

## **Influence of Family Structure on Recent Trends of Ageing Process**

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### **Abstract**

*The demographic background of the elderly plays a pivotal role in the health and health related aspects of the old age population. In India, where the family has an obligation to care for the elderly, the consequences of rapid declines in fertility and mortality on elderly makes living arrangements an important issue in the field of population and development. The study was conducted in the context of Kerala with the purpose of finding out the influence of family structure on the health of the aged. The data was collected through field work and it was a descriptive type of study. The analysis was carried out with definite dependent and independent variables. The study shows that the family size plays an important role in the deterioration health of the aged, the perception about their health condition, the care during their illness. It was also clear from the study that feeling of loneliness and ability of adjustment with the family members varies significantly with the family size. The analysis shows that the disease structure particularly the prevalence of both communicable, non-communicable diseases and occurrence of multiple diseases are more prone to those who belong to large families.*

**Keywords:** *Family structure, Ageing process, Geriatric health, Elderly, Old age, Living arrangements.*

### **Introduction**

One of the major features of demographic transition in the world has been the considerable increase in the absolute and relative numbers of elderly people. This has been true especially in the case of developing countries like India, where ageing is occurring more rapidly due to the decline in fertility rates combined by the increase in life expectancy of people achieved through medical interventions. Geriatric health is influenced by many factors like age, gender, lifestyle habits, education, food habits, residence, marital status, financial wellbeing, family size and structure, as well as cultural traditions such as kinship patterns, the availability of social services and social support and the physical features like housing structure and also that of local communities.

### **Methods**

The main objective of the study was to understand the influence of family structure on the recent trends of ageing process with special emphasis on health problems in Kerala context. The hypothesis formulated was family size influences the occurrence of psychological problems among the aged. Feeling of loneliness among the old is felt more among those with smaller family sizes. The study was mainly extended over the relevant areas in the State of Kerala. Population of the study consists of individuals 60 plus and who are permanent residents of Kerala both males and females. By way of sampling procedure, systematic sampling method was adopted in the study. Sample item was selected at random from different strata (districts) so as to have adequate representation from all areas with the help of Census reports. Random number table was used for randomization. Sample size was suitably fixed as 710. A pre-test was conducted among 53 items from among the population of the study based. An interview guide was prepared for the purpose. The final interview schedule or research tool was prepared on the basis of the observations obtained from the pre-test which was finally used for data collection proper. Both primary and secondary were collected for the study. Primary data were obtained from the sample items located for data collection proper. Secondary data was collected from all available sources relevant to the problem of study like the already published work in the field, reports, and official documents available as well as individual cases. The collected data is processed with respect to definite dependent and independent variables identified for the study. The analysis is

carried out to bring out the results of the study. Chi square test adopted for testing the hypothesis selected.

## Results

While considering the family size and general health condition, those who have a smaller family size, higher is the perception about their health condition. It is 69.9% who are having a family size less than 5 and 30.06% who are having a family size 5 and above. It is clear from the study that higher the family size, higher is the deterioration of health among the aged. Observation on activities during old age and family size reveals that those who belong to the smaller family size less than 5 (37.4%) go for regular walks and only 6.7% are spending their time in conversing with others while those who belong to the large family size of 5 and above 38.3% spend their time mostly for watching TV and 26.4% go to visit worship places / tourist places and relatives. On enquiring about the care during illness during old age with respect to the family size it has been found that the majority (76.2%) of those who belong to the larger family size of 5 and above are getting adequate care during their illness. While examining the influence on the number of family members on the ability to adjust at home it is seen that slightly less than the majority (48.37%) who family size is smaller than 5 are always able to adjust well at home. Only 10.5% among those who are not able to adjust well at home are having a larger family size of 5 and above. The feeling of loneliness is higher (77.5%) among those who are having a smaller family size. Chi-square test also shows that the two variables are significantly related. While assessing the influence of family size on the occurrence of diseases 96.7% having diseases with the smaller family size of under 5 and 95.45% having diseases belong to the larger family size of 5 and above. The communicable diseases are more among the old and those who belong to the larger family size of above 5 (94.3%). In the smaller family group non, communicable diseases are present among 96.7% of the study sample. The prevalence of multiple diseases is more among (94.3%) with those who belong to the larger family size of above 5. In both cases the major health problems present is cardiac / hypertension related followed by diabetes and gastro-intestinal problems. It is 97.2%, 96%, and 90.2% respectively in the case of the sample whose family size of less than 5. It is 88.7%, 87%, and 68.6% respectively in the case of the sample with the larger family size of 5 and above.

