MURALISANKAR P R
Department of PUBLIC HEALTH, MADRAS MEDICAL COLLEGE AND GOVERNMENT GENERAL HOSPITAL

Abstract:
INTRODUCTION Loneliness typically includes anxious feelings about a lack of connectedness or communality with other beings, both in the present and extending into the future. As such, loneliness can be felt even when surrounded by other people. With ongoing economic development and the consequent changes in family structure and relationships, the elderly lose their relevance and significance in their own households and face problems.

OBJECTIVE To estimate the proportion of loneliness prevalent among the study group of the elderly and to assess various health problems associated with loneliness among the elderly.

METHODOLOGY This cross sectional study was done among aged persons of age 65 years, of both gender in Chennai (N=400). Data collected were analyzed using Chi square test.

RESULTS Among the study participants, the prevalence of loneliness was found to be 80.5 percentage. Males had 75.4 percentage (n=181) prevalence of loneliness when compared to females who had 88.1 percentage (n=141). People living with their spouse had 79 percentage (n=218) prevalence of loneliness, people who were widow or widower who had 83.9 percentage (n=104), people living with their son or daughter or relatives had 79 percentage (n=218), people who were not living with their son daughter relatives who had 83.9 percentage (n=104), people suffering with 2 diseases had 72.3 percentage (n=188) prevalence of loneliness when compared to people suffering with more than two diseases had 95.7 percentage (n=134). The prevalence of loneliness was more among females, people living alone, people suffering with more number of diseases. The prevalence of the various health related problem reported by the study participants were Diabetes mellitus (64 percentage), Ortho related problems (47 percentage), Hypertension (45.5 percentage), Cardiac problems (40.5 percentage), GIT problems (7 percentage), Skin problems (5.5 percentage), Pulmonary problems (4 percentage), others (2 percentage).

CONCLUSION Loneliness is common among elderly people and the prevalence of loneliness increases with increased number of diseases. There needs to be an increased focus on initiating intervention strategies to combat loneliness and thereby improve quality of life and functioning in the elderly.


INTRODUCTION:
Loneliness is a complex and usually unpleasant emotional response to isolation or lack of companionship. Loneliness typically includes anxious feelings about a lack of connectedness or communality with other beings, both in the present and extending into the future. As such, loneliness can be felt even when surrounded by other people. The causes of loneliness are varied and include social, mental or emotional factors. Research has shown that loneliness is widely prevalent throughout society among people in marriage, relationships, families, veterans and successful careers. It has been a long explored theme in the literature of human beings since classical antiquity. A sense of loneliness is associated with an individual's evaluation of their overall level of social interaction and describes a deficit between the actual and desired quality and quantity of social engagement. Three related but not identical concepts should be distinguished: 'being alone' (time spent alone), 'living alone' (simply a description of the household arrangements) and 'social isolation' (which refers to the level of integration with individuals and groups in the social environment). Whilst there is some commonality between these concepts, not all the overlaps are clear terms should not be used interchangeably. Townsend (3) De Jong Gierveld (4); Victor et al(5). At least four salient approaches and perspectives have been used in investigations of loneliness in later life: peer-group focus studies (cross sectional variations in the experience of loneliness in one cohort); age related studies (changes in loneliness in a cohort as it ages); generational contrasts (cross-sectional variations in loneliness among different age groups); and contrasting cohort studies (variations in the cross-sectional and longitudinal experience of loneliness in different cohorts and at different times) Victor et al(9). The focus of this paper is upon peer-group and age-related aspects of loneliness. Loneliness is common among older people. It is related to several characteristics that impair the quality of their life, like depressive symptoms and decreased subjective health. Loneliness may lead to cognitive decline, increased need of help and use of health services, as well as early institutionalization. With the increasing life expectancy at birth, the proportion of elderly people is also increasing worldwide. Projections indicate that by the year 2020, there will be 470 million people aged 65 and above in developing countries, more than double the number in developed countries. The age structure of the population is changing as the proportion of elderly persons is increasing.
With ongoing economic development and the consequent changes in family structure and relationships, the elderly lose their relevance and significance in their own households and face problems. There are very few studies which consider the effect of health problems on loneliness. Hence it was considered important to know the prevalence of loneliness among the elderly and the effect of their health problems on loneliness.

**JUSTIFICATION**

Loneliness may be comparatively higher among older age group due to factors like unemployment, less income, deafness, poor vision etc.

Older age people suffer with various diseases mainly non communicable diseases which may be influenced by psychological risk factors.

