Original Research Article

Perceived Stress and Quality of Life of Elderly Living Separately from Their Adult Children- A Cross-Sectional Comparative Study

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ABSTRACT

Background: A rapid increase in population of elderly people has been noticed in all over the world. With this increase in population of elderly, several other types of physical and mental health related problems also increased among them. Besides these problems, changed in living arrangement of elderly people also may increase the level of stress among elderly and be result of poor quality of life (QOL).

Methods and materials: A cross sectional comparative study was conducted to assess and compare the level of perceived stress and quality of life among elderly people living separately from their children and elderly living with their children or family members. A total 100 individuals (50 elderly people living with their children or other family members and 50 elderly people living separately from their children) aged 60 years and above were interviewed using a semi structured questionnaire including socio-demographic variables, Cohen's Perceived Stress Scale (PSS) and WHOQOL BREF Questionnaire.

Result: Majority of the respondents was belonged to age group 60-64 years and ratio of male and female respondents was nearly equal in both study groups. Moderate level of perceived stress was found in both study groups. Significant difference was found in perceived stress and quality of life both study groups. And significant negative correlation was found between the perceived stress and quality of life of elderly people.

Conclusion: Living separately from their children and other family member in late life increase the perceived level of stress among elderly and resulting increase in poor quality of life. And perceived stress is negatively correlated with quality of elderly people.

Keywords: Aging, Older adults, living arrangement, health, psychiatric morbidity

INTRODUCTION

The population of elderly people aged 60 years or above is increasing all over the world day by day. Increase in life expectancy and health care facilities and modern scientific discoveries of different treatment methods for diseases and disorders are the main factors for this increase in the population of elderly people. The global population of elderly aged 60 or above has reached up to 962 million, and it is projected to reach nearly 2.1 billion by 2050. [1] The population of elderly people in India has become the second largest population in the world after China. According to census 2011, there are about 104 million elderly people (aged 60 years or above) in India. And out of this total population 53 million are female and 51 million are males. [2-4]

This rapid increase in population of elderly in developing and developed countries mean that all of them would be at risk of a challenges to their quality of life.

And the major challenges in the 21st century is to delay the onset of physical and mental health related disease or disorders and ensure the optimum quality of life of older adults. [5] Recently the WHO has warned all those countries where the population of elderly is increase rapidly and living longer, will face major global public health related challenges. [6]

In National Family Health Survey (NFHS) 2005-06, it was also found that living arrangement of the elderly in India is getting changed day by day, and near about three fourths of elderly people living with either alone or with spouse only. [7] It has been seen in the results of previous studies conducted mostly in developed and underdeveloped countries that living alone or separately from family members may be associated with various types of health related problems and issues among elderly people. [8,9] Previously done epidemiological and clinical studies in Asian and Europium countries have reported that elderly people living alone are more likely to be at risk of depression and poorer mental health and quality of life. [8, 10, 11]

In resent a few decades change in living arrangements of elderly people has been seen in India due to several reason like decline in joint family system, financial problems, adult child migration in other city or state, urbanization and modernization. This change in living arrangement may increase the psychosocial stress in the life elderly people which can be reason of major mental and physical health related problems. Very few of the study have been conducted to assess the quality of life of elderly people especially those are living separately or apart from their family members in the community. The aim of the present study was to assess and compare the perceived stress and quality of life elderly living with their children and elderly living separately from their children in the community.

OBJECTIVES
➢ To assess and compare the perceived stress and quality of life of the study groups.
➢ To assess the correlation between the perceived stress score and all domains of quality of life.

MATERIALS AND METHODS
A cross sectional comparative study was conducted in Varanasi district, Uttar Pradesh from October 2017 to August 2018. A total of 100 individuals (50 elderly people living with their children or other family members and 50 elderly people living separately from their children) aged 60 years or above were included in the present study.

INCLUSION CRITERIA
• Aged 60 years or above
• Living in study condition.
• Willing to participate in the study and giving consent.

EXCLUSION CRITERIA
• Aged below 60 years,
• having hearing and vision impairment or chronic illness
• And not willing to participate in the study or giving consent.

Operational Procedure: First, Ethical clearance was taken from institutional ethics committee, Institute of medical sciences, Banaras Hindu University, Varanasi. Respondents were included using inclusion and exclusion criteria from some selected area (Shivpur, Khojwa, Sudarpur) in Varanasi district. The respondents were explained about the nature and objective of the study and then consent taken from each individual. Selected individuals were interviewed using proforma prepared the research scholar. The time taken for each interview was approximately 30 minutes in single session.