## Discussion

During the later years the number of members in the family affects many factors including health and wellbeing. Here in the current study on examining the influence of family structure on the perception of their own general health condition, among the respondents it was found that most of them (63.12%), of those whose family size is less than 5 think that their general health is good and only 19.2% among them perceive it as bad. While 48.5% of the respondents whose family size is more than 5 reported that their general health is bad and 24.7% among them think of it as good. On the other point of view those who perceive their health condition as good (43.09%), a great majority (69.9%) having family size of less than 5. So, the study reveals that smaller the family size, higher is the perception about their health condition as being better (Table 1).

**Table 1.** Family Structure & General Health

| General Health \ Family Size | General Health         |                       |                       | Total          |
|------------------------------|------------------------|-----------------------|-----------------------|----------------|
|                              | Good                   | Average               | Bad                   |                |
| Less Than 5                  | 214[63.12%]<br>[69.9%] | 60[17.7%]<br>[37.7%]  | 65[19.2%]<br>[26.5%]  | 339<br>[47.7%] |
| 5 And Above                  | 92[24.7%]<br>[30.06%]  | 99[26.7%]<br>[62.26%] | 180[48.5%]<br>[73.4%] | 371<br>[52.2%] |
| Total                        | 306[43.09%]            | 159[22.39%]           | 245[34.5%]            | 710            |

While considering the relationship between number of family members and deterioration of health among the aged, it was evident from the study that the majority 61.6% of the sample, whose family size is less than 5 reported that there is no deterioration of their health condition while 12.6% reported that their health is deteriorating. 46.9% of the sample whose family size is greater than 5 thinks that

their health is deteriorating, but only 35.5% of them think that there is no deterioration. Again a closer look at the data suggest that those who reported that there is no deterioration in their health condition, the majority 61.2% belongs to those who are having family sizes of less than 5 and those who reported that deterioration is higher, the majority 80.2% belongs to those whose family size is greater than 5. So higher the family size, higher is the deterioration to their health among the aged. (Table 2).

Table 2. Family structure & deterioration of health

| Deterioration Of Health<br>Family Size | Deterioration Of Health |                     |                      | Total         |
|--|-------------------------|---------------------|----------------------|---------------|
|  | No                      | To Some Extent      | Very Much            |               |
| Less Than 5                            | 209[61%]<br>[61.2%]     | 87[25.%]<br>[57.2%] | 43[12.6%]<br>[19.8%] | 339<br>[47.7] |
| 5 And Above                            | 132[35%]<br>[38.7%]     | 65[17.%]<br>[42.7%] | 174[46.%]<br>[80.2%] | 371<br>[52.2] |
| Total                                  | 341[48%]                | 152[2%]             | 217[30.%]            | 710           |

On enquiring about the care, they are receiving during their illness in their old age with respect to the family size it was observed that 67.74% of the respondents who reported that the care they are getting during illness is adequate, 58.8% belongs to the larger family sized group. So higher the family size, higher is the care they are getting during their illness. (Figure1)