**OBJECTIVES:**

1) To estimate the proportion of loneliness prevalent among the study group of the elderly. 2) To assess various health problems associated with loneliness among the elderly.

**METHODOLOGY:**

Study design : Cross sectional study  
Study place : Chennai  
Study duration : September 2015 to January 2016  
Study population: Elderly people aged above 65 years in Chennai.

**CASE DEFINITION FOR LONELINESS:**

As per UCLA loneliness scale those above 20 score have been considered as having “loneliness” as they struggle with social interaction and experience frequent loneliness.

**SAMPLE SIZE**

The sample size is calculated based on assumption that 50% of elderly people will have prevalence of loneliness. Considering Confidence level of 95%, with relative precision of 10% with 10% excess sampling to account for non-response, the sample size derived is 423. Sample size was calculated using the formula:

\[
N = \frac{z^2pq}{d^2} \\
= \frac{1.96^2 \times 0.5 \times 0.5}{0.1^2} \\
= 384.16 \\
\text{Allowing a 10% non-response rate the sample size comes around 423.}
\]

**SAMPLING METHOD**

Multi-stage sampling method was used. First Stage: Chennai corporation had 15 zones, 1 zone was selected by simple random sampling. Second Stage: From selected zone, 5 health posts were selected by simple random sampling method. Third Stage: From areas under each selected health post, 80 people was selected by systematic random sampling method (every 3rd house selected) to get the required sample size.

**TOOLS**

Pretested semi-structured questionnaire was developed based on review of literature, opinion from experts in the field of Community Medicine and the materials from various sources. It consists of socio demographic details, Diseases which they are suffering, The UCLA (University of California, Los Angeles) loneliness scale loneliness scale for assessment of prevalence of loneliness. The UCLA Loneliness Scale is a test that helps psychologists and counsellors assess subjective feelings of loneliness or social isolation. This is the most common and widely used measure of loneliness with over 500 citations in the literature. The original test was created at the end of 1970s. Since then, updates have been made to it. The UCLA Loneliness Scale used currently was published in 1996. A 10-item scale designed to measure one’s subjective feelings of loneliness as well as feelings of social isolation by rating each item, where people with score 15-20 are considered as having normal loneliness and are able to operate comfortably. Anyone more than 20 score are considered as having “loneliness” that affects their social interactions and experience frequent loneliness.

**DATA COLLECTION**

Data collection done in the PK garden of Chennai corporation after obtaining official permission from the Chennai corporation; The Director, Institute of Community Medicine, Madras Medical College; The Dean, Madras Medical College and Institutional Ethics committee, Madras Medical College. After explaining the purpose of the study, informed consent was obtained from the selected participants and strict confidentiality was maintained. The semi-structured questionnaire, which includes socio demographic details of the patient and UCLA Loneliness Scale of loneliness to access the prevalence of loneliness was administered to them. Data was entered into MS Excel and analysis was done using SPSS software.

**RESULTS**

* Among 400 elderly people interviewed, 240 were males and 160 were females. The age of study participants ranged from 65 years to 80 years. Out of them, 276 were living with their spouses and 124 were widows/widowers. The demographic details of the study participants were shown in Table 1.

**Figure 1:** Prevalence of Loneliness among the participants

**Table 1:** Demographic details of the study participants

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>Frequency (N=400)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the participants</td>
<td>65 to 69 years</td>
<td>282</td>
<td>70.5%</td>
</tr>
<tr>
<td></td>
<td>70 and above 70 years</td>
<td>118</td>
<td>29.5%</td>
</tr>
<tr>
<td>Sex of the participants</td>
<td>Male</td>
<td>240</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>160</td>
<td>40%</td>
</tr>
<tr>
<td>Educational Status</td>
<td>Literate</td>
<td>96</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>Literate</td>
<td>304</td>
<td>76%</td>
</tr>
<tr>
<td>Living with son or daughter or relatives</td>
<td>Yes</td>
<td>169</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>232</td>
<td>58%</td>
</tr>
<tr>
<td>Living with couple or widow/widower</td>
<td>Yes</td>
<td>276</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>124</td>
<td>31%</td>
</tr>
</tbody>
</table>

Prevalence of loneliness:

Among the study participants, the prevalence of loneliness was found to be 80.5%
The association between gender and prevalence of loneliness was statistically significant. The prevalence of loneliness among females is more than that of males. People living with their son/daughter/relatives had 79% (n=218) prevalence of loneliness when compared to people who were not living with their son/daughter/relatives who had 83.9% (n=104). The association between, people living with their son/daughter/relatives and prevalence of loneliness was statistically significant.

