrients may in fact rise in later life. Degenerative diseases such as cardiovascular and cerebrovascular disease, diabetes, osteoporosis and cancer, which are among the most common diseases affecting older persons, are all diet-affected. Micronutrient deficiencies are often common in elderly people due to a number of factors such as their reduced food intake and a lack of variety in the foods they eat.

Inadequate nutritional intake and a fragile condition in elderly people may lead to increases in morbidity and mortality. A general nutritional status and physical activity are positively associated with a decline in functioning, followed by an increase in dependency in performing activities of daily routine.

The purpose of this study was to assess the prevalent status of malnutrition in the inmates of an old age home.

Method

Sample

Out of 95 elderly inmates 89 inmates of both the sexes (Male=47, female=42) of old age home in urban Varansi near Assi ghat, age varying from 60 and above and consenting to participate in this study, were included in this study. In this old age home elderly persons come voluntarily from different parts of the country for *kashiwas* (salvation after death). *This cross sectional* study was conducted for two months i.e. January and February 2015. The study was approved by the Ethical Committee at the Institute of Medical Sciences.

Tool of Study

The Mini Nutritional Assessment (MNA) scale was used to assess the nutritional status among the inmates. The MNA (Bruno Vellas, *et al*., 1999) is a well validated nutrition screening and assessment tool that can identify geriatric patients of age 65 and above who are malnourished or at risk of malnutrition. The scale comprises of 18 questions related to the various aspects of health.

The MNA (Mini Nutritional Assessment) has been an extensively used method to identify risk of malnutrition in the elderly and in those that may benefit from early intervention. The MNA is a simple, low cost and non-invasive method that can be done at bedside. Added MNA scores allow one to screen the elderly who have an adequate nutritional status, those who are at risk of malnutrition and those who are malnourished. The MNA consists of anthropometric and global indicators, including information on eating patterns and self-perception of health, such as: reduced food intake; weight loss of >3 kg body weight; mobility, bed- or chair-bound; psychological stress; neuropsychological problems; body mass index; inability to live independently; taking >3 prescription drugs; having pressure sores or skin ulcers; number of full meals eaten per day; consumption of high-protein foods; consumption of fruits and vegetables; amount of liquids consumed per day; inability to feed self; difficulty in self-feeding; self-view of nutritional status; self-view of health status; mid-arm circumference <21 cm; and calf circumference <31 cm . The tool has been successfully used to assess the nutritional risk of elderly who live independently, receive home care services or are

institutionalized, and of patients who are chronically ill, frail, have Alzheimer's disease or cognitive impairment. It has been demonstrated that the sensitivity of this scale is of 96 per cent, the specificity is of 98 per cent and the prognostic value for malnutrition is of 97 per cent. This method has been broadly used among the geriatric population and a higher prevalence of malnutrition has been associated with the elderly most in need of care.

A questionnaire was also administered to personally get general information about the subjects of the study. The calf and mid arm circumference were measured using a standard inch tape.

On the basis of the scores obtained the people were characterized as malnourished, at risk of malnourishment or normal.

Results and Discussion

Table 1

Table showing the Age Distribution of Elderly at the Old Age Home. (n=89)

Categories	*No.*	*%*
Young old (65–75)	40	44.9
Old old (76–85)	30	33.7
Very old (>85)	19	21.3

Around 45 per cent elderly were in the age group of 60 to 75 while 21.3 per cent were above 85 years of age.

Table 2

Table Showing Different Variables with their Frequency Distribution (n=89)

Variables	*Score (n=89)*					
	0		*1*		*2*	
	No.	*%*	*No.*	*%*	*No.*	*%*
Appetite	36	40.44	18	20.22	35	39.30
Mobility	16	17.90	29	32.5	44	49.45
Neuro-psychological problems	4	4.40	8	8.9	77	86.56
Psychological stress	6	6.74	Not applicable		83	93.25

Cont'd...

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	Score (n=89)							
	0		1		2		3	
	No.	%	No	%	No	%	No.	%
Weight loss	36	40.44	8	8.9	12	13.48	33	37.07
BMI	37	41.57	9	10.13	7	7.85	36	40.44

On the basis of the data presented in the table no.2 we find the distribution of various variables in the MNA scale, the loss of appetite was found in 40 per cent inmates, mobility was affected from mild to severe extent in 35 per cent individuals, Neuro-psychological issues and psychological stress were not a major concern. Only 4 and 6 per cent inmates respectively complained about such problems.

About 40 per cent inmates had weight loss more than 3 kg in the last three months. BMI less than 19 was found in 42 per cent inmates.

Table–3

Table Showing Frequency of Physical Measurements in Geriatric Adults (n=89)

Physical Measurements		
Calf Circumference	*No.*	*%*
$<$ 21cm	34	38.20
21–22cm	18	20.22
$>$22cm	37	41.57
Mid Arm circumference		
$<$31cm	46	51.68
$>$31cm	43	48.31

The above table shows that the Calf circumference did not show any relation with regard to malnutrition because many patients with calf circumference less than 21cms had normal BMI. Similarly mid arm circumference was also not of much help. Although mid upper arm circumference could be reliably measured, it has poor validity and is thus unlikely to be a good predictor of clinical outcome.

Table 4

Table Showing the Relationship between Gender and Nutritional Status

Gender	*MNA*		*Total*
	Malnourished or at risk	*Normal nutritional status*	
Male	30	17	47
Female	22	20	42
Total	52	37	89

χ^2 – 1.196, p – 0.27

The p value (0.27) shows that there is no significant relationship between gender and the status of malnourishment

Table 5

Table showing Nutritional Status of Inmates of Old Age Home (n=89)

Nutritional Status	*Total*	
	No.	*%*
Normal nutritional status	37	41.57
At risk of malnutrition	16	17.97
Malnourished	36	40.44

Table 5 shows that 41.57 per cent inmates had normal nutritional status according to the MNA examination; about 40.44 per cent were malnourished.

Table-6

Table Showing Reasons for Malnourishment or at Risk of Malnourishment in the Inmates (n=53).

Reasons for Malnourishment or at Risk of Malnourishment	*Total*	
	No.	*%*
Lack of nutritional knowledge	35	66.1
Physical disability/illness/loss of appetite	5	9.4
Lack of financial resources	7	13.2
Mental/psychological illness	5	9.4

The above table indicates that the main reason for malnutrition was the lack of adequate nutritional knowledge (66%). The inmates were given good food and were taking the diet full stomach but they were still malnourished as they were not taking a balanced diet.

As it has been already discussed that the older people are at an increased risk of inadequate diet and malnutrition, and the rise in the older population will put more patients at risk. Inadequate diet and malnutrition are associated with a decline in functional status, impaired muscle function, decreased bone mass, immune dysfunction, anemia.

Malnutrition is a common problem in institutionalized elderly and has many different causes. Inadequate nutritional intake is a cause, often observed. The number of old age homes are increasing but the quality of institutional care given at the old age homes also should be evaluated and monitored periodically . The frequencies of at risk of under nutrition (57.9%) and well nourished (42.1%) in our population were within the range presented in the literature.

With over 40 per cent malnutrition found in this study a weekly visit of a nutritionist is a must at any old age home to prepare or modify the mess/canteen menu by adding food items rich in vital micronutrients and vitamins in the diet pattern. Each elderly should be prescribed a diet plan rich in all the essential nutrients by the dietician attached to the old age home. Periodic nutritional classes should be undertaken to continuously counsel the inmates regarding the importance of healthy eating.

A registered medical practitioner should be attached with the old age home on regular basis for periodic health check up. Care takers should be arranged by the old age home or the family members for the elderly. I would like to recommend that all the old age homes should be visited by fruit and vegetable sellers or the old age homes should have fresh fruits and vegetables in the dinning mess so that the elderly can have access to them easily. Moreover every old age home should have the nutritional assessment of the inmates every 3 months using this MNA scale so that the health of the elderly can be monitored periodically.

Nutritional counselling, complete nutritional assessment with biochemical parameters, 3-day record of food intake and

anthropometric values should be monitored for the malnourished. The others in the at risk category and well nourished should have regular follow up of weight and MNA.

The above viewpoints should be kept in mind before Government, the NGO's or the civil society members plan to open old age homes. The existing old age homes should consider these points so that the inmates can lead a healthy life.

The MNA has been used in hundred of studies in a wide range of different settings and in many countries. This previous work shows that MNA is an accurate assessment tool for nutritional problems, and is highly correlated with both clinical assessment and nutritional status. The MNA Scale has been well validated, easy to use and a very cost effective screening tool to identify and monitor patients before complications arise.

Reference

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Family and Intergenerational Relationships of the Institutionalized Elderly in Punjab

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ABSTRACT

The present paper attempts to offer some empirical evidences for understanding and explaining the intergenerational relations of 311 (Male=186 and Female=125) randomly selected institutionalized elderly, age varying from 60 years and above. residing in different old age homes of Punjab state. The intergenerational relationship of elderly with their sons, grandchildren and daughters-in-law before and after their institutionalization was studied. These institutionalized elderly were interviewed individually. Analysis of responses of these subjects revealed that before their institutioalinsation, most of the elderly had face to face interaction with their sons and grandchildren, but after being shifted to the old age homes the face to face interaction was replaced with more telephonic conversation. In case of majority of the elderly, their interaction with their daughters-in-law both face to face and telephonic decreased after coming to the old age homes. Further, the respondents also revealed the reasons for coming to old age homes.

Key words: Institutionalized Elderly, Inter-generational Relations, Old Age Home

In India, family is the most important institution for supporting aged persons in their advanced age. The Indian family, like most

families in oriental cultures, is considered to be strong, well knit, resilient and enduring. However, heterogeneity and diversity are the characteristics of Indian families. There are regional and cultural variations in family structure and functioning. The norms and values related to family life vary according to religion, caste, social class and residential patterns (Dhruvarajan, 1988). In the traditional Indian society, the most common type of living arrangement for the elderly is to live within multi-generational extended families including one or more adults, children, grand children and other kin. The aged in these societies received unparalleled sense of honor, decision –making responsibilities in the economic, political and social activities of the family (Batra and Bhaumik, 2007). But in the last few decades, there are various forces that affect the process of change more forcefully. These include the impact of industrialization, urbanization, technologies change, education, globalization, increasing entry of women into workforce, growing individualism, migration of younger to other cities and abroad, acute paucity of accommodation in urban areas, disintegration of joint family and acceptance of small family norms, etc. All these factors have contributed, to changes in the intergenerational familial relations.

The parent-child relationship may pass through stages of subordination, equality and dominance. The later relationship may occur if the parents experience a serious loss of health and economic status in the later years, thereby necessitating a reversal to child like dependent status. In general, a parent involves in a reciprocal relation with children throughout the life cycle. This type of lineal interaction can vary in frequency, quality and type, depending upon the age, interests and needs of the two generations (Kumar, 1996). Aged persons residing in the old age homes are invariably not happy and they expect that their children and relatives should come and interact with them frequently, thereby providing emotional support if not financial help (Mohanty, 1997). Nevertheless, culturally prescribed notions about duties and obligations continue to play a role in family relationships. A balance between normative expectations and personal goals and circumstances is a source of complexity in family interactions. Family sociologists have become increasingly aware of the challenges of incorporating the complexity of intergenerational relationships in theory

and empirical research. One of these challenges is to investigate family conflict as well as family solidarity (Bengtson, *et al*., 1996). Along the same line, Connidis and McMullin (2002) argue that there is a need to pay attention to intergenerational ambivalence, which they view as competing structurally patterned demands that are experienced by parents and their adult children in their interactions with one another.

In India, still a higher proportion of elderly lives with their families. Within the family, there are changes in both composition and quality of interactions among the members. The generation gap is widening due to fast changing lifestyles, globalization, migration of young and influence of diverse ideologies. There are evidences that inter-generational relations are undergoing transitions due to social and cultural changes. Teenagers specially perceive their grandparents in a different way (Devi, Gayatri 2004). Living arrangements highly influenced the intergenerational interaction between the elderly within their family.

Family is the basic institution as it provides an environment for emotional, social, economic and health support in old age. But, the reality tends to vary from this perception. Changing intergenerational relations in later life are forcing elderly to look for institutional support. Today, the institutionzation is viewed as the second next best option considered by the elderly, so they are searching for old age homes as an alternative caring pattern and there is also an increasing tendency to move into their own age *cohort* i.e. old age home. Old age homes are rapidly growing and providing the much needed care and facilities which the elderly feel they were deprived of by their families or other relatives. The question that arises is the attitude of the elderly to these institutionalized settings in the last phase of their life. Who shifts to the old age homes? What brings elderly to old age homes? What type and frequency of interaction the elderly have with their sons, daughters-in-law and grand-children before and after being shifted to the old age homes? Do they maintain their relations with their family members after having moved to the old age homes? Keeping these questions in view the following study was conducted on those inmates who were staying in different old age homes in different districts of Punjab state.

Those studies which has been conducted on old age homes, mainly stressed on socio-economic characteristics, reasons for shifting to old age homes, quality of life and satisfaction in old age institutions, but very few studies have focussed on family relationships in detail. Therefore, in the present study an attempt has been made to know the intergenerational relationships of the institutionalized elderly before and after their institutionalization.

Some studies has been done on old age homes and their results shows that most of the inmates came to stay in the old age home because there was nobody to take care of them or lack of proper care for them within the family set-up. Majority of the inmates are happy about their stay in old age homes and the services rendered and also stated that the old age home as the best place to live in old age and they liked to continue to live in these institutions, till they die. (Dandekar 1996. Rajan, Mishra and Sarma, 1999 and Rani, 2001)

In another study among the old age homes of Kerala, Sreevals and Nair (2001) concluded that about half of the institutionalized elderly had no children and the other half of the inmates joined old age homes due to family problems such as quarrel with sons and daughter-in-laws or other relatives. Further the major findings of this study reveal that most of the inmates were females in the age group 60–75 years. Majority of the inmates were satisfied in the old age home.

Ramamurti (2001) has surveyed institutions for the elderly in different regions of Andhra Pradesh. His finding showed that most of the inmates came to old age home due to lack of money or care within family. The inmates had strained relationships with their children. A few had expressed that it is far better to stay in an old age home, where they are free of the teasing home environment.

In a study of institutionalized elderly in Punjab, Sandhu and Arora (2003) concluded that inmates are fully satisfied with their stay in the old age homes in Amritsar District. The inmates are enjoying their institutional life. They did not feel bad about institutionalization, rather they expressed their opinion that more old age homes are needed and society should make arrangements for institutionalization of elderly. This study also reveals that the most

commonly stated reason by the inmates for shifting to old age home was conflicting relations with their sons and daughters-in-law.

Das and Shah (2003) conducted a study on institutionalized elderly in Gujarat. Their studies indicated that one third of the elderly have stated that they chose such an arrangement due to familial conflict. Thus, the circumstances compelled the elderly to move out to such impersonal arrangements, where they are struggling to make a new meaning of their lives, seek solace and comfort in age mates, adjust to the discipline of institutional living and to unfamiliar living arrangements. The study also found that majority of the inmates was satisfied with the services provided to them and with the care taking of the staff.