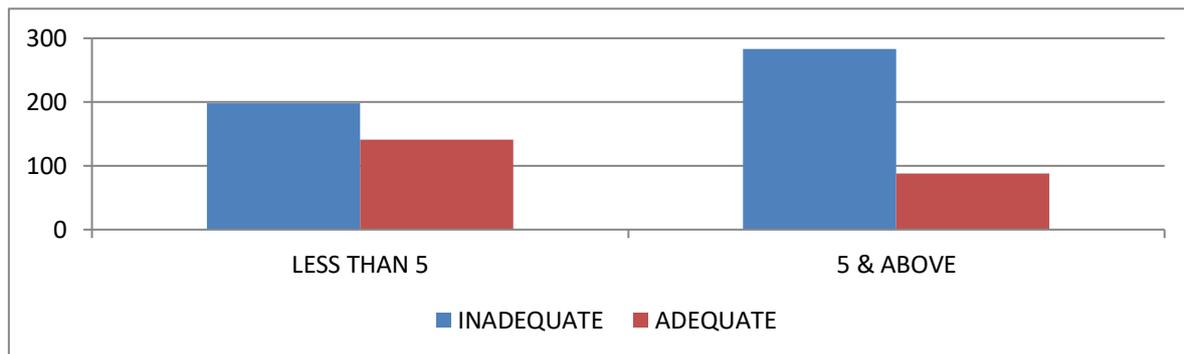


Figure 1. Family structure & care during illness

During old age, factors like social isolation, low income and depression affect their health. Loneliness is a common problem in old age and leads to health-related problems. Table 3 explains the various activities that they are engaged during their free time. During this time, it becomes all the more important for seniors to take on some activity that occupy their time. Study based on the activities during old age and family structure revealed that among the lower family sized groups, 37.4% are going for regular walks, 33.03% are visiting such as worship, tourist places or their relatives, and 22.7% spend their time watching TV and only 6.7% spend their time conversing with others. While those who belong to the larger family size the majority 38.3% spend their time watching TV, 26.4% by visiting worship, tourist places or relatives, 19.4% spend their time in conversations with others, and 15.9% of them by going for walks. (Table 3).

**Table 3.** Family Structure & Activities

| Activities<br>Family Size | Visiting<br>Worship<br>Places / Tourist<br>Places /<br>Relatives | Going For<br>Walks    | Watching<br>Tv        | Conver-<br>Sation<br>With<br>Others | Total          |
|---------------------------|--|-----------------------|-----------------------|-------------------------------------|----------------|
| Less Than 5               | 112[33.03%]<br>[53.3%]   | 127[37.4%]<br>[68.3%] | 77[22.7%]<br>[35.1%]  | 23[6.7%]<br>[24.2%]                 | 339<br>[47.7%] |
| 5 And Above               | 98[26.4%]<br>[46.6%]   | 59[[15.9%]<br>[31.7%] | 142[38.3%]<br>[64.8%] | 72[19.4%]<br>[75.7%]                | 371<br>[52.2%] |
| Total                     | 210[29.57%]  | 186[26.19%]           | 219[30.8%]            | 95[13.4%]                           | 710            |

On examining the degree of feeling of loneliness based on the present study, it is seen that feeling of loneliness is far higher (77.5%) in the smaller family size and only a far smaller percentage (4.4%), of those with a smaller family size do not have any feeling of loneliness. Among those who feel loneliness very much, the majority (67.6%) belongs to the smaller family size and those who are not at all feeling loneliness; the majority (82.7%) belongs to the larger family size. So higher the family size, the lower is the feeling of loneliness among the aged. The chi-square test also shows that the observation on feeling of loneliness and the family size of the respondents are significantly related. (Table 4) (Chi-square value = 138.6, Degrees of Freedom=2, Table value at 5% level=5.99).

**Table 4.** Family Structure & Feeling of Loneliness

| Feeling of<br>Loneliness<br>Family<br>Size | Very Much             | To Some<br>Extent     | Not at All           | Total          |
|--|-----------------------|-----------------------|----------------------|----------------|
| Less Than 5                                | 263[77.5%]<br>[67.6%] | 61[17.9%]<br>[26.1%]  | 15[4.4%]<br>[17.2%]  | 339<br>[47.7%] |
| 5 And Above                                | 126[33.9%]<br>[32.3%] | 173[46.6%]<br>[73.9%] | 72[19.4%]<br>[82.7%] | 371<br>[52.2%] |
| Total                                      | 389[54.7%]            | 234[32.9%]            | 87[12.25%]           | 710            |

On an examination of the influence of the family on the ability to adjust well at home it was found that 48.37% of the respondents whose family size is less than 5 reported that they are always able to adjust well at home and only 24.7% reported they are having difficulty adjusting while for the larger sized families 49.8% of them were having difficulties adjusting and only 10.5% reported they are well adjusted. On examining those who are always well adjusted, the majority 80.7% belongs to the family size of less than 5. So, the study reveals that the sample which belongs to the lower family size is able to adjust better at home than those who are living with a larger sized family. (Table 5).

**Table 5.** Family Size & Ability for Adjustment

| Ability to<br>Adjust Well<br>at Home<br>Family Size | Always                 | Some-Times            | Never                 | Total          |
|---|------------------------|-----------------------|-----------------------|----------------|
| Less Than 5   | 164[48.37%]<br>[80.7%] | 91[26.8%]<br>[38.2%]  | 84[24.7%]<br>[31.22%] | 339<br>[47.7%] |
| 5 And Above   | 39[10.5%]<br>[19.2%]   | 147[39.6%]<br>[61.7%] | 185[49.8%]<br>[68.7%] | 371<br>[52.2%] |

|       |             |            |             |     |
|-------|-------------|------------|-------------|-----|
| Total | 203[28.59%] | 238[33.5%] | 269[37.88%] | 710 |
|-------|-------------|------------|-------------|-----|

On examining the disease pattern, it was seen that 96.7% of those having diseases belong to the smaller family sized group and 95.4% of those having diseases belong to the larger family size. (Table 6).