Table 5: Cross tabulation between health problems reported and loneliness

<table>
<thead>
<tr>
<th>Health problems of study participants</th>
<th>Loneliness</th>
<th>Test</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
<td>222(66.7%)</td>
<td>54/13.3</td>
<td>2 = 17.519</td>
</tr>
<tr>
<td>HT</td>
<td>137(71.3%)</td>
<td>45/24.7</td>
<td>2 = 5.800 df = 4</td>
</tr>
<tr>
<td>CARDIAC</td>
<td>159(81.1%)</td>
<td>3/1.9%</td>
<td>2 = 5.621 df = 4</td>
</tr>
<tr>
<td>GIT</td>
<td>23(78.6%)</td>
<td>6/21.4%</td>
<td></td>
</tr>
<tr>
<td>LUNG</td>
<td>12(79.8%)</td>
<td>4/25.0%</td>
<td></td>
</tr>
<tr>
<td>SKIN</td>
<td>18(81.8%)</td>
<td>4/18.2%</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>322(80.5%)</td>
<td>78/19.5%</td>
<td></td>
</tr>
</tbody>
</table>

The association between people suffering with Diabetes mellitus, Hypertension, cardiac problems, ortho problems and loneliness was statistically significant (table 5). DISCUSSION

The Prevalence of loneliness among >65yr old people was 80.5% as per this study. The highest level of loneliness was observed in those aged >65 years compared to adults in victor CR1 (18). Whereas in this study, the association of loneliness with increasing age was not statistically significant. It was found that loneliness mean score was significantly higher in females as compared to males. Studies by Gangrade (15) and Singh have reported more loneliness in females than in males. Contributory factors for higher loneliness in females were loss of companion, illiteracy, less social contacts and maltreatment by the family members. It has been found that loneliness was higher among the aged who were living alone as compared to those who were living with spouse. It is possible for them to discuss their personal problems with their partner.
Similarly, Gurudas (12) observed that men who lived with their spouse had more satisfaction with life than those who had lost their wife. Jindal (13) found that isolation was more prevalent among the widowers than among the married ones. It was observed that, loneliness was significantly lower in the elderly study people, who were living with the family as compared to those who were living alone. Similarly, Nayyar (14) observed that aged living with the family were happier than those living alone.

Of the total 400 elderly persons studied, 95% had one or more health-related problems, whereas Ray (9) observed the same in 81.3% and Saraswati (17) in 72.4% among the elderly people. There were on an average 2 health-related complaints per aged ill person, whereas Padda (16) and Parvan (17) reported the corresponding value as 2.55 and 2.62 respectively.

The prevalence of the various health related problem reported by the study participants were Diabetes mellitus (64%), Ortho related problems (47%), Hypertension (45.5%), Cardiac problems (40.5%), GIT problems (7%), Skin problems (5.5%), Pulmonary problems (4%), others (2%). Non Communicable diseases were most common health problem reported in this study. The study showed significant association between the number of health problems and loneliness. People suffering 2 diseases had higher prevalence of loneliness than people with <2 diseases. Among the health problems reported, Diabetes mellitus, Hypertension, Cardiac and ortho related health problems was statistically significantly associated with loneliness. The temporality and biological plausibility of this relationship could not be established with this study.

Being old, week, suffering with >1 disease and immobile makes the aged seldom move out or approach for help and consultation. Loneliness has detrimental influence on health of the aged (both sexes); and leads to progressive spontaneous reduction of daily milieu and social requirements, as well as an impression of dependence that cannot be easily overcome.

**RECOMMENDATIONS**

1) As the prevalence of loneliness was higher, screening of all elderly people for loneliness has to be done.
2) Community based support groups may be established for elderly.
3) Qualitative studies may be undertaken to understand the issues in depth.
4) Special geriatric services should be started in the hospitals as the majority of the aged have one or more health-related problems.

**LIMITATION**

In the present study, the health problems of study participants were only reported, whereas health problems which the study participant was unaware, was not investigated. The study was done in urban setting only.

**Conclusion**

Loneliness is common among elderly people and the prevalence of loneliness increases with increased number of diseases. There needs to be an increased focus on initiating intervention strategies to combat loneliness and thereby improve quality of life and functioning in the elderly.

**REFERENCES**