Bansod and Paswan (2006) conducted a study in Amravati district of Maharashtra and concluded that most of the elderly in the old age home were from rural background, illiterate, widowed and were economically dependent. The findings showed that many of the elderly left home due to neglect by their children and relatives, while the majority of them adopted old age home as there was no one to look after them. Almost half of the inmates felt that staying at old age home was far more peaceful than staying with families.

Mishra (2009) conducted a qualitative study of inmates of three old age homes in Delhi. The study reveals that most of the inmates were spouseless, having bad relations with their family member financial crisis being the main cause of conflicts. Among the inmates most of them were females. Further, it concluded that no one was highly satisfied with their present life, because they want to remain integrated with the society but the society segregates them. That is why they are not enjoying their life while living in the old age home.

In a study of institutionalized elderly in Jalandhar city, Isha (2009) studied that majority of the elderly had more close relations with their daughters as compared to their sons. Her study also revealed that although elderly had bad/conflicting relations with their sons but still they prefer to pass on their property to their own sons rather than their daughters. Further, study also shows that most of the elderly were satisfied with the institutional facilities and services being provided to them in old age homes and also do not want go back in their families.

A study has been conducted by Kaur (2009) on institutionalized elderly in Punjab and Chandigarh. She studied supportive/exchange relationships in personal, advisory and financial terms between elderly and their married sons. Her study reveals that majority of the elderly provide more help to their sons though they get less assistance from their sons. Further, the study also concludes that the prominent reasons for shifting to the old age homes was that there nobody to look after the elderly.

Bharti (2010) in her study conducted on institutionalized elderly of Hyderabad city, found out that majority of the inmates (as reported by them) did not have economic security, and were financially dependent on their children for their daily needs. The study further, showed the inmates were not getting any personal care back in their own families and this was the main reason of shifting to old age home. The author also observed that there were some elderly who were willing to play an active role by engaging themselves in some work despite being old.

Objectives

The objectives of the present study were:

1. to find out the condition of prior living arrangements of the respondents.
2. to identify the various reasons which drove the elderly away from the families to old age homes? and
3. to study the inter-generational interaction pattern of the elderly inmates of this study with their sons, daughters-in-law and grand-children, before and after their institutionalization.

Methodology

The universe of the present study comprised the institutionalized elderly in Punjab State. First of all an effort was made to compile a list of the existing old age homes in Punjab. The data were collected from elderly living in twenty-five old age homes in Punjab state. Fifty per cent of residents from each old age home (numbers 311) were randomly selected and interviewed individually with the help of an interview schedule.

Findings and Discussion

Socio-Economic Characteristics

Table 1

Brief Profile of the Institutionalized Elderly

Age (yrs.)	*No. of Respondents*	*Percentage*
60–70	177	56.91
70–80	86	27.65
80–90	38	12.22
90 +	10	3.22
Total	311	100.00
Sex		
Male	186	59.81
Female	125	40.19
Total	311	100.00
Area		
Rural	204	65.59
Urban	107	34.41
Total	311	100.00
Caste		
Upper caste	194	62.38
Intermediate caste	62	19.94
Lower caste	55	17.68
Total	311	100.00
Religion		
Sikh	141	45.34
Hindu	165	53.05
Others	5	1.61
Total	311	100.00
Marital Status		
Never married/single	39	12.54
Married	71	22.83
Widowed	194	62.38
Divorced/separated	7	2.25
Total	311	100.00
Education		
Illiterate	106	34.08
Up to middle	95	30.55

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Up to10+2	65	20.90
Graduate or above	45	14.47
Total	311	100.00
Occupation		
Agriculturist	17	5.47
Govt. job	68	21.86
Pvt. Job	32	10.29
Petty jobs	115	36.98
N/A	79	25.40
Total	311	100.00

Above table 1 depicts the demographic and socio-economic aspects of those residing in different old age homes in Punjab state, it can be concluded that a majority of them fall in the 'young old category' of 60–70 years. Most of them are males, hail from rural areas and belong to Punjab state. Majority of them are widowed, belong to Hindu religion and are from upper castes, are illiterate and were earlier involved in petty jobs.

After analyzing the background characteristics of the institutionalized elderly, further information was also gathered about their family composition which will help us to understand about their institutionalization in a better way. Let us see the distribution of the elderly accordingly to their number of children by gender.

Family Composition

Table 2

Distribution of Inmates According to their Number and Gender of Children

Response Category	*No. of Respondents*	*Percentage*
No Child	8	2.57
Only Sons	19	6.11
Only Daughters	12	3.86
Both Sons and Daughters	231	74.28
N/A	41	13.18
Total	311	100.00

Table 2 reveals that nearly 85 per cent of the institutionalized elderly had children, 74.28 per cent had sons and daughters, while, 6.11 per cent had only sons and 3.86 per cent had only daughters. Another, 2.57 per cent of them had no children and remaining 13.18 per cent of them were un-married. Thus, it can be concluded that the majority of the inmates of old age home have families and children i.e. both sons and daughters.

Further, in order to understand the relations of the elderly with their families, it is important to study their earlier living arrangements. Living arrangement reflects upon the intergenerational relations of an individual. The living arrangements of elderly also have significant impact on the well being of elderly.

Prior Living Arrangements

The living arrangements for the elderly are often considered as the basic indicator of the care and support provided by the family. Rajan *et al.,* (1999) explained living arrangements in terms of the type of family in which the elderly live. The earlier living arrangements of the institutionalized elderly under study are as follows:

Table 3

Distribution of Respondents According to their Prior Living Arrangements

Response Category	*No. of Respondents*	*Percentage*
Living alone	27	8.68
Only with spouse	10	3.22
With Sons and spouse	61	19.61
With married sons	189	60.77
With Married daughters	5	1.61
With Siblings and their family	12	3.86
Other Old age home	7	2.25
Total	311	100.00

As given in table 3, a large majority i.e. 60.77 per cent of the respondents were living with their married sons before shifting to the old age homes. While, 8.68 per cent of the inmates were living alone followed by 3.22 who were living with their spouse, 19.61 per cent of them were living with their married sons and spouse, only 1.61 per cent of them were staying with their married daughters, 3.86 per cent of them were residing with their siblings and their family and

remaining, 2.25 per cent of them were living in other old age homes. Thus, it can be concluded that a significant percentage of elderly who came to these old age homes had lived with their married sons and their families prior to moving into the old age homes. After analyzing their prior living arrangement status, the reasons for shifting to the old age homes have also been analyzed.

Reasons for Shifting the Old Age Home

Elderly do not like to leave their families and their first choice is always to stay with their families. But sometimes, circumstances force them to leave their families and then they opt to live in an old age home. Let us know the prominent causes for shifting to the old age homes.

Table 4

Main Reasons for Shifting the Old Age Home

Major Reasons	*No. of Respondents*	*Percentage*
Strained relations with sons/daughters-in-law	105	33.76
Conflict with spouse	7	2.25
Children settled in abroad	8	2.57
Only having daughters	12	3.86
Economic reasons	69	22.19
Un-married	27	8.68
Childless	10	3.22
Do not want to be burden on family	15	4.82
Feeling of loneliness	49	15.76
Personal freedom	9	2.89
Total	311	100.00

The respondents cited a variety of reasons for coming to the old age homes. Table 4 reveals their reasons for shifting to the old age homes are: strained relations with their sons/daughters-in-law (33.76), Conflict with spouse (2.25%), children settled abroad (2.57%), Only have daughters (3.86%), economic reasons (22.19%), unmarried and had no family (8.68%), childless (3.22%), do not want to be burden on family (4.82%), feeling of loneliness (15.76%) and personal freedom (2.89%). Thus, it is clear that the main reason that emerged was the strained relations with sons/daughters-in-law which forced majority of elderly to stay in old age home. Here, it is important to note that the

elder's idea or attitude about their institutionalization have changed now. Now, they consider old age homes as an option or they find this institutional living as a way of alternative life setting.

Family Relationships of the Institutionalized Elderly

The relations of the institutionalized elderly with their family members were studied in terms of their intergenerational interactional pattern.

Inter-generational Interactions in Later Life

Intergenerational relationships are determined by a variety of factors and intergenerational interaction is one of the most important factors which determine the quality of such relationships. One important aspect of intergenerational relations involves the type and frequency of interaction of the elderly with other members of different generations. In the present study, interactional pattern of elderly (with their sons, daughters-in-law, grandchildren and daughters) was assessed on the basis of exchanging views on various issues, interaction during family activities/face to face inter-action/courtesy visits and communication through phone. Data in the proceeding analysis reflects the frequency and pattern of interaction before and after the institutionzation. This will help us to understand their present inter-generational relations and the change in these relations after institutionzation.

Relations with Sons

Table 5

Frequency and Types of Interactional Pattern Provided by Sons

Interactional Pattern	*Sons*									
	Before					*After*				
	*QO**	*S**	*N**	*NA**	*Total*	*QO**	*S**	*N**	*NA**	*Total*
Exchanging views on various issues	43.09 (134)	23.47 (73)	13.83 (43)	19.61 (61)	100.00 (311)–					
Interaction during family activities	47.59 (148)	20.90 (65)	11.90 (37)	19.61 (61)	100.00 (311)–					

Cont'd...

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Interactional Pattern	Before QO*	Before S*	Before N*	Before NA*	Before Total	After QO*	After S*	After N*	After NA*	After Total
Face to face interaction/cour tesy visits	–	–	–	–	–	38.91 (121)	21.54 (67)	19.94 (62)	19.61 (61)	100.00 (311)
Communication through phone	–	–	–	–	–	45.34 (141)	18.65 (58)	16.40 (51)	19.61 (61)	100.00 (311)
Total	45.34 (282)	22.19 (138)	12.86 (80)	19.61 (122)		42.12 (262)	20.10 (125)	18.17 (113)	19.61 (122)	

QO*-Quite often, S*=Sometimes, N*=Never, Not Applicable*

Data in the above table 5 (a) reveals that majority of the elderly (i.e. 45.34%) used to interact with their sons quite often before being shifted to old age homes. Whereas, 22.19 per cent of the elderly used to interact sometimes, while, 12.86 per cent of them were not having any type of interaction with their sons. The question was not applicable to 19.61 per cent of elderly because either they were issueless, un-married or not having sons.

After the institutionalization of the aged parents, out of the total sample 42.12 per cent of them are having interaction quite often with their sons. Further, data shows that 20.10 per cent of the elderly are having interaction only sometimes with their sons and 18.17 per cent of them are never being interacted by their sons.

Thus, it can be concluded from the above table that there is change in both the type of interaction and frequency of interaction after institutionalization. Face to face interaction in the form of exchange has reduced and interaction through telephonic has increased. Similarly, some decrease in frequency of interaction is also noticed.

Daughters-in-Law

Table 6

Frequency and Types of Interactional Pattern provided by Daughters-in-law

Interactional Pattern	*Daughters-in-Law*									
	Before					*After*				
	*QO**	*S**	*N**	*NA**	*Total*	*QO**	*S**	*N**	*NA**	*Total*
Exchanging views on various issues	26.37 (82)	17.04 (53)	36.98 (115)	19.61 (61)	100.00 (311)	–	–	–	–	–

Cont'd...

Cont'd...

Interaction during family activities	24.76 (77)	14.79 (46)	40.84 (127)	19.61 (61)	100.00 (311)	–	–	–	–	–
Face to face interaction/court esy visits	–	–	–	–	–	19.94 (62)	18.33 (57)	42.12 (131)	19.61 (61)	100.00 (311)
Communication through phone	–	–	–	–	–	22.19 (69)	14.47 (45)	43.73 (136)	19.61 (61)	100.00 (311)
Total	25.56 (159)	15.92 (99)	38.91 (242)	19.61 (122)		21.06 (131)	16.40 (102)	42.93 (267)	19.61 (122)	

QO* -Quite often, S*=Sometimes, N*=Never, Not Applicable*

While analyzing the interactional pattern of the elderly with their daughters-in-law, table 6 (b) shows that 25.56 per cent of the elderly interacted with their daughters-in-law quite often in the form of exchanging views or during family activities before shifting to old age homes whereas, 15.92 per cent of the elderly interacted with their daughters-in-law sometimes. The remaining, 38.91 per cent of them reported that they never interacted with their daughters-in-law.

After moving to the old age institutions, the data shows that 21.06 per cent of the elderly reported that they are having interaction with their daughters-in-law quite often and 16.40 per cent of them are those who said that they are having interaction with their daughters-in-law sometimes. On the other hand, 42.93 per cent of them are those who are not having any type of interaction with their daughters-in-law.

Thus, change can be observed in the kind of interaction and frequency of interaction i.e. face to face interaction and telephonic interaction between the aged and their daughters-in-law after coming to the old age homes.

Grandchildren

In order to find out the relations between the aged and their grandchildren, it is essential to study the frequency and types of interactional pattern. Let us have a look at the following table:

Table 7

Frequency and Types of Interactional Pattern Provided by Grandchildren

Interactional Pattern	*Grandchildren*									
	Before					*After*				
	*QO**	*S**	*N**	*NA**	*Total*	*QO**	*S**	*N**	*NA**	*Total*
Exchanging views on various issues	41.16 (128)	22.19 (69)	17.04 (53)	19.61 (61)	100.00 (311)–					
Interaction during family activities	45.99 (143)	23.47 (73)	10.93 (34)	19.61 (61)	100.00 (311)–					
Face to face interaction/courtesy visits	–	–	–	–	–	34.73 (108)	26.69 (83)	18.97 (59)	19.61 (61)	100.00 (311)
Communication through phone	–	–	–	–	–	38.91 (121)	24.76 (77)	16.72 (52)	19.61 (61)	100.00 (311)
Total	43.57 (271)	22.83 (142)	13.99 (87)	19.61 (122)		36.82 (229)	25.72 (160)	17.85 (111)	19.61 (122)	

QO*-Quite often, S*=Sometimes, N*=Never, Not Applicable*

Table 7 (c) shows that majority of the elderly i.e. 43.57 per cent were interacting with their grandchildren quite often before being shifted to the old age homes while 22.83 per cent of them were having interaction sometimes with their grandchildren and 13.99 per cent of them were those who never had interaction with their grandchildren, before institutionalization.

After the institutionzation of the aged, 36.82 per cent of the elderly still interact with their grandchildren quite often either face to face or telephonically. Whereas 25.72 per cent of them are having interaction sometimes, 17.85 per cent are those who never interact with their grandchildren.

Thus, it shows both decrease in frequency of interaction and change in pattern of interaction.

Married Daughters

The respondents were asked about their interaction with their married daughters both before and after they shifted to the old age homes. In this context, different types of questions were framed such

as face to face interaction/courtesy visits and telephonic calls, before and after the institutionalization.