**Table 6.** Family structure & disease

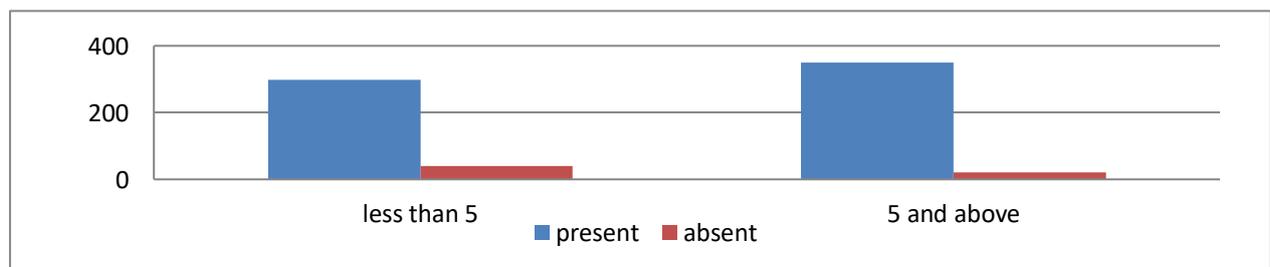
| Disease<br>Family Size | Present     | Absent   | Total          |
|------------------------|-------------|----------|----------------|
| Less Than 5            | 328[96.75%] | 11[3.2%] | 339<br>[47.7%] |
| 5 And Above            | 354[95.41%] | 17[4.5%] | 371<br>[52.2%] |
| Total                  | 682[96.05%] | 28[3.9%] | 710            |

Among those who are having family size less than 5, non- communicable diseases are present among 96.7% of the sample and in the larger family size of 5 and above it is 95.4%. But in the case of communicable disease it is higher among the larger family size 94.3%. (Table 7).

**Table 7.** Family Structure & Disease (Communicable & Non- Communicable)

| Disease<br>Family Size | Communicable Disease | Non-Communicable Disease | No Disease | Total      |
|------------------------|----------------------|--------------------------|------------|------------|
| Less Than 5            | 299[88.2%]           | 328[96.7%]               | 11[3.2%]   | 339[47.7%] |
| 5 And Above            | 350[94.3%]           | 354[95.4%]               | 17[4.5%]   | 371[52.2%] |
| Total                  | 649[91.4%]           | 682[96.05%]              | 28[3.9%]   | 710        |

The study shows that multiple diseases are more prevalent (94.3%) among those who belong to the larger family size compared to those who have small family size (88.2%). Multiple diseases are absent among 11.7% in the case of the smaller family sized group and only 5.6% in the case in the larger family size. It is evident from the study that higher the number of members in the family, the greater the risk of getting multiple diseases. (Figure 2).



**Figure 2.** Family Structure & Multiple Diseases

Furthermore, it was observed that among those that were having family size less than 5, 97.2% are having cardiac / hypertension related problems, 96% are having diabetes and 90.2% are having gastrointestinal problems. But in the case of those who are having larger family size, 88.7% are having cardiac or hypertension related problems, 87% are having diabetes and 68.6% are having gastro- intestinal problems. Among those who are having family size less than 5, 86.5% are having respiratory problems, 80.1% are having metabolic / hormonal complaints, 75% are having urology related complaints, 61.8% are having neurological ailments and 12.5% are cancer patients. Among those who are in the larger family size, 52.25% have respiratory illness, 51.6% are having neurological problems, 44.9% are having urological problems 41.2% are having metabolic / hormonal problems and 7.3% are cancer patients, in all these cases, the higher prevalence is among those who have family size less than 5. (Table 8).