Table 8

Frequency and Types of Interactional Pattern Provided by Daughters

Interactional Pattern	*Daughters*									
	Before					*After*				
	*QO**	*S**	*N**	*NA**	*Total*	*QO**	*S**	*N**	*NA**	*Total*
Face to face interaction/ courtesy visits	34.08 (106)	28.30 (88)	15.76 (49)	21.86 (68)	100.00 (311)	42.12 (131)	24.12 (75)	11.90 (37)	21.86 (68)	100.00 (311)
By making phone calls	47.27 (147)	22.19 (69)	8.68 (27)	21.86 (68)	100.00 (311)	50.16 (156)	20.26 (63)	7.72 (24)	21.86 (68)	100.00 (311)
Total	40.68 (253)	25.24 (157)	12.22 (76)	21.86 (136)		46.14 (287)	22.19 (138)	9.81 (61)	21.86 (136)	

QO*-Quite often, S*=Sometimes, N*=Never, Not Applicable*

Table 8(d) reveals that before institutionalization more than 40.68 per cent of the elderly were having interaction with their married daughters quite often whereas 25.24 per cent of the aged parents interacted sometimes and 12.22 per cent of them never had any interaction with their married daughters. The question was not applicable to 21.86 per cent of elderly because either they were issueless, un-married or not having daughters.

After shifting to the old age homes, 46.14 per cent of the elderly reported that they were having interaction with their married daughters quite often, while, 22.19 per cent of the elderly interacted sometimes and 9.81 per cent of them never interacted with their daughters.

Thus, it can be concluded that the frequency and types of interactive pattern (face to face interaction and by making phone calls) of institutionazled elderly with their married daughters has increased after coming to their old age institutions.

Conclusion

On the basis of the preceding analysis it can be concluded that a majority of the elderly fall in the 'young old category' of 60–70 years.

Most of them are males, hail from rural areas and belong to Punjab state. Majority of them are widowed, belong to Hindu religion and are from upper castes, are illiterate and were earlier involved in petty jobs. As regards their children's information, the study shows that majority of the inmates of old age home have families and children i.e. both sons and daughters. A large proportion of elderly lived with their married sons and their families before being moved into the old age homes. Further, as far as intergenerational relations are concerned, study reveals that in majority of cases face to face interaction in the form of exchange has reduced and interaction through telephonic has increased (between elderly and their sons and grandchildren) after institutionalization. In case of majority of the elderly, their interaction with their daughters-in-law both face to face and telephonic has decreased after coming to the old age homes. Furthermore, it can also be concluded that the frequency and types of interactive pattern (face to face interaction and by making phone calls) of institutionazled elderly with their daughters has increased after coming to their old age institutions. Interaction pattern of the elderly with their family members cannot be interpreted depending on the parents bond of kinship or affection; it may be possible on the basis of frequency of the visit with children to their institutionalized elderly parents. Furthermore, study also shows that most of the inmates had strained relations with their family members which is the major reason, that forced them to stay in old age home.

Intergenerational interactions are expected to become more complex in future. Visitation or face to face interaction by family members to the institutionalized elderly is also the most common means of maintaining ongoing family relations. In addition to face to face interaction the telephone also plays a major role in maintaining relations between generations. In the absence or lack of traditional caregiver (Inter-generational relations) the elderly feel disgusted and when situations becomes intolerable then finally, they have no other alternative but to seek shelter in Old Age Homes.

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Dental Care of Elderly Inmates Living In Old Age Homes: A Survey Report

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ABSTRACT

The purpose of this study was to evaluate the oral health status and prosthetic needs of elderly inmates of old age homes in Mumbai and to design a treatment plan to improve their lifestyle. 300 subjects (age 65 and above) residing in various geriatric homes in Mumbai were randomly selected. A questionnaire was prepared and the geriatric patients were asked to give required information in the questionnaire. It was found out that the dental status of 55 per cent of patients were partially edentulous and 45 per cent were completely edentulous. 28 per cent of these patients wore complete dentures and 8 per cent wore partial dentures. 51 per cent of them were satisfied with their prosthesis. On the basis of present findings it may be concluded that the oral condition and status of the subjects of this study were poor and 59 per cent of these patients had never used prosthesis before. The treatment needs were extensive due to lack of awareness, neglected care and poor socio-economic status.

Key words: Geriatric care, Oral status, Prosthesis, Dental treatment.

Good health has been the goal of mankind. Due to the advances in medical science, lifespan has increased significantly, leading to a rise in demographic profile of geriatric population. The mission of health

care providers is to render professional services to substantially improve the life span and make the later part of a person's life more productive and enjoyable (Goel *et al*., 2006 and Chhabra *et al*., 2013). Oral health plays an essential role in the quality of life, management of medical problems, nutrition and social interaction of the geriatric population (Gil-Montoya *et al*., 2006).

Studies regarding the dental health status and treatment needs of the geriatric population in India are scanty. The oral health of geriatric population was found to be poor; especially among institutionalized elderly people (Viglid, M. 1987, Knabe and Kram 1997, Frenkel *et al*., 2001 and Shenoy and Hegde 2011,). It is imperative not only to understand their needs but also to rehabilitate them. Thus, an oral health survey was planned to evaluate the oral health status of the elderly inmates residing in geriatric homes in Mumbai and design a treatment plan to improve their lifestyle, which can be implemented easily.

Method

Sample

This cross sectional survey was carried out in various geriatric homes in Mumbai. 300 subjects (Male = 158 and Female = 142) who were selected for this study, were above 65 years.

Tools used

A questionnaire performa was prepared on the basis of the information received from elderly persons and the experts of the subject.

The armamentarium used included diagnostic instruments, instrument carrying trays, facemasks, examination gloves, torch.

Procedure

The importance of oral health and the need for this survey was explained to the inmates. Written consent was obtained from the subjects. Patients who refused for the dental check-up; frail and terminally ill patients, were excluded from the study. The questionnaire performa was explained in detail to the inmates and they were provided guidance in the filling of the performa. Data on socio-demographic status (age and gender), educational status, medical history, psychological status, and food habits of the inmates were

collected through the preforma. Dental status was evaluated with Geriatric Oral Health Assessment Index (GOHAI) and an intraoral examination.

GOHAI is a self-reported measure designed to assess the oral health problems of geriatric patients. This index provides an estimation of oral functional problems in older adults and psychosocial impact of oral diseases. It also provides a measure for comparing the effectiveness of various dental treatment modalities in geriatric patients (Atchison, K. and Dolan T. 1990).

Individual oral health information was collected from the questionnaire performa. This was supplemented by an intra-oral clinical examination for the inmates. Most of the subjects were examined sitting in chair. Artificial illumination was used where required. Detailed clinical examination of the oral cavity revealed teeth indicated for extraction, carious teeth and restored teeth. It also showed the state of edentulism and its causes. The presence and type of prosthesis (fixed or removable) was recorded for each participant.

The treatment was planned using PTF elder health index (Peltola *et al*., 2004) The treatment that elderly patients should receive was categorized by ranking them in three categories:

1. The health of the patients (P),
2. The condition of their teeth (T) and
3. Their finances (F).

This determined the best prosthetic outcome for rehabilitation of these patients.

The majority of the patients depend upon nursing staff and caregivers for all aspects of personal hygiene. Caretakers are frequently unaware of the importance of oral health within holistic care. They are unable either to carry it out or to train auxiliary staff to do so in geriatric homes (Frenkel *et al.*, 2001).

The collected data was entered on the excel sheet and analyzed using SPSS software. All testing was done using two sided tests at alpha 0.05 (95% confidence level). The data for age and GOHAI scores are expressed as means with standard deviation (S.D.). The data for other

parameters are expressed as numbers with percentages. Data of males and females were compared using Chi-Square test (χ^2 test).

Results

Demographic Data

A total of 300 subjects [158 males (52.67%) and 142 females (47.33%)] aged 65 years and above (mean age 73.9 ± 7.37 years) formed the study population. (Table 1)

Table 1
Demography of Patients Included in Survey

	No.	*%*		
Gender				
Male	158	52.67		
Female	142	47.33		
	Mean	**SD**	**Min.**	**Max.**
Age (yrs.)	73.92	7.37	50	92

Educational Status

55 per cent of these patients were illiterate, 19 per cent of them had taken primary education, 23 per cent were educated till secondary and only 3 per cent had graduated. 94 per cent of them were retired. (Table 2)

Table 2
Educational Status of Patients

Education	*Male (n=158)*		*Female (n=142)*		*Total (n=300)*		*Males vs Females (χ2 test)*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*χ2*	*'p'*
Illiterate	88	55.69	77	54.23	165	55	1.499	0.827
Primary	29	18.47	28	19.72	57	19		
Secondary	35	22.15	34	23.94	69	23		
Graduate	5	3.16	3	2.11	8	2.67		
Post Graduate	1	0.63	0	0.00	1	0.30		

General Health Status

Their medical history showed that hypertension – 21 per cent, diabetes – 15 per cent and bronchial asthma – 7 per cent were found to be more prevalent amongst these patients. (Table 3)

Table 3
Medical History of Patients

Medical History	*Male (n=158)*		*Female (n=142)*		*Total (n=300)*		*Males vs Females ($\chi 2$ test)*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*$\chi 2$*	*'p'*
Hypertension	35	22.15	28	19.72	63	21.00		
Diabetes mellitus	26	16.46	18	12.68	44	14.67		
Acidity	2	1.27	0	0.00	2	0.67		
Arthritis	0	0.00	2	1.41	2	0.67		
Brain Surgery	1	0.63	0	0.00	1	0.33		
Bronchial asthma	9	5.70	12	8.45	21	7.00		
Cataract operation	1	0.63	0	0.00	1	0.33		
Cardiovascular disorder	1	0.63	4	2.82	5	1.67		
Epilepsy	2	1.27	2	1.41	3	1.00		
Eye surgery	5	3.16	3	2.11	7	2.33		
Hearing impairment	1	0.63	3	2.11	4	1.33		
Hypercholesterolemia	3	1.90	2	1.41	4	1.33		
Liver disorder	1	0.63	0	0.00	1	0.33		
Hemiplegia	1	0.63	4	2.82	5	1.67		
Pedal edema	0	0.00	1	0.70	1	0.33		
Renal disorder	0	0.00	2	1.41	2	0.67		
Urination disorder	1	0.63	0	0.00	1	0.33		
Walking impairment	0	0.00	1	0.33	1	0.33		
Drugs taken for medical problems	85	53.80	79	55.63	164	54.67	32.791	0.286

Psychological Status

55 per cent of these patients had family members visiting them. Most of these patients used to spend their time by performing religious activity, socializing and meditation. (Table 4)

Table 4
Psychological Status of Patients

Psychological Status	*Male (n=158)*		*Female (n=142)*		*Total (n=300)*	
	No.	*%*	*No.*	*%*	*No.*	*%*
Religious activities	95	60.13	87	61.27	182	60.67
Socializing	49	31.01	45	31.69	94	31.33
Reading	9	5.70	4	2.82	13	4.33
Exercise	21	13.29	9	6.34	30	10.00
Work	9	5.70	3	2.11	12	4.00
Cooking	0	0	0	0	0	0
Meditation	69	43.67	68	47.89	137	45.67
Music	1	0.63	0	0.00	1	0.33
Games	1	0.63	0	0.00	1	0.33
Others	4	2.53	4	2.82	8	2.67

Food Habits

82 per cent of these patients consumed vegetarian diet and 83 per cent of these patients consumed mashed food and only 6 per cent of them were having staple diet. (Table 5)

Table 5
Food Habits of Patients

	Male (n=158)		*Female (n=142)*		*Total (n=300)*		*Males vs Females (χ^2 test)*	
	No.	*%*	*No.*	*%*	*No.*	*%*	χ^2	*'p'*
Diet type								
Veg	132	83.54	114	80.28	246	82.00	0.539	0.463
Non-Veg	26	16.46	28	19.72	54	18.00		
Food type								
Mashed food	129	81.65	120	84.51	249	83.00		
Hard food	20	12.66	13	9.15	33	11.00		
Staple diet	9	5.70	9	6.34	18	6.00		

Dental Status

The dental status showed that 55 per cent of patients were partially edentulous and 45 per cent were completely edentulous. The reason for edentulism was predominantly caries – 60 per cent and periodontal disease – 37 per cent. 28 per cent of these patients wore complete dentures and 8 per cent wore partial dentures and 51per cent of them were satisfied with their prosthesis. The reason for dissatisfaction of remaining patients was that the prosthesis was not retentive, broken, lost or ill fitting. 59 per cent of these patients had never used prosthesis before and reason for not seeking dental treatment was high cost and lack of facilities. (Table 6)

Table 6

Prosthesis Used by Patients

	Male (n=158)		*Female (n=142)*		*Total (n=300)*		*Males vs Females (χ2 test)*	
	No.	*%*	*No.*	*%*	*No.*	*%*	χ^2	*'p'*
Prosthesis type								
CD	44	27.85	41	28.87	85	28.33		
RPD	14	8.86	11	7.75	25	8.33		
FPD	5	3.16	8	5.63	13	4.33		
Total patients using prosthesis	63	39.87	60	42.25	123	41.00	0.175	0.676
Satisfied with prosthesis	31/63	49.21	32/60	53.33	63/123	51.22	0.209	0.647
CD	20/44	45.45	19/41	46.34	39/85	45.88		
RPD	6/14	42.86	5/11	45.45	11/25	44.00		
FPD	5/5	100	8/8	100	13/13	100		
Dissatisfied with prosthesis	33/63	52.38	26/60	43.33	59/123	47.97	7.939	0.540

Geriatric Oral Health Assessment Index (GOHAI)

The average GOHAI score amongst these patients was 36.44, which showed that these patients had poor oral health status.

GOHAI is a sum of the recorded values for 12 questions with a high score indicating good oral health (Atchison and Dolan 1990 and Murariu *et al.*, 2010). The GOHAI scores were divided into three

categories: high, moderate and low rating of health. A score of 57–60 was considered high score, 51–56 was considered moderate score and less than 50 was a low score. In addition, the other variables compared were age, marital status, annual income, education status and gender (Table 7).

Table 7
Mean Scores for GOHAI

Questions	*Male (n = 158)*		*Female (n = 142)*		*Total (n = 300)*		*Males vs Females (χ2 test)*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*χ2*	*'p'*
1	3.37	0.94	3.47	0.82	3.42	0.89	0.921	0.338
2	3.44	0.89	3.56	0.83	3.50	0.86	1.300	0.255
3	3.36	0.93	3.39	0.94	3.37	0.93	0.060	0.806
4	3.07	0.97	3.25	0.94	3.15	0.96	2.576	0.110
5	3.09	0.98	3.16	0.94	3.13	0.96	0.364	0.547
6	2.93	1.09	3.01	1.03	2.97	1.07	0.386	0.535
7	3.11	0.98	3.19	1.08	3.15	1.03	0.482	0.488
8	2.94	1.11	2.96	1.07	2.95	1.09	0.030	0.864
9	2.72	1.08	2.92	1.14	2.82	1.11	2.475	0.117
10	2.82	1.02	2.75	1.03	2.79	1.03	0.413	0.521
11	2.84	1.00	2.71	1.06	2.78	1.03	1.091	0.297
12	2.54	1.05	2.29	1.08	2.42	1.07	4.115	0.043
Total GOHAI Score	36.24	5.68	36.65	6.03	36.44	5.84	0.376	0.540

Table 8
PTF Elder Health Index for Prosthetic Treatment Planning

Elder Health	*P Patient*	*T Teeth*	*F Finances*
1. Optimal	Fixed Or	Removable On	Teeth And/Or Implants
2. Compromised	Combinations Of	Removable And Fixed	On Teeth
3. Declining	RPD Treatment Best For Reduced Tolerance	RPD Treatment Most Versatile For Changes	RPD Treatment Most Economical

To raise awareness of oral health care, oral hygiene instructions were given to all the subjects with the help of educational charts and models. Oral hygiene aids like toothbrush, toothpaste and denture brushes were distributed amongst the inmates. Also, special oral hygiene instructions were given to the nursing staff and oral health education pamphlets were handed over to the caretakers of the geriatric homes.

Discussion

It is prudent to discuss systemic conditions, social and spiritual needs of an individual as it has an impact on oral health of the elderly population (Zafar *et al.*, 2006). There is a scientific evidence in dental and medical field that oral health and systemic diseases are related (Ferguson *et al.,* 2010 and Partida M. 2014). Periodontal disease leads to an increase in systemic inflammatory response (Joshipura *et al.,* 2009 and Partida M. 2014). Diabetes is a risk factor for periodontal disease (Mealey and Oates 2006). Also, there is an association between hypertension and gingival and periodontal disease (Kumar and Chowdhary 2012). This study has found diabetes and hypertension to be prevalent amongst the inmates, which has an effect on their oral health.

Dental caries was directly correlated with education level, oral hygiene practices and diet (Shah and Sundram 2004). It was observed that prevalence of dental caries was higher amongst in older individuals. Dental caries was found to be higher in individuals consuming refined carbohydrates and individuals with higher frequency of in-between meals (Bibby B. 1961). This study has shown that there is a shift from a well-balanced diet to softer diet with high carbohydrate content, which leads increase in dental caries. This results in deficiency of vital nutrients and compromises the immune status of the geriatric patients, making them more susceptible to infections.

This study has shown that very few inmates had worn prosthesis. This may be due to lack of awareness, financial constraints, reduced mobility and lack of interest. Higher utilization of care can be achieved by providing on-site dental care instead of referring elderly persons to dental clinics. This may be of immense value in fulfilling the prosthetic need of the elderly (Shenoy and Hegde 2011).

With increased age there is an increased need for prosthodontic care that includes complete and partial dentures, fixed crowns and bridges. Current trends in prosthodontic practice indicate a rise of implant prosthesis (Partida M. 2014). Understanding the need of this population will help in rendering appropriate prosthetic treatment.

Health care professionals should receive training on oral health issues and centers should develop guidelines for nursing staff and auxiliary health care workers (Peltola *et al.,* 2004). Practical training for nurses and auxiliary care staff has frequently been recommended for improving oral health care of geriatric patients (Frenkel and Harvey 2001, Gil-Montoya *et al.,* 2006) .

This study has shown that more than half of the population did not feel the need or urge to visit a dentist, although their dental conditions were not ideal. This indicates clearly that dental treatments were not within their priorities. The reason for poor dental health status could be due to medical conditions, socio-economic status, psychological status, cost, lack of facilities and fitness. Through education, financial stability and the availability of dental insurance, individuals may become more increasingly concerned with their oral health (Ozkan Y. *et al.,* 2011).

Conclusion

The dental status of the subjects was poor and 45 per cent of them were completely edentulous.59 per cent of these patients had never used prosthesis before. The staff of geriatric home must be trained and instructed to maintain oral hygiene amongst these patients. Special training must be given to the nurses and auxiliary care staff to make them aware of the importance of oral health care. Dental awareness programs must be carried out to deliver these social messages.

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The Population and the Issues Affecting the Elderly in Umuebu, Nigeria

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ABSTRACT

This study focuses on people aged 60 years and above. Data for this study was collected from 81 elderly persons of both the sexes (Male =29 and Female= 52) from the four quarters in Umuebu Community, Nigeria. The researcher randomly selected and interviewed the respondents from a population of 200 elderly persons in the community. The interview focused mainly on the issues affecting their lives. The study lasted for two months starting from 3rd March to 30thApril 2014. On the basis of this study it may be concluded that there were more females elderly than male elderly in Umuebu. It means females are more likely to survive to old age. It was also found out that the elderly males had higher literacy rates than the elderly females. It is suggested that Government should provide more support for elderly women and ensure adequate financial security for the elderly. Government is also expected to support and encourage the training of geriatric social workers, nurses and doctors and ensure the accessibility of their services in the rural areas. The studies on problems and needs of elderly persons should be encouraged and financially supported by the authorities.

Key words: Social Work, Elderly, Old Age Security, Social Welfare, Nigeria

The Nigerian National Policy on the Care and Well-being of the Elderly, seeks to address the problems and needs of the elderly in the areas of income adequacy and security, socio-cultural integration and participation, housing and environment and other dimensions of personal welfare. It focuses on six broad issues: Awareness, Attitudes and Societal Action; Social Services for the Elderly; Economic Empowerment; Information, Statistical Data and Research; Funding and Resource Mobilization and Orientation of macro-Economic and Sectorial Policies. The National Policy stipulates that the social services for the elderly would include Health care and/Food Nutrition Care; Housing and Related Facilities; Recreational Facilities; Transportation and Mobility Facilities and Personal Welfare Services.

The 1999 Constitution of the Federal Republic of Nigeria in Section 14 subsection 20b states, "suitable and adequate shelter and food, reasonable minimum living wages, old age and pensions and unemployment, sick benefits and welfare of the disable are provided for all citizens (FRN, 1999). In the Social Development Policy for Nigeria (2004), one of the key components of the social welfare subsector is ageing. The objectives of ageing component of the Social Development Policy (2004: 88–89) are to:

1. Provide an enabling environment and support to enable older persons to achieve their personal goals and realize their potential through continued participation in the family, community and society;
2. improve the quality of life of older persons;
3. ensure total integration of older persons in the society;
4. strengthen existing traditional institutions for the care of older persons;
5. ensure the right of older persons to independence, participation, care, self-fulfillment and dignity;
6. ensure adequate income security for older persons;
7. facilitate/ensure that pensions and gratuities are paid to the aged as at when due;

8. de-emphasize the use of institutionalization while emphasizing community based support system; and
9. ensure that public infrastructure accommodates the need of older persons and ensure the elimination of all forms of discrimination against them
10. Despite the provisions made in the constitution and National Policy on the Care and Well-being of the Elderly, successive governments in Nigeria fail to prioritize the care for the elderly.

Although, the ageing component of the Social Development Policy for Nigeria has these objectives, the government has failed to implement them. This is consistent with WHO (2012) observation that the government of sub-Saharan Africa gives little consideration to issues of old age. Consequently, most elderly persons in Nigeria experience persistent problems (Gesinde, *et al*., 2011). The situation is aggravated by the worsening economic conditions, breakdown in traditional values, and reduced ability of most families to provide support for their elderly members.

According to Global Age Watch Index (2014), Nigeria ranks 85 out of 96 countries on the overall Global Age Watch Index. The Index ranks the countries according to the social economic wellbeing of the older people which is measured through four domains: Income security, health status, capability and enabling environment. Nigeria ranks low in the enabling environment domain (75), very low in the health domain (88) and has its lowest rank in the income security domain (90). Nigeria has its highest rank in the capability domain (47). On income security, Nigeria has only 5 per cent of pension income coverage. In Nigeria, social security assistances are provided for some workers in wage employment (Wahab & Isiugo-Abanihe, 2010) and only two states: Ekiti and Osun states have social pension programmes. On the capability domain, the rank is high because most elderly persons work in the informal sector, such as working in the farms or operating small scale businesses.

Wahab & Isiugo-Abanihe, (2010) identify demographic changes and their impact on social institutions as the major factors responsible for the situation of the elderly in Nigeria. They argue that these factors have adverse consequences on the wellbeing of the elderly in Nigeria.

For example, most of the recent changes in the family structure have far-reaching effects on the wellbeing of the elderly in the form of failing income, deteriorating health conditions, poor nutrition, loneliness and boredom.

Modernization is one of the factors often linked with the withdrawal of family support for the elderly in Nigeria. In contrast, evidence from several studies in Africa such as Apt, (1994); Adamchak, (1991); Cattell, (1990); Togomu-Bickersteth, (1987, 1989); and Peil, (1991, 1992), suggest that despite the experience of modernization, the family remains committed to the support of their elderly members. This study is therefore an attempt to define the health needs and care gaps for the elderly in Nigeria. The knowledge from this study will inform the beginning of an organized intervention program for the elderly in Nigeria. It will also provide the basis for persuading decision makers in government and non-governmental organizations to invest in the care for the elderly in Nigeria.

This study is located in Umuebu, a rural community in Ukwuani Local Government Area of Delta State in Nigeria. Agriculture is the main occupation in this community. A few elderly persons in the community had worked in government and receive pension benefits. In contrast, others who have worked all their lives as subsistence farmers do not receive pensions or social security. There is no old peoples' home in Umuebu. People in Umuebu grow old in the residences in which they have lived most of their lives. Consequently, the family or the extended family system remains the most important institution for the care of the elderly in Umuebu as in other parts of Nigeria.

Demographic Characteristics

According to the CIA, World Fact Book Report (2014), the population of Nigeria is 177 million (2014 Est.). The life expectancy at birth is 51.63 years (male) and 53.66 years (female). This suggests that women have longer life expectancies than men have but are more likely to be more vulnerable economically.

Those aged 65 years and above represent 3.1 per cent of the total population made up of (Male 26,21,845/Female 28,61,826). This suggests that that there are more females than males in the older ages

meaning more females survive to old age than the males. This is consistent with WHO (2012) observation that "life expectancy at age 60 years in sub-Saharan Africa is 16 years for women and 14 years for men. In Nigeria, life expectancy at 60 is 15 for men, 16 for women (Global Age Watch, 2014). Globally, the population of persons aged 65 years and above was 524 million in 2010. It is expected to increase from 524 million in 2010 to about 1.5 billion in 2050 (United Nations, 2010).

The elderly occupy important positions and play important roles in the traditional society. They make valuable material and immaterial contributions to societies. Aboderin and Beard (2014) emphasize that in sub-Saharan Africa, older Africans play roles that are essential to achievement of human and economic wellbeing. Some of such roles include caring for younger kin, shaping younger generations' access to health, education and other capabilities. Evidence from Nairobi and Zimbabwe suggests older Africans play critical roles of caregiving, particularly in the context of HIV/AIDS. In both countries grand-mothers provide care to more than 60 per cent of orphaned children (UNICEF, 2007). Evidence from Nairobi, Kenya also suggests that older people engage in care for one or more non-biological child (African Population and Health Research Center, Centre for Research in Ageing, University of Southampton, unpublished). Furthermore, the older persons have major economic roles (Olwande and Mathenge, 2011; UN, 2012).

In the traditional Nigerian society, people hold the elderly to high esteem and the younger generations benefit from their experience. The National Policy for the Elderly in Nigeria is rooted in this traditional recognition for the elderly. However, the increased longevity and the growing presence of elderly create new opportunities and challenges for individuals, social workers and societal development. It creates a need for social and economic policies, services, research to enhance their well-being and to eliminate the ageism that prevents them from living with dignity, realizing their full potentials, and accessing resources.

Literacy and Educational Attainment

Several studies report on the gender differences in literacy at older ages. In developing countries, elderly women have lower rates of literacy than elderly men do. The literacy rates in Nigeria vary in terms of place of residence and gender. According to National Bureau of Statistics (2010), the males have higher literacy rates of 65.1 per cent compared to females' 50.6 per cent.

Challenges of the Elderly

The elderly in Nigeria experiences several challenges. According to Okunola (2002) the challenges experienced by the elderly in Nigeria could be psycho-social, economic medical and cultural. The Social Development Policy for Nigeria (1989) states that the elderly have special needs as well as social-economic and health problems requiring special attention and treatment. The challenges of the elderly in Nigeria include poverty, economic insecurity; unaffordable and inaccessible health care; violence and abuse, weakened social and family support systems as well as poor living arrangements (National Population Commission, 2003). They also face the problem of abandonment (Okoye, 2004). They also experience several types of disabilities: deaf, dumb, deaf and dumb, blindness, cripple mental challenge and other forms of disabilities. Among the elderly, the most common type of disability is blindness. It accounts for more than four in ten of all disabilities. The incidence of blindness increases with age. For instance, an 85-year elderly person is more than four times likely to be blind as a 60-year-old person.

In Tehran, Sheykhi (2012) observes that older people generally experience ageism. They experience unusual discrimination because of their age and often find it difficult to secure new jobs. Some elderly grandparents face challenges associated with addiction, mental health problems, Alzheimer's disease, dementia and increasing cases of depression. Furthermore, they experience social exclusion. This translates to poor health, poor housing, and poor access to medical treatment.

Aboderin & Beard (2014) also emphasize that older African people experience a large morbidity and disability burden. Their preliminary analysis of 2010 Global Burden of Disease data identify cardiovascular and circulatory disease, nutritional deficiencies,

cirrhosis of the liver, and diabetes as key causes of disability-adjusted life years in sub-Saharan African's older population. Findings from several surveys on the health of older adults suggest that older persons experience high rates of hypertension (Aboderin and Hoffman, 2013); musculoskeletal disease (Lloyd-Sherlock, *et al.*, 2014); visual impairment (Clausen, *et al.,* 2005) and depression (Bekibele and Gureje (2008).

Research Questions

This study seeks to provide answers to the following questions:

1. What are the demographic characteristics of the older persons in Umuebu?
2. What is the health challenges facing older persons in Umuebu?

Theoretical Framework

Four prominent sociological theories of ageing are: The Disengagement Theory, Activity Theory, Continuity Theory and Conflict Theory. This study draws on the conflict theory of ageing. The main assumption of the conflict theory is that older people experience discriminations based on age and inequalities occur along the lines of gender, race, ethnicity and social class.

Theories of disengagement, activity and continuity fail to consider the influence of social structure on forms of ageing. For instance, research shows that old persons who belong to the upper classes have better health and are more likely than those from the lower class to have access to health care, food and medication (Schoeni, *et al.,* 2005). Similarly, research findings further suggest that older people from the lower economic class are up to three times more likely to experience disability and physical, cognitive and sensory challenges than other groups. Several studies also show the association between the incidences of physical disease in older persons with their socio-economic status.

The conflict theory maintains that older people are devalued because they are no longer economically productive and because their higher salaries, health benefits, and other cost drive down capitalist profits (Hooyyman & Kiyak, 2011). According to the conflict theory, the elderly people gradually become less productive as they get older. Consequently, the importance of the elderly in the society gradually

diminishes, leading to loss of respect for them, the onset of ageism while the middle age takes on most of the power.