**Table 8.** Family Structure & Types of Diseases

| Disease Family Size | Sub-Total  | Respiratory | Gastro-Intestinal | Urological | Neurological | Metabolic/Hormonal | Cardiac/Hypertension | Diabetes   | Cancer   | No Disease | Total     |
|---------------------|------------|-------------|-------------------|------------|--------------|--------------------|----------------------|------------|----------|------------|-----------|
| Less Than 5         | 328[96.75] | 284[86.5]   | 296[90.2]         | 246[75]    | 203[61.8]    | 263[80.1]          | 319[97.2]            | 315[96.03] | 41[12.5] | 11[3.2]    | 339[47.7] |
| 5 And Above         | 354[95.4]  | 185[52.25]  | 243[68.6]         | 159[44.9]  | 183[51.6]    | 146[41.2]          | 314[88.7]            | 308[87.01] | 26[7.3]  | 17[4.5]    | 371[52.2] |
| Total               | 682[96.05] | 469[68.76]  | 539[79.03]        | 405[59.4]  | 386[56.59]   | 409[59.9]          | 633[92.8]            | 623[91.34] | 67[9.8]  | 28[3.9]    | 710       |

## Conclusion

This study is mainly focused on the health problems including physical and mental abilities in the context of Kerala with special emphasis on the influence of family structure. It revealed that the variables selected for the study has significantly related with the health status of elderly. As family plays an important role in maintaining health condition, the lack of awareness among the family members regarding the changing behavioral pattern of the elderly leads to their life more problematic. So, it is the duty of the members to understand their needs and concerns thus ensuring their good health and also by providing emotional support makes them jovial which is inevitable an ideal way to make their life happy.

## References

- [1]. Bhamini Mehta & Indira Mallya (2003), Self-appraisal of elderly in slums of Vadodra City, Help Age India, Research and Development Journal.
- [2]. Birren J E et al, Hand book of mental health and ageing, Harcourt Brace Jovanovich Publishers, New York.
- [3]. Bongaarts J and Z. Zimmer (2001), Living arrangements of older adults in the developing world: An analysis of DHS households' surveys, Population council, New York, Policy research working papers No: 148, p-30.
- [4]. Bruera E et al, Text book of palliative medicine and supportive care, 2015.
- [5]. Chandra Prakash Dr. Ageing process mechanisms, In Bhatla. P. C, Lecture series in Geriatrics, Health care promotion trust, New Delhi p-3.
- [6]. Damron Rodriguez J, Lubben J. E (2000), A framework for understanding community health care in ageing societies, International meeting on community health Care in ageing societies. WHO, Kobe Centre.
- [7]. Elizabeth A et al, Encyclopedia of elder care, E book, 2013.
- [8]. Goh V. H (2005). Ageing in Asia: A cultural socio- economical and historical perspective, The ageing male 8:2, pp. 09-96.
- [9]. Haldwani, Shankar R, Tondon J, Gambhir I.S, Tripathi C.B (2007), Health status of elderly population in rural area of Varanasi district, Indian journal of public health. Jan-Mar; 51 (1):pp56-58.
- [10]. Hossain M.D, Ripter (2001), Demography of ageing and pattern of old age security in Bangladesh. Indian Journal of Geriatrics, 15 (1, 2): pp- 73 – 80.
- [11]. Howard M fillit et al, Text book of geriatric medicine and gerontology, E book, 2016
- [12]. Indirani Gupta and Deepa Sankar (2003), Health of the elderly in India- A multi variate analysis, The journal of health and population in developing countries, ISSN 1095-8940.
- [13]. Kalyan Bagchi, (2000) Healthy ageing, Help age India, Research and development journal, Vol-6, No. 3, June-Sept.
- [14]. John M S Pathy et al Principles and practice of geriatric care, 2006.
- [15]. Pappathi K and M. A, Sudhir (2005), psychosocial characteristics and problems of the rural aged, Research and development journal, Help age India, 11:1.
- [16]. Park K, Preventive and social medicine, Banarsidas bhanot, 1167, Prem nagar, Jabalpur
- [17]. Rodrguez. L et al, Frality in the clinical scenario ,2015.
- [18]. Streiner DL Health measurement scales, 2015.
- [19]. Suresh K. N (2002), The old age problems and care of senior citizen, Nursing journal of India.
- [20]. Susuman A. S (2005), The health of the aged in India: Emerging problems, Presented at the 2nd Indian association of social sciences in health, National conference on Globalization and health equity, Bhaba atomic research centre, Mumbai, Feb:4-4, p-20.
- [21]. Swain P and T. P. Sherin Raj (2004), Demography of ageing in India- state and district level analysis, presented at the international seminar of demographic changes and implications, Department of demography, University of Kerala, Trivandrum, India Dec. 7 -9, p12.
- [22]. Thomas K et al, Advace care planning in end of life care, Oxford University press, UK.2017.
- [23]. Tripathi R. M (2001), Health and health services from senior citizens- A case study of Allahabad, Man and development journal, 23:3.