Methodology

Data for this study was collected from 81 elderly (60 years and above) of both sexes from the four quarters in Umuebu Community, Nigeria. The researcher randomly selected and interviewed the respondents from a population of 200 elderly persons in the community. The interview focused mainly on the issues affecting their lives. The study lasted for two months starting from 3rd March to 30thApril 2014.

Results

Table 1
Demographic Characteristics of the Respondents

Variables	*Sex*		*Total*
	Male	*Female*	
	%	%	%
Age Groups			
60 – 69	59	69 19	65
70 –79	28 10	10	22
80 – 89	3	2	10
90 +			3
Marital Status			
Married	55	42	47
Never Married	0	0	0
Widowed	34	33	33
Divorced	4	15	11
Separated	7	10	9
Educational			
None	34	58	49
Primary	52	38	43
Secondary	14	4	8
Post – Secondary	0	0	0
Religion			
Christian	41	62	54
Moslem	0	0	0
African Traditional Religion	59	38	46
Total	29	52	81

Source: Fieldwork, 2014

Population by Age and Sex

Age and sex are vital demographic variables and are the major basis of analysis of demographic classification. There are 200 persons aged 60 and above residing in Umuebu community by 31st March 2014. This is about 2.7 per cent of the total population of 7,525 (2014 Est.). The aged is the smallest segment of the population of Umuebu. This is consistent with the Nigerian population (NPC, 2001).

The proportion of the population in each age group declines as age increases. The lowest age group among the elderly (60 – 69) has the largest proportion of the population of the elderly (65%), while the oldest of the elderly that is persons aged 90 and above were only 3 per cent of the total population of the elderly. The sex composition of the aged in Umuebu suggests that there are more females than males between the ages of 60 – 89. This shows that between the ages of 60 – 89 women outnumber men in Umuebu. This suggests that men have lower probabilities of surviving to old ages than the women between the ages of 60 – 89. Overall, only about 36 per cent of the elderly is male and 64 per cent is female.

Table 2

Distribution of Respondents by their Most Common Self-reported Health Problems and Sex

Self-Reported Health Problems	*Male%*	*Female%*	*Total*
Eye and Rheumatism	45	63	57
Malaria/Fever	31	2	12
Others	24	35	31
Total	29	52	81

Source: Fieldwork, 2014.

The data in Table 2 suggest that the elderly females are more likely than the males to experience health challenges in Umuebu. The elderly females (63%) are more likely than the elderly males (45%) to experience eye and rheumatism challenges. In contrast, the elderly females (2%) are less likely than the elderly males (31%) to experience malaria/fever as major heath challenges. Lastly, the elderly females

(35%) are more likely than the elderly males (24%) to experience all other kinds of health challenges such as high blood pressure, diabetes, cough, general body pain, heart, stomach, ear problems and hernia. According to UNFPA (1998), women are more likely to experience real threat of poverty than the males at older ages. This translates into a comparatively worse health experienced by the women.

Table 3

Distribution of the Respondents by Gender and the Person Financially Responsible for their Medical Needs

Who is Financially Responsible for Medical Health Needs	*Male %*	*Female %*	*Total*
Self	14	13	14
Spouse	21	23	22
Children	55	60	58
Community members and Extended family members)	10	4	6
Total	29	52	81

Source: Fieldwork, 2014.

In order to ascertain the ability of the elderly persons to pay for health care services, they were asked to indicate who was financially responsible for their medical needs. Only 14 per cent of them claimed to be responsible for their medical needs. The remaining 86 per cent of the elderly persons claim that others were responsible for their medical needs. This suggests that most of the elderly persons in this community live in poverty and are unable to take responsibility of their medical needs in the absence of any form of support.

Implications for Practice, Policy

The findings from this study provide policy makers with evidence based data or information on the challenges and the needs of the elderly in rural communities in Nigeria. The major findings in this study require policy intervention. According to Adebowale, *et al.*, (2012), both the general health policy and the primary health care system lack adequate provision for attending to the health care for the

elderly. Okumagba (2011) asserts that even the elderly persons who served in public or private organizations often live and die in poverty because of the ineffectiveness in the management of the pension scheme.

According to the National Population Commission, (2003: 102): "The Federal Government is aware that the elderly have special needs. It is also aware of its responsibility to promote the well-being of all Nigerian citizens, including the elderly, and to provide leadership to the other tiers of government to the same end. The National Policy on the Care and Well-Being of the Elderly in Nigeria has been in place since 1989. What is lacking in Nigeria is the political will and commitment to implement the policy. In the absence of government's commitment to the well-being of the elderly in Nigeria, the family remains the major source of support for the old persons in Nigeria.

There is a general dearth of documented information on the challenges of the elderly in Nigeria. This study on the elderly in Umuebu community is a major contribution to the data bank on the challenges of the elderly in Nigeria.

Conclusion and Recommendations

In view of the findings above, this study concludes that there are more females than males in the older ages in Umuebu, but the males have higher literacy rates than the females.

Although, men have higher literacy rates compared to females, females are more likely to survive to old age. This is consistent with the CIA Report 2014. Furthermore, blindness and rheumatism are the most common types of disability among older persons in Umuebu. Above all, poverty and financial insecurity is a major challenge of the elderly persons in this community. Most of the elderly persons are unable to pay for their medical needs. Finally, elderly women are more likely to experience disabling illness than the elderly men. The findings of this study are consistent with the findings of Peil, (1992), Wahab & Isiugo-Abanihe, (2010), and the report of the Global Age Watch Index (2014).

The findings from this study suggest that women have a greater need for support from care givers and government. Consequently, government should intensify support for girl-child education to close the gender gap in education. Government should also provide more support for women and ensure adequate financial security for the elderly. Government and social work practitioners should conduct regular researches or studies on these identified problems of the elderly in Nigeria. Government should provide fund to support studies or researches on the challenges and needs of the elderly in Nigeria. Government should support and encourage the training of geriatric social workers, nurses and doctors and ensure the accessibility of their services in the rural areas. Lastly, government should review and implement the National Policy on the Care and Well-Being of the Elderly in Nigeria.

The obvious lack of commitment of the government to the welfare of the old persons and the negative influence of urbanization and modernization on the traditional family structures adversely affect the elderly in Nigeria. Consequently, if geriatric resources (implementation of policies, human and material resources) remain inadequate in Nigeria, the care for the elderly will remain increasingly problematic in terms of stress and all the other support services required to meet the basic needs of the elderly persons with health problems

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Death Anxiety and Its Associated Factors among Elderly Population of Ludhiana City, Punjab

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ABSTRACT

The purpose of this exploratory study was to assess the level of death anxiety and its associated factors among 200 elderly subjects (male=103 and female=97) age 60 years and above, selected by using convenience sampling technique, from selected areas of Ludhiana city, Punjab. "Standardized Templer's Death Anxiety scale-extended" (Templer et al., 2006) was used for assessing the death anxiety among elderly population. A questionnaire was developed to assess the associated factors related to death anxiety. Data was collected by self report method. Most of the elderly (mean age 67.64±6.08) showed moderate level of death anxiety i.e. 64.5 per cent with death anxiety mean score 22.82±2.58 while 18.5 per cent showed severe level of death anxiety with death anxiety mean score 29.45±1.62. Subjects who were suffering from chronic medical illness ($p=0.05$), disturbed family cohesiveness ($p=0.02$), having stress related to family ($p=0.01$), only family earner ($p=0.05$) showed significantly higher level of death anxiety. Having religious affiliations showed strong positive association with level of death anxiety in Indian elderly ($p<0.01$). Among this elderly cohort, a high level of death anxiety was also associated with female gender ($p=0.00$), illiteracy ($p=0.00$), low socio-economic status ($p=0.00$), those living with spouse only ($p=0.04$), non working

elderly (p=0.00). In conclusion it may be said that elderly people show moderate to high level of death anxiety in their later life. High level of death anxiety is associated with medical illness, loneliness, stress related to family, female gender, illiteracy, low socio-economic status and non working elderly. Therefore, Death anxiety needs more critical attention in acute care settings especially among elderly where the focus is on active treatment and curative management.

Key words: Death anxiety, Elderly, Associated factors.

Death is a powerful human concern that has been conceptualized as a powerful motivating force behind much creative expression and philosophic inquiry throughout the ages (Rebecca, H., *et al.*, 2009). The old people often have limited regenerative abilities and are more prone to diseases, syndromes and sickness than younger adults, due to these factors elderly perceive themselves more close to death (Smith, D.K., *et al*., 1984). High death anxiety among elderly adults has been related to physical and psychological problems and low ego integrity (Fortner and Neimeyer 1999). There are several explanations for the result, they might think about their mortality more often, death of close friends and spouses might trigger off increased death anxiety (Suhail and Akram 2002).

Many variables could affect the degree to which an individual experiences death anxiety. These variables include age, gender, religious beliefs, health & social support (Jo K.H. and Song B.S. 2012).

Practically, death anxiety studies are extremely useful in improving the quality of life and health care services for those who have high levels of death anxiety. By pointing out the variables involved in increasing or decreasing anxiety, health professionals can work towards reducing or promoting them respectively (Ibid.) An example would be to have support groups for these individuals to express their fears and concerns as well as find healthy and effective ways to deal with their anxiety. So it becomes an urgent requirement to look into the area of death anxiety among elderly population (Rebecca, H., *et al.*, 2009).

The Objective this study was to assess the death anxiety and its associated factors among elderly population.

Materials and Methods

Sample

For this exploratory research 200 elderly people (Male=103 and Female=97) of age 60 years and above were selected by using convenience sampling technique from selected areas of Ludhiana city, Punjab. Once participant's eligibility was established, written informed consent was obtained from participants.

Tools of study

"Standardized Templer's Death Anxiety scale-extended" (Templer *et al.*, 2006) was used for assessing the death anxiety among elderly subjects of this study. Content validity of tool was established by the experts from the field of Medical Surgical Nursing and Mental Health Nursing. Reliability of the developed tool was checked by test retest method using Karl Pearson coefficient of correlation where r=0.9. Hence tool was highly reliable.

Scoring and Statistical Analysis

The respondents were asked to give their responses by encircling either YES or NO, written against each statement of the scale. Yes was marked '1' score and No was marked as '0'. Grading of death anxiety was done as follows: mild (Mean – SD & below), Moderate (between mild & severe death anxiety scores) and Severe (Mean + SD and above).

A questionnaire was developed to assess the associated factors related to death anxiety. It included questions to be answered as Yes and No that were related to personal, family, social, financial and spiritual factors influencing death anxiety among elderly.

Data was collected by self report method. The confidentiality of every data collected was maintained. Analysis of data was done in accordance with the objectives of the study using descriptive and inferential statistics. Calculation has been done using Statistical Package for social sciences (SPSS) 19.

Ethical clearance was obtained from ethics committee of DMC & Hospital Ludhiana.

Results

Table 1 depicts that majority of elderly people from age group of 60–70 years with mean age of 67.64 ± 6.08. Majority of the elderly 31 per cent had qualification of graduate and above, were married (79%) and belonged to nuclear family (75%). More than half of elderly (66%) were living with their spouse and children. 50 per cent of the subjects had monthly family income Rs = 15,000 and 33.5 per cent had caregiver as their source of income.

Table 1

Socio-demographic Characteristics

N = 200

Variables	*f (%)*
Age* (in years)	
60–70	144 (72.0)
71–80	044 (22.0)
81–90 012 (06.0)	
Gender	
Male	103(51.5%)
Female	097(48.5%)
Educational status	
Illiterate	043 (21.5)
Secondary	036 (18.0)
Senior Secondary	059 (29.5)
Graduate and above	062 (31.0)
Type of family	
Nuclear family 1	150 (75.0)
Extended family	004 (02.0)
Joint family	046 (23.0)
Living with	
Spouse only	025 (12.5)
Children only	037 (18.5)
Both spouse and children	133 (66.5)
Relatives	005 (02.5)

Cont'd...

Cont'd...

Total family income per month	
≤ 5,000	020 (10.0)
5,001–10,000	034 (17.0)
10,001–15,000	046 (23.0)
≥ 15000	100 (50.0)
Source of income	
Pension	038 (19.0)
Business/self employed	045 (22.5)
Caregiver	067 (33.5)
Both pension and caregiver	050 (25.0)

* Mean age (in years) = 67.64 ± 6.08.

Table 2

Level of Death Anxiety among Elderly Population

N = 200

Level	*Mean ± SD*	*f (%)*
Mild (< 18.08)	15.94 ± 1.92	034 (17.0)
Moderate (18.08–27.46)	22.82 ± 2.58	129 (64.5)
Severe (> 27.46)	29.45 ± 1.62	037 (18.5)

Mean ± SD = 22.7 ± 4.69

Severe: Mean + SD and above

Mild: Mean – SD and below

Moderate: b/w mild and severe death anxiety scores

Table 2 and Figure 1: depicts the levels of death anxiety mean score among elderly was computed to be 22.7 ± 4.69. Therefore the subjects were categorized into Mild, moderate and severe level of death anxiety as per the above criteria. Most of the elderly (64.5%) had moderate level of death anxiety with mean score 22.82 ± 2.58 followed by severe level of death anxiety (18.5%) with mean score 29.45 ± 1.62 while 17.0 per cent of subjects had mild level of death anxiety with mean score of 15.94 ± 1.92.

Figure 1
Level of Death Anxiety

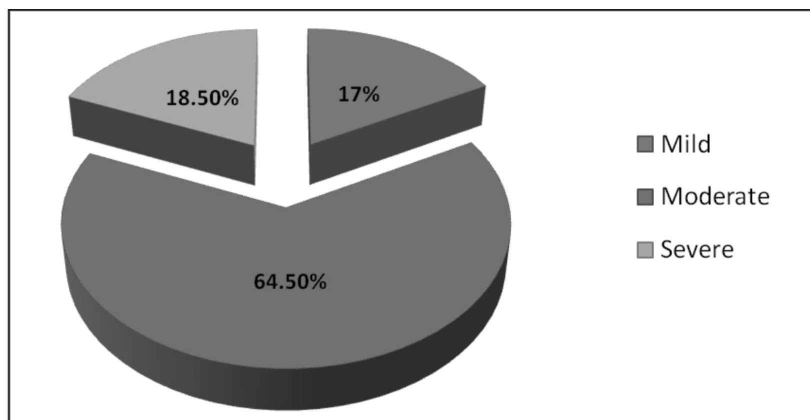

Table 3
Association of Level of Death Anxiety with Associated Factors

Factors	n	Yes Mean ± SD	n	No Mean ± SD	t statistics	
					t value	p value
Personal factors						
Suffering from any chronic medical illness.	101	23.70 ± 4.56	099	21.82 ± 4.66	2.87	0.05*
Experienced any accident/natural calamities.	090	22.64 ± 4.52	110	22.88 ± 4.92	0.35	0.72NS
Family factors						
Family members spend time with elderly.	181	22.53 ± 4.64	019	25.05 ± 4.73	2.24	0.02*
Having good relationship with spouse. (n = 161)	155	22.8 ± 4.63	005	22.0 ± 7.00	0.41	0.68NS
Getting support from family	182	22.9 ± 4.70	018	21.5 ± 4.57	1.20	0.22NS
Experiencing some sort of abuse from family members.	002	21.0 ± 0.00	198	22.7 ± 4.71	0.53	0.59NS
Having some sort of stress related to family.	076	23.8 ± 4.17	124	22.1 ± 4.89	2.51	0.01*
Financial factors						
Elderly the only earning member in family.	024	21.0 ± 5.80	176	23.0 ± 4.49	1.98	0.04*

Cont'd...

Cont'd...

Under any kind of financial debt.	001	22.2	199	22.7±4.70	0.16	0.86NS
Spiritual factors						
Thinks that he will get moksha after death.	048	24.1±4.54	152	22.3±4.67	2.38	0.01*
Pray to get good health and to delay death.	173	23.2±4.51	027	19.6±4.69	3.82	0.00**
Thinks that god will give good health to do unfinished tasks.	153	23.5±4.43	047	20.1±4.62	4.55	0.00**

NS=Non-significant

*Significant

***Highly significant*

Table 3 reveals the association of death anxiety with personal, family, social, financial and spiritual factors. Personal factors revealed that subjects who were suffering from chronic medical illness show higher level of death anxiety ($p<0.05$). Family factors revealed that the family members who didn't spend time with elderly and if the elderly had any kind of stress related to family show higher level of death anxiety ($p<0.05$). Financial factors revealed that the subjects who were not the only earning member in their family showed higher level of death anxiety ($p<0.05$). Spiritual factors showed strong positive association with level of death anxiety. The subjects who thought that they will get moksha after death, who Pray to God to get good health and to delay death and who thought that god will give good health to them do uncompleted tasks show higher level of death anxiety score ($p<0.05$)

Table 4 depicts the association of death anxiety with various socio demographic variables. It was found that death anxiety was more in female than males ($p<0.05$). The illiterate subjects had higher death anxiety than subjects with elementary, secondary and graduate level of education ($p<0.05$) and the subjects who were living only with their spouse had higher death anxiety ($p<0.05$). Regarding present occupation, subjects who were working and among them who were labourer had higher death anxiety while elderly who were farmers in their former occupation had higher death anxiety than others ($p<0.05$). Elderly who had low socio-economic status had higher

death anxiety and the subjects who had both pension and caregiver and who had only caregiver as source of income showed higher death anxiety than others ($p < 0.05$)

Table 4

Association of Level of Death Anxiety with Socio-Demographic Characteristics.

N = 200

Variables	*n*	*Mean ± SD*	*Anova/t Statistics*
1. Age (In years)			
60–70	144	22.71 ± 4.80	F = 0.57
71–80	44	22.59 ± 4.03	p = 0.56NS
81–90	12	24.16 ± 3.70	
2. Gender			
Male	103	20.52 ± 4.30	t = 8.0
Female	97	25.16 ± 3.84	p = 0.00**
3. Educational status			
Illiterate	43	24.51 ± 3.90	F = 4.62
Secondary	36	23.83 ± 4.64	p = 0.00**
Senior secondary	59	22.20 ± 4.96	
Graduate and above	62	21.50 ± 4.56	
4. Marital status			
Married	158	22.96 ± 4.64	F = 1.03
Unmarried	1	19.00 ± 4.86	p = 0.38NS
Widow/widower	37	22.40 ± 5.44	
Separated/divorced	4	19.50 ± 4.69	
5. Living with			
Spouse only	25	24.88 ± 4.78	F = 2.77
Children only	37	22.29 ± 4.90	p = 0.04*
Both spouse and children	133	22.63 ± 4.52	
Relatives	5	19.40 ± 4.69	
6. Former occupation			
Business	43	19.86 ± 4.46	F = 9.72
Professional	59	22.40 ± 4.61	p = 0.00**
Farmer	3	28.00 ± 7.81	
Labourer	36	22.88 ± 4.32	

Cont'd...

Cont'd...

Not working	59	24.93±3.73	
7. Present occupation			
Non-working	169	23.36±4.60	t=4.29
Working	31	19.58±3.91	p=0.00**
If working specify			
Business	13	17.38±3.52	t=2.98
Labour	18	21.16±3.45	p=0.00**

Discussion

In the present study, 64.5 per cent of the elderly had moderate level of death anxiety. Similar results were reported by Jo KH and Song BS (2012) revealing that 50.1 per cent of the Korean elders had some level of death anxiety. Another study by Keller, John W (1982) also revealed that middle age and late-middle age persons were significantly less anxious in regard to "evaluation of death in general" than their older and younger counterparts.

Elderly who were suffering from chronic medical illness showed higher level of death anxiety. Similar results were reported by Fortner and Neimeyer (1999) revealing that more physical and more psychological problems are predictive of higher level of death anxiety among elderly people. They study by Faisal A., *et al.*, (2010) revealed that supportive familial network is important in decreasing death anxiety among elderly.

In present study, gender, educational status, living status, employment status, health and social support were predictive of significantly higher level of death anxiety among elderly. Similarly Fortner and Neimeyer, (1999) reported that age, gender, health and social support affect the degree to which an individual experiences death anxiety.

Conclusion

All elderly have death anxiety. Most of the elderly had moderate level of death anxiety followed by severe level. Subjects suffering from chronic medical illness show higher level of death anxiety. Family members who didn't spend time with elderly and subjects who had

any kind of stress related to family showed higher level of death anxiety. Subjects who were the only earning member in their family showed higher level of death anxiety. Spiritual factors showed strong positive association with level of death anxiety. Female gender, illiterate, those living with spouse only, non working elderly, labourer and farmers and low socio-economic status had significantly higher level of death anxiety among elderly.

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Bone Health Status of Aged and Elderly South Indian Rural Women

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ABSTRACT

The present study was aimed to assess the bone health status of rural elderly women (N = 120) of two different age groups: (a) age varying from 55 years to 64 years (N=80) and (b) age varying from 65 years to 74 years (N = 40). Calcaneous Quantitative Ultra-Sound (QUS) bone densitometry was used to assess bone density and WHO classification of osteoporosis was utilized by considering the BMD T-Scores. The bone density assessment identified a definite lowering of bone mineral density with the progressive age as evidenced by relatively low levels of BMD T-Scores in elderly than aged women. Osteopenic condition was more prevalent in aged women as 40 per cent and of course considerable number of them around 31 per cent suffered from osteoporosis against only 29 per cent of normal bone status women. The striking feature in elderly women was that none of them had normal BMD T-Score indicating either osteopenia (25%) or osteoporosis (75%). The results clearly indicated poor bone health status in rural ageing population with higher incidence of low (osteopenia) and poor bone mass (osteoporosis) conditions. The findings denoted the dire need of appropriate immediate curative and preventive strategies to minimize

further age-related bone loss and the associated osteoporotic fractures.

Key words: Osteoporosis, Osteopenia, Ageing, Rural women, Bone health

The ageing process is reflected by the bone deterioration in composition, structure and function, which predisposes to osteoporosis. Osteoporosis is defined as deterioration in bone mass and micro-architecture, with increasing risk to fragility fractures. Owing to the close relationship between the ageing process of bone and the pathogenesis of osteoporosis, research on the mechanisms of age-related bone loss has increased significantly in recent years. Age-related bone loss involves a gradual and progressive decline in bone mass and strength. Markedly increased bone resorption leads to the initial fall in bone mineral density. With increasing age, there is also a significant reduction in bone formation. This is mostly due to a shift from osteoblastogenesis to increased osteoclastic activity (Demontiero *et al*., 2012).

The pathogenesis of osteoporosis is complex. In childhood and adolescent period bone formation exceeds resorption resulting in continued skeletal growth and denser, longer and heavier bones. This process slows down in adulthood and peak bone mass is attained at about 30 years of age. After this, resorption begins to exceed formation. At older ages, bone tissue is gradually lost from the skeleton in both men and women. For women, there is also a period of about 10–15 years when bone loss (especially at trabecular-risk sites such as the spine or wrist) is accelerated due to estrogen withdrawal at menopause, resulting in more than one third of bone loss from the skeleton. This accelerated rate of loss seen in women, when associated with a low attainment of peak bone mass, leads to excessive risk of future fracture (Riggs and Melton, 1983; Reid and New (1997). In view of the importance of diagnosis of bone health in aged especially in deprived communities like rural women, the present study was focused on determining the bone health status of aged and elderly women through Quantitative Ultra-Sound (QUS) bone densitometry measured at heel bone.

Methodology

Sample

The rural women of Chittooor district in Andhra Pradesh, India, who voluntarily participated in the BMD campaigns for bone mineral density testing constituted the study sample. Women of 55 to 64 years were considered as aged (n = 80) and 65 to 74 years as elderly (n = 40) with a total sample size of 120 women.

Assessment of Bone Mineral Density

The bone mineral density (BMD) measurement is the best modality of osteoporosis assessment. Several modalities are being used to test BMD. However, as the QUS is portable, non-ionizing, convenient to use and cost effective device for screening the patients at community level, it was used to diagnose osteoporosis. Bone mineral density status of each subject was evaluated on WHO-criteria of BMD-T score (T-score up to–1 = normal, –1 to –2.5 T-score as osteopenia and score below –2.5 as osteoporosis). Thus the women were categorized into three groups based on BMD T-scores which would be helpful in screening of the subjects for low bone mass and osteoporosis.

Statistical Analysis

The data was interpreted statistically using SPSS 11.5 version. The changing trends in BMD T-scores as the bone density status regressed from normal to osteopenia and to osteoporosis were predicted through calculated t-scores of each age group between normal vs osteopenia, normal vs osteoporosis and osteopenia vs osteoporosis. Mean values and standard deviations were calculated for BMD T-scores of aged and elderly women in relation to bone density status. The prevalence of osteopenia and osteoporosis was obtained as per cent values. Accordingly, the results are tabulated and analyzed.

Results

The bone health status of women was assessed mainly through BMD T-scores and WHO criteria of osteoporosis. The BMD T-scores of aged and elderly women in relation to bone status as normal, osteopenia and osteoporosis were denoted in table no–1. The extent of

changes in each group in terms of BMD T-scores from normal to osteopenia and to osteoporosis were evaluated statistically through calculated t-scores and presented in Table 2.

Table 1

Mean Bone Mineral Density (BMD) T-Scores of Aged and Elderly Rural Women according to WHO Classification of Osteoporosis

Women Group	*Mean Bone Mineral Density (BMD) T-Score ± SD*			
	Normal	*Osteopenia*	*Osteoporosis*	*Osteopenia + Osteoporosis*
Aged (n=80)	–0.61 ± (0.12)	–1.84 ± (0.22)	–3.17 ± (0.50)	–2.42 ± (0.76)
Elderly (n=40)	Nil	–1.88 ± (0.23)	–3.55 ± (0.86)	–3.15 ± (0.86)
Total (n=120)	–0.61 ± (0.12)	–1.85 ± (0.22)	–3.39 ± (0.52)	–2.72 ± (0.88)

Note: WHO Classification of Osteoporosis by BMD T-Score.

Normal: >–1.0 Osteopenia: –1.0 to –2.5 Osteoporosis: = –2.5.

Table 2

Mean Differences for BMD T-scores Among Normal, Osteopenic and Osteoporotic Women: Calculated T-values and Level of Significance

Women Group	*Calculated t-values*		
	Normal Vs Osteopenia	*Normal Vs Osteoporosis*	*Osteopenia Vs Osteoporosis*
Aged (n=80)	24.2 **	23.9**	13.6 **
Elderly (n=40)	Nil	Nil	10.8**

Note: WHO Classification of Osteoporosis by BMD T-Score.

Normal: >–1.0 Osteopenia: –1.0 to –2.5 Osteoporosis: = –2.5.

** = Significant at 1 per cent level.

The data from the table no–1 indicated that the mean BMD T-score of rural aged of –2.42 was almost nearer to osteoporotic score. The condition clearly represented much bone deterioration even

among aged rural women. The pathetic situation observed that the bone health still worsened after 64 years as evidenced by the mean osteoporotic BMD T-score of –3.15 among elderly rural women. The striking feature to be noted down that absolutely no one from elderly group had normal bone status denoting that they suffer from either osteopenia or osteoporosis. The results well demonstrated a decreasing trend of bone mineral density with the advancing age from aged to elderly women irrespective of disease condition. Whatever the variations might be, both groups were at risk levels towards the onset of osteoporosis as noticed by mean osteoporotic score of –2.72 in the total sample of 120 aged and elderly rural women.

The calculated t-values from the table no–2 identified significantly lower bone densities in aged osteopenic women than normal bone density status women. The levels of reduction were much significantly higher in aged osteoporotic women against normal women. The differences between osteopenic and osteoporotic women were also represented significantly lesser scores in osteoporotic women than osteopenic both in aged and elderly women. However, as mentioned earlier, the normal group was not found in elderly women for comparative results denoting much weaker bones in elderly rural women group.

Table 3

Frequency and Per Cent Distribution of Osteopenia and Osteoporosis Conditions in Aged and Elderly Rural Women

Women Group	*Bone Health Status: WHO-Classification of osteoporosis*			
	Normal n (%)	*Osteopenia n (%)*	*Osteoporosis n (%)*	*Osteopenia + Osteoporosis n (%)*
Aged (n = 80)	23 (28.8)	32 (40.0)	25 (31.2)	57 (71.2)
Elderly (n = 40)	Nil	10 (25.0)	30 (75.0)	40 (100.0)
Total (n = 120)	23 (19.2)	42 (35.0)	55 (45.8)	97 (80.8)

Note: Values within parenthesis indicate per cent values.

Prevalence of osteopenia and osteoporosis among aged and elderly rural women was denoted in table no–3. Only about 29 per cent of aged women had normal bone mineral density status and remaining the to the maximum extent around 71 per cent of them, suffer from either osteopenia (40%) or osteoporosis (31%). The bone health status became still worsened in elderly, where three fourth of them were affected by osteoporosis, and rest of one fourth had osteopenia and no elderly women had normal bone mineral density status. The overall prevalence including both aged and elderly women strikingly highlighted the poor bone health status as demonstrated by 81 per cent of the subjects who suffered either from osteopenia (35%) or osteoporosis (46%). The findings indicated a remarkable age-related bone loss and gradual reduction in bone mineral density with the advancing age.

Discussion

The question of how and why osteoporosis takes place is largely a matter of one's bone mineral density. Rapid and continuous bone growth and calcification occur throughout the adolescent years. Small increases in bone mineral density continue between 20 and 30 years of age. Women make less bone than do men, lose it at a faster rate and tend to live longer. Thus women start their adult years with less bone and have a longer time in which to lose bone strength. Also, bone mineral density varies among young adult women; some have much denser bone than others, perhaps because they built more bone when they were young. Some women also may adapt to lower calcium diets more easily. People who have developed more-dense bone by early adulthood can sustain greater age-related bone loss with less fracture risk compared with those who have less-dense bone. The individual cannot forego the universal biological phenomenon of ageing and the suitable solution is adhere to modifiable healthy life style measures for minimizing osteoporosis and fracture risk levels at elderly age (Matkovic *et al*, 2004).

Osteoporosis is a major public health threat worldwide. Studies have reported that Asian women have higher predisposition for osteoporosis. Though the exact prevalence is not known in India, one in four women older than 50 years is believed to suffer from

osteoporosis. The attainment of peak bone mass in adolescent years and the rate of bone loss starting during child bearing stages of a woman and during menopausal and postmenopausal are some of the major factors contributing to poor bone health in older women of India.

India with a population of 1.2 billion people is the second largest emerging economy and second most populated country in the world. Life expectancy is 67 years and is expected to increase to 71 years by 2025 and to 77 years by 2050. Currently, approximately 10 per cent of Indian population (more than 100 million) is aged over 50 years. Based on current pace of growth, Indian population is expected to grow by 16 per cent to reach 1.4 billion by 2025. From 2025 to 2050 the population will increase by a further 34 per cent, reaching 1.88 billion. Those above the age of 50 years will constitute 22 per cent of the population in 2025 and 33 per cent of the population in 2050. Thus osteoporosis is a major concern for this ageing population. The data of the present study also indicated more proneness to osteoporosis in ageing population and demands an extensive bone health research in ageing groups.

The significant finding of the study need to be considered that after 64 years of age, Indian women definitely suffer from either osteopenia or osteoporosis which seemed to be common due to a universal ageing process. This finding definitely required to be noted and taken care for immediate intervention therapeutic practices for osteoporotic elderly women of the community. Another important finding and observation of the study was a gradual reduction in bone mineral density. The bone health of the women with higher negative BMD T-scores with the advancing age and incidence of osteoporosis was observed. The significant declinations in BMD T-score were noticed as the bone density regressed from normal to osteopenia and to osteoporosis. The deteriorative bone density levels might be reflected by increased porosity in the bones and gradual degradation in the bone intact tissue and bone strength.

Usually the digestive process gradually slows in aged and the elderly women and is reflected by lowered food intakes and poor absorption which resulted in more of dietary deficiencies. On the

other hand, the cumulative effect of menopause and degradation of physiological processes of ageing enhances the bone resorption. The study found that not only had these factors, the nutritional status since the childhood, in fact the prenatal environment had greater impact in determining the bone health status of women in late years. Additionally the women experienced a series of events in the active reproductive periods from the beginning of menarche, age at marriage, pregnancies, lactation, etc. The adverse conditions like delayed menarche, early marriages and pregnancies, abortions, stillbirths might accelerated the age-related bone and become detrimental to bone loss health. These were the reasons for how and why women suffer more than men in our communities. The situation observed and evidenced by an absolute shift towards either osteopenia or osteoporosis in elderly as mentioned previously.

Nagi *et al.*, (2013) estimated the prevalence of osteoporosis in Lahore men and women using quantitative calcaneal ultra sound bone densitometry. Among male with age > 45 years, 21.6 are osteoporotic and 42.1 females are osteoporotic. Comparatively lower incidence is observed in the ages of below 45 years. It was found to be a common occurrence, affecting females over 45 years of age more than any other sub groups. Though the current research studied the gender differences, the data clearly explained the high risk condition in rural female aged and elderly population.

The cross-sectional study was conducted by Unni *et al.*, (2010) in women of 40 years old and above using DEXA measured at vertebral bone measurements L1-L4. The study reported 40 per cent of osteopenia and 23 per cent of osteoporosis among the study group. A rapid fall in BMD from 50 years onwards and more significant fall after 70 years was observed. Similar trend of results were observed in the present study, where the conspicuous fall in BMD of elderly women was noted with relatively high per cent of osteoporotic women in elderly women.

Chibber *et al.*, (2007) studied the urban-rural differences in the prevalence of osteoporosis in women between the ages of 60 to 79 years from Delhi and Rural Haryana. The study noted the prevalence of osteoporosis as 52 per cent from urban Delhi, 76 per cent from rural

Haryana and within the urban group, 73 per cent of urban low socio-economic strata groups are osteoporotic. The prevalence of osteoporosis identified as 75 per cent in rural elderly women between the ages of 65 to 74 years was in close proximity to the above study. The findings thus highlighted definite higher osteoporosis risk proneness among elderly women which should be kept in focus in the ageing process to safeguard the geriatric population.

The bone assessment data and prevalence rates of both the present and existing findings reported the high low and poor bone mass conditions in aged and elderly rural women denoting the poor bone health status. The observations demand an immediate need to educate the women on the importance of suitable measures, both preventive and curative approaches, since childhood for achieving maximum genetic potential in attaining maximum peak bone mass at late adolescence, further reducing the risk of age-related decrease in bone density and thus minimizing the levels of osteopenia and osteoporosis.

Implications of the Study

- Ageing process was identified as a universal risk factor of osteoporosis characterized by gradual reduction in bone mineral density and increasing prevalence of osteoporosis.
- The condition of poor bone health status was predominantly noticed in aged and elderly rural women with considerably low bone mineral density.
- The striking feature to be highlighted was that all elderly women suffer from either osteopenia or osteoporosis without any normal bone mineral density status.
- The existing situation among women groups demanded for an immediate appropriate intervention strategy to improve the bone health status.

Suggestions for Future Research

- Promoting and installing bone densitometry devices at hospital settings and making them available to the community at an affordable range will be useful for arriving at large scale database

for the incidence of osteoporosis precisely in many community groups.

- Formulation of suitable educational modules along with pictorial information and implementing policies effectively at war foot basis to the women folk is a challenging task for nutritionists, scientists, physicians and community level health workers.
- Inclusion of bone health as part of National Nutrition and Health Policy by the policy makers will fetch extensive awareness and bring access to the intervention strategies for better bone health at grass-root level.
- Longitudinal research studies can be planned and executed since pregnancy, lactation, adolescence period, adulthood and further geriatric life provide a clear window for arriving at both risk factors and protective factors in achieving maximum potential of peak bone mass and better restoration of bone mass in future life.
- Macro and micro nutrient studies, in vitro, in vivo and animal studies using rat models may be beneficial to understand the bone metabolic changes and search for suitable solutions in minimizing the osteoporosis risk.

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Unmet Needs Assessment of Geriatric and Pre Geriatric Lesbian, Gay, Bisexual, Transgender, Intersex (LGBTI) Individuals in Urban India

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ABSTRACT

This cross sectional study was planned to assess the unmet needs of geriatric and pre geriatric sexual minorities in an Indian city of Vadodara (Gujarat) to assist a city based NGO to design an appropriate outreach and hospice programme for them. 33 self identified as gay/lesbian/bisexual/Transgender/hijra/intersex, (elderly sexual minorities) Age = 50 were selected by Snowballing technique. A Semi structured qualitative interviews and questionnaire was developed and administered. The three types of unmet needs: social, medical and housing emerged. On the basis of the findings two types of interventions may be planned: 1) all inclusive Outreach programme and 2) Hospice programme (build an active retirement and hospice centre). The outreach programme suggests that this group should be enrolled in to Government schemes for the elderly. A geriatric social counsellor, a geriatrician are to be included in this programme. Skill identification, enhancement and income boosting initiatives, volunteer visitor services and home delivery of nutritious meals should be the part of this programme.

Key words: Homosexual, Geriatric, Urban, India, Unmet needs, assessment.

LGBTI (lesbian, gay, bisexual, transgender, and intersex) liberation movement started in India in the 1990s. Decriminalization of homosexuality by the Delhi high court in 2009 has given a great impetus and LGBTI people have increasingly become visible part of the mainstream society. Recriminilazation by the supreme court of India could not stop this process and ever more number of individuals are coming out of the closet and asserting themselves even more openly and strongly. At this juncture policy makers, clinicians, advocates and researchers in India are confronting a knowledge void in aspects relating to this community. This is a diverse population spanning across social strata, religion, region, age, caste, etc., and their needs also vary accordingly.

The elderly sub population among the sexual minority in India are nearly invisible and a silent cohort. Most of the studies done on the Indian LGBTI population are youth centric and AIDS related. Population of India is 1.2 billon and 8 per cent of them are above the age of 60 years (Census India. 2011). Ballpark estimate of prevalence of homosexuality by a recent review literature is 3.5 per cent (Gates G J. 2011). This gives an estimate that the Indian LGBTI geriatric population is around 3.36 million. This will be even higher if the pre geriatric age group (age 50 – 59) is also taken into consideration. There is hardly any information available about this silent cohort and their needs. Modern India being a predominantly homophobic society and elderly as such being vulnerable, aged LGBTI individuals are at a heightened risk. They may be subject to bullying, neglect, abuse and may be psychologically damaged by a life time of taboo and prejudice. The aim of this project is to assess unmet needs of this sub population in urban India by taking the example of the city of Vadodara, Gujarat, India. Depending on the outcomes, Lakshya Trust a city (Vadodara) based NGO (non governmental organization) working with sexual minorities would design an appropriate outreach and hospice program.

Method

Sample

58/60 years is the age of retirement in India which is also the demarking point beyond which is considered geriatric age group. However age 50 and above was chosen as the inclusion criteria for the selection of LGBTI subjects of this study because of their low life expectancy and socio economic status in India (both are the indicators of early morbidity and poor health status). Inclusion of 50–60 year olds was also intended to gauge in the pre geriatric apprehensions. The other inclusion criterion was self identification as a LGBTI individual.

There were two methodological challenges while conducting this study. One was that the elderly LGBTI population is highly invisible and closeted probably because of the social taboo associated with homosexuality. Identifying and inviting them to participate in the study was difficult. Recruitment of the participants was done under the aegis of Lakshya trust. It is a sole such non governmental organization in Vadodara working for sexual minorities. It has a strong grass root presence in the community. It appoints self identified gays/transgenders as outreach workers. Their connections and contacts in the gay community are utilized to dispense health services among themselves. We were able to identify and recruit the participants with the help of these outreach workers. The initially recruited elderly suggested their gay friends in their age group who in turn suggested theirs (snowballing technique).

33 individuals between 50 to 72 years of age participated in the study

Tool of the Study

The selection of specific needs to be assessed due to scarcity of relevant literature and lack of studies conducted earlier in the Indian context was a great challenge. To overcome this hurdle the author conducted one on one qualitative semi structured interviews with 9 participants (Refer to Annexure 1 for the open ended questions asked in these interviews). Analysis for persistent themes and ideas was done and depending on that a draft questionnaire on unmet needs was

developed. It was finalized after extensive discussions and feedback from outreach workers and other experienced staff at the NGO. The questionnaire was translated into the local language, Gujarati. They were distributed with a consent form attached. Illiterate participants were helped by an outreach worker in filling up the uestionnaire.

Results

Three categories of unmet needs emerged after analysis of nine one on one qualitative semi structured interviews are social needs, medical needs and housing needs. The important results from the questionnaire developed and administered on these three themes are as follows.

Table 1

Important Results Reflecting Unmet Social Needs:

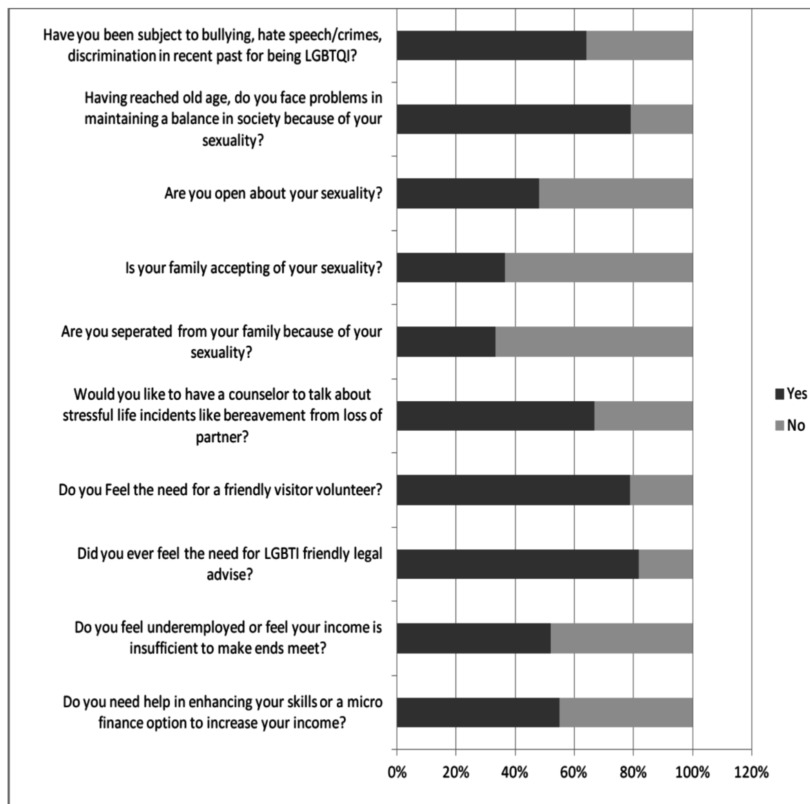


Table 2

Important Results Reflecting Unmet Medical Needs:

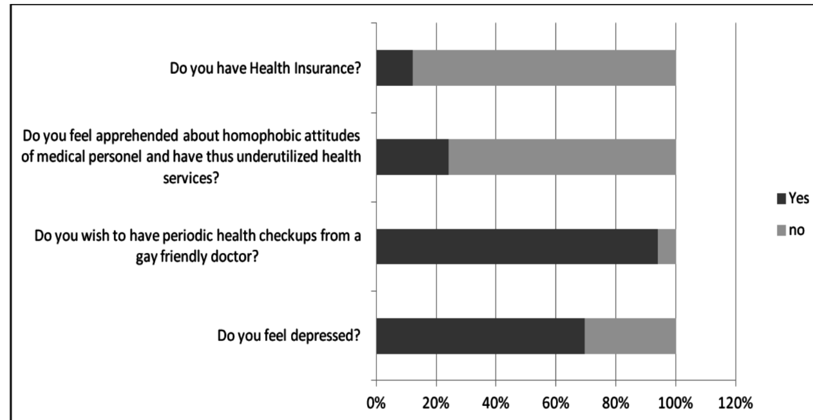
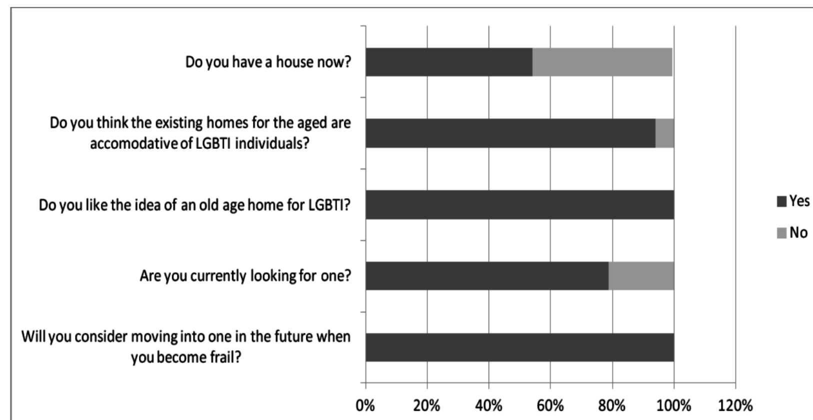


Table 3

Important Results Reflecting Unmet Housing Needs:



Observations and Discussion

Study Population

Majority (91%) of the study sample is aged < 69 i.e. the young elderly, the rest (9%) were middle elderly (70–79) and there was no

representation among the old elderly (> 80). As age increases elderly LGBTI population become increasingly invisible probably because of their frailty and increasing vulnerability (Michsel D. Shankle *et al.*, 2003). 94 per cent were male and 6 per cent were intersexes. The absence of lesbian and bisexual women is striking. We approached a woman's/feminist group and a NGO working for female sex workers; both sole such organizations in the city of Vadodara to recruit elderly women. However we were confronted with their absent visibility. When questioned the staff and counselors there, they stated that men have greater freedom than women to choose to live their sexuality. Even though some young lesbian and bisexual women rebel and come out, in most cases it is momentary and they are forced back into heterosexual marriages. In a patriarchal system women are financially and socially dependent on men and so have no other option but to get married to a man for survival and protection (Fullmer EM *et al.*, 1999). In our sample among self identified gay men 55 per cent of them are married and since they are bread earners they can have their say and afford to lead parallel gay lives. Elderly gay men are doubly invisible because of heterosexism and ageism and elderly lesbians are triply invisible because of heterosexism, ageism and sexism (Traies J E. 2009). Nearly 85 per cent stated their sexual orientation as kothi (passive gay men). Most of the panthis (active gay men) and bisexual men find it easy to camouflage themselves in the heteronormative society. They engage in homosexual sex activities but refuse to self identify and publicly associate themselves with the homosexual identity or the homosexual folklore (Balsam K F, Mohr J J. 2007).

Around 55 per cent are either never married or widowed/divorced/separated (33%+12%) and around 48.5 per cent have no children.

Unmet Social Needs

64 per cent of them in the recent past experienced bullying, hate speech/crime, discrimination from the society due to their alternate sexuality. Having reached old age 79 per cent of them are facing problems in maintaining a balance in the society because of their sexuality. This could be due to the social stigma and discrimination

associated with homosexuality (Kelly J. 1977). However, 85 per cent felt safe in the city of Vadodara, that they have social spaces to express and be themselves and 91 per cent thought they could continue to live independently. Here I would like to draw attention to the theory of "Crisis competence" which states that years of discrimination and struggle make LGBTI individuals well equipped to deal with adversities of life and ageing (Ritter K Y and Temdrup A I. 2002). We can create LGBTI elderly safe societies only through sustained activity of engagement, awareness and sensitization. Lakshya trust should include in its agenda a campaign for LGBTI elderly visibility and rights within the LGBTI community and outside.

Nearly 51.5 per cent are not open about their sexuality and 64 per cent of their families are not accepting of their sexuality. 36 per cent live alone and away from family. 33 per cent said that they are separated from family because of their sexuality. Being in the closet is a mentally active, energy draining process requiring being on alert all the time with age they will increasingly become dependent on their family, relatives, neighbors, friends, social services and thus making them less independent from their heterosexist/homophobic attitudes. Elderly are perceived or expected to be sexless and because LGBTI elderly are identified by their sexuality they may experience greater homophobia than their younger counterparts (Claes JA, and Moore W. 2000). The fear of discrimination prevents them from seeking much needed help and reinforces social isolation. 55 per cent feel lonely and 67 per cent feel the need for a gay friendly counselor to talk about stressful life events. Feeling of loneliness is higher among the homosexuals due to various reasons such as lack of steady relationships, lack of social embededness, being separated from family, because of non acceptance of their sexuality, etc., (Fokkema T, and Kuyper L. 2009).

Many (79%) felt the need for a friendly visitor volunteer who can help in grocery/medicine shopping, hospital visits, socializing, etc. 70 per cent feel it to be tasking to cook and so prefer meals to be delivered home daily. Lakshya trust could design an intergenerational volunteership where young able people can help the needy elderly. It could consider extending nutritious meal services to the elderly from

its existing community kitchen. Many also liked get togethers, pilgrimages and such social recreational activities organized for them.

85 per cent of them were literate. However nearly all of them are educated not beyond secondary level and only one person was a graduate. Nearly 30 per cent of them are unemployed or beg (ask for alms) for a living and 42 per cent of them are daily wage laborers. 30 per cent of them earn less than 1 dollar a day (1$ = Rs 50 i.e., Rs 1,500 a month) and 45 per cent earn between Rs 1,501–5,000 a month. 52 per cent felt their income is insufficient and 55 per cent needed help in enhancing their skill or a micro finance option to increase their income. It is only a myth that LGBTI community is affluent and well to do. In fact they are more likely to be poor due to discrimination in education and employment opportunities (Sears B, and Badgett L. 2012). About 27 per cent of them have no government identity card in their name. And a majority of them (88%) are not aware of the government schemes for poor and elderly. Again Lakshya Trust could facilitate LGBTI elderly in registering with the state and availing the schemes that they are eligible for.

82 per cent felt the need for LGBTI friendly legal advice. This is one more service that Lakshya Trust can extend to LGBTI elderly as a part of its outreach program. Knowledge about Maintenance and Welfare of Parents and Senior Citizens Act, legal protection against elderly abuse and neglect, information about property inheritance disputes could be of great help to the community.

67 per cent experience no spiritual conflict because of their sexuality. This is an important observation given the inclusivity of queer identity in the Indian mythology and tolerance of Indian Islam towards trangenders (Hijras). Since they have to live with both religion and homosexuality, they come to terms with both and reconcile over a period of time (Meladze P and Brown J. 2015).

Unmet Medical Needs

Only 27 per cent of them were screened and diagnosed with diabetes/hypertension/heart disease/stroke/dementia (diseases of ageing) and almost all of them diagnosed are receiving treatment. 70 per cent feel depressed and 15 per cent thought of suicide. 45 per cent

consume alcohol or tobacco. Constant discrimination and stigma has an adverse effect on physical and mental health (Steve, W. Cole *et al.*, 1996, Bostwick et al., 2010). Though, only 24 per cent apprehended of homophobic attitudes of medical personal, 94 per cent preferred periodic health checkups from a gay friendly doctor. Homophobia can be direct as hate speech, bullying and abuse. It can also be indirect when heteronormaility is assumed and health care providers don't even acknowledge the possibility of homosexual identity (Hughes M. 2007). Health services will be more approachable if it is LGBTI sensitive. However all of them rated their health as good or average. We can understand this disparity in the light of crisis competence theory (Ritter K Y, and Temdrup A I. 2002). The fact that they are in touch with the NGO means that they are engaged with the community. It is observed that this engagement helps the community members themselves in coming to terms and accepting their ageing process (Quam JK, Whitford GS. 1992). 88 per cent have no medical insurance. Lakshya trust can extend its clinic based health services to the homes of frail elderly.

Unmet Housing Needs

Nearly 51.5 per cent are not open about their sexuality and 64 per cent of their families are not accepting of their sexuality. 36 per cent live alone and away from family. 33 per cent said that they were separated from family because of their sexuality. Around 55 per cent are either never married or widowed/divorced/separated (33% + 12%) and around 48.5 per cent have no children. Most of them are poor, have no insurance and pension plans. All these are risk factors for probable homelessness in the future. 45.5 per cent of them have no home. 42 per cent felt that no friend or family member would help them stay home in the future when they experience age related disability. This certainly shows the need for an old age home for the LGBTI community.

All liked the idea of an old age home for the community. 79 per cent were currently looking for one such home and all said they would consider moving into one in the future when they become frail. The chances of homophobia outside one's own house are unknown and

uncalculated. So, LGBTI elderly do tend to opt for services which are specially created for them or are sensitized to their needs (Neville S, and Henrickson M. 2010). All preferred it to be located in and around the city. Surprisingly 94 per cent said the existing homes were accommodative of LGBTI individuals. Lakshya trust should start sensitizing the existing old age homes to the needs of LGBTI community and plan to start an old age home exclusively for the community.

Limitations: The small number of participants pooled by snowballing technique from a localized NGO may bring in selection bias. They may not be representative of the general LGBTI population of the city since these individuals by the nature of their relationship with the organization are more socially engaged or connected. We might have missed the closeted and the old elderly subset of population who are invisible and probably have greater degree of needs (Orel N. 2004). We have also definitely missed out on women and upper class elderly. However the significant findings from this study should prompt further research on a larger scale.

Conclusion and Suggestions: There are many social, medical and housing needs of the elderly LGBTI urban Indians that are unmet. A majority of them are facing discrimination, problems because of their ageing and sexuality, of families not accepting their sexuality, insufficient incomes, etc. A majority of them wanted counsellor service, volunteer service, LGBTI friendly legal advisor, income boosting measures, LGBTI friendly health service and old age home for LGBTI community. From the above results two types of interventions can be suggested for Lakshya Trust and they are as follows-

An Outreach programme

- Geriatric counselor for tackling bereavement, social problems, suicidal ideation, depression, loneliness, addiction, etc.
- Geriatrician who is LGBTI friendly for periodic health check ups.
- Facilitator for acquiring govt identification cards, give information about govt schemes for elderly and poor and help them enroll.

- Actively engage them in skill identification, skill enhancement and financial empowerment.
- Friendly volunteer visitor service.
- Home delivery of nutritious meals from its community kitchen.
- LGBTI sensitive and aware Legal advisor.
- Organize get-togethers, pilgrimages and other socializing events.
- Campaign for LGBTI elderly visibility and rights within the community and outside.
- Carry out sensitization program in other old age homes in the city to be inclusive of LGBTI individuals.

A Hospice Programme

- Start a shelter for the elderly homeless and poor.

Acknowledgement: I profusely thank Prince Manvendra Singh Gohil, Sylvester Merchant both trustees at Lakshya trust for giving an opportunity and securing all the logistics around conducting this study. My sincere thanks to Dr Bharat for helping in translation. Last but not the least is my gratitude towards the staff and outreach workers of Lakshya Trust for their help in executing the study.

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Annexure

Table 1

Showing Demographic Characteristics of the Sample

Characteristic	*N (%)*
Age	
50–59	24(72.7)
60–69	6(18.2)
70–79	3(9.1)
Biological sex	
Female–	
Male	31(94)
Intersex	2(6)
Gender identity	
Female	4(12)
Male	23(70)
Intersex	2(6)
Transgender/hijra	4(12)
Sexual orientation	
Kothi	28(85)
Panthi	1(3)
Double decker	2(6)
Gay–	
Bisexual	2(6)
Education	
Illiterate	5(15.2)
Primary (1–5)	14(42.4)
Secondary (6–10)	13(39.4)
Higher secondary–	
Graduation	1(3)
Employment	
Salaried	6(18.2)
Self employed	3(9.1)
Daily wage labourer	14(42.4)
Unemployed	7(21.2)
Begging (asking for alms)	3(9.1)
Monthly income Rs	
< 1,500	10(30.3)
1,501–5,000	15(45.4)
5,001–15,000	3(9.1)
> 15,001	5(15.2)
Marital status	
Never married	11(33.3)
Married	18(54.6)
Partnered–	
Widowed/divorced/separated	4(12.1)
Have children	
Yes	17(51.5)
No	16(48.5)

Table 2

Showing Unmet Social Needs

S. No.	Questions Asked to Access Social Needs	Yes(n) (%)	No(n) (%)
1	Have you been subject to bullying, hate speech/crime, discrimination in recent past for being a LGBTI?	21(64)	12(36)
2	Do you feel safe in Baroda as a LGBTI identified person?	28(85)	5(15)
3	Having reached old age, do you face problems in maintaining a balance in society because of your sexuality?	26(79)	7(21)
4	Do you have a government identity card in your name?		
	No	9(27.3)	–
	Election card	24(72.3)	–
	Pan card	8(24.2)	–
	Driving liscence	3(9.1)	–
	Adhaar card	5(15.2)	–
	Ration card	15(45.5)	–
	BPL card	4(12.1)	–
5	Are you a beneficiary of any government scheme?	4(12.1)	29(87.9)
6	Are you open about your sexuality?	16(48.5)	17(51.5)
7	Is your family accepting of your sexuality?	12(36.4)	21(63.6)
8	Do you live with your family/friends/relatives/alone?		
	Family	21(63.7)	–
	Friends	1(3)	–
	Relatives	1(3)	–
	Alone	10(30.3)	–
9	Are you separated from your family because of your sexuality?	11(33.3)	22(66.7)
10	Do you feel lonely?	18(54.5)	15(45.5)
11	Would you like to have a counselor to talk about stressful life incidents like bereavement from loss of partner?	22(66.7)	11(33.3)
12	Do you think you can live independently?	30(90.9)	3(9.1)
13	Do you think any friend or family member would help you stay at home when you experience age related disability?	19(57.6)	14(42.4)
14	Do you feel the need for a friendly visitor volunteer?	26(78.8)	7(21.2)
15	What can the visitor volunteer help you in?		
	Shopping weekly groceries, medicines, etc.	12(36.4)	–
	Hospital visits	19(57.6)	–
	Spending time	20(60.6)	–

Cont'd...

Cont'd...

	Driving you to your relatives, friends, etc.	9(27.3)	–
16	Do you feel tasking to cook and so prefer meals to be delivered at home daily?	23(69.7)	10(30.3)
17	Do you experience a spiritual conflict because of your alternate sexuality?	11(33.3)	22(66.7)
18	Do you have social spaces to express and be yourself?	28(84.9)	5(15.1)
19	What kind of recreational activity you prefer?		
	Get togethers	13(39.4)	–
	Pilgrimages	27(81.8)	–
	Knowledge enhancing workshops	10(30.3)	–
	Seminars or ________________	7(21.2)	–
20	Do you feel under employed or feel your income is insufficient to make ends meet?	17(51.5)	16(48.5)
21	Do you need help in enhancing your skills or a micro finance option to increase your income?	18(54.5)	15(45.5)
22	Did you ever feel the need for LGBTI friendly legal advice?	27(81.8)	6(18.2)

Table 3

Showing Unmet Housing Needs

S. No.	*Questions Asked to Access Housing Needs*	*Yes(n)(%)*	*No(n)(%)*
1	Do you have a house now?	18(54.5)	15(45.5)
2	Do you have necessary things at home to lead a comfortable life?	16(48.5)	17(51.5)
3	Do you think the existing homes for the aged are accommodative of LGBTI individuals?	31(93.9)	2(6.1)
4	Do you like the idea of an old age home for LGBTI?	33(100)	0(0)
5	Where do you like this old age home to be located?		
	City	24(72.7)	–
	Around city	9(27.3)	–
	Village		–
6	Are you currently looking for one?	26(78.8)	7(21.2)
7	Will you consider moving into one in the future when you become frail?	33(100)	0(0)
8	Do you think you can afford a decent accommodation?	24(72.7)	9(27.3)

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