INSTRUMENT AND QUESTIONNAIRE
Instrument and questionnaire used it present study include two parts; first socio-

demographic questionnaire consisting variables like; age, sex, marital status, education, occupation, religion, category, and socio economic status etc. and second part: (1) to assess stress Cohen's Perceived Stress Scale (PSS) [12] was used. The scale consist of ten items with five alternative answer i.e., 1=Never to 5=Very often. High score indicate a high level perceived stress. (2) a Hindi version of WHOQOL BREF Questionnaire [13-15] to assess quality of life of respondents which consist 26 items, 24 out of these items are divided in to four domains s (Physical, Psychological, Social and Environmental), with two individual items assessing the perception of overall QOL and general health. Each items are rated on 5 points scale, high score indicate high quality of life.

STATISTICAL ANALYSIS

The data was first entered into MS excel 2007 version. The analysis was done using IBM SPSS 20 version. For descriptive analyses, the categorical variables were analyzed by using percentages and the continuous variables were analyzed by calculating Mean ± Standard Deviation. For association between socio demographic variables Pearson Chi Squire test was used and for Comparison between the groups Students Independents t-test was used.

Ethical aspects: Ethical approval was taken from the Ethical committee of Institute of Medical Sciences BHU Varanasi. And written informed consent was taken from all the respondents.

RESULTS

Table-:1 Socio-demographic characteristics of the respondents (n=100)

Variables	Elderly living with their children (Group 1) N=50 f (%)	Elderly living separately from their children (Group 2) N=50 f (%)	χ2 (P Value)
Age (Years)			
60-64	19 (38)	17 (34)	8.455 (0.076)
65-69	18 (36)	15 (30)	
70-74	4 (8)	12 (24)	
75-80	3 (6)	5 (10)	
80 and above	6 (12)	1 (2)	
Mean & SD	66.76 ±6.86	66.72 ±5.16	
Gender			
Male	24 (48)	25 (50)	0.040 (0.841)
Female	26 (52)	25 (50)	
Marital Status			
Married	29 (58)	27 (54)	0.162 (0.687)
Widow/Widower	21 (42)	23 (46)	
Education			
Illiterate	20 (40)	16 (32)	3.348 (0.103)
Literate	30 (60)	34 (68)	
Occupation			
Farmer	5 (10)	5 (10)	4.533 (0.605)
Business	2 (4)	2 (4)	
Job	6 (12)	4 (8)	
Shop Keeper	4 (8)	8 (16)	
Unemployed	6 (12)	3 (6)	
Housewife	24 (48)	21 (42)	
Retired	3 (6)	7 (14)	
Religion			
Hindu	44 (88)	42 (84)	0.332 (0.564)
Muslim	6 (12)	8 (16)	
Category			
General	16 (32)	21 (42)	12.039 (0.007)
OBC	21 (42)	28 (56)	
SC	10 (20)	1 (2)	
ST	3 (6)	0 (0)	
Socio Economic Status			
Lower	12 (24)	14 (28)	4.782 (0.310)
Lower Middle	4 (8)	3 (6)	
Upper	3 (6)	9 (18)	
Upper Lower	20 (40)	13 (26)	
Upper Middle	11 (22)	11 (22)	

(In table 1) A total of 100 respondents were participated in the study. Majority of the respondents were between age group 60-64 years in both groups 38% in group 1 and 34% in group 2. The mean and SD of the age of respondents were found respectively group 1 (66.76 ±6.86) and group 2 (66.72 ±5.16). Male and Female respondents were nearly equal in both groups. Majority of the respondents were married in both groups; 58% in group 1 and 54% in group 2. Most of the respondents were literate in both groups; 60% in group 1 and 68% in group 2. And

48% respondents in group 1 and 42% respondents in group 2 were housewives. Majority of the respondents were Hindu and most of them were belong to OBC (Other Backward Class) in both groups. Approximately 70% of the respondents in both groups belong to upper, upper lower and upper middle socio economic status (According to Kuppuswamy's socio economic classification). [16] There was no significant difference in age, gender, marital status, education, occupation religion and socio economic status instead of these significant difference (p=0.007) was found in category of the respondents.

Table-: 2 Level of Perceived Stress in both study groups

Level of Perceived Stress	Elderly living with their children (Group 1) n=50 f (%)	Elderly living separately from their children (Group 2) n=50 f (%)
Low Stress	11 (22)	5 (10)
Moderate Stress	36 (72)	41 (82)
High Stress	3 (6)	4 (8)

Table-: 3 Comparison of Domains of Perceived Stress Scale Score of the study Groups

PSS Scale	Elderly living with their children (Group 1)	Elderly living separately from their children (Group 2)	P Value
Stress Score	18.14 ±5.19	20.26 ±4.65	0.034

Table-: 4 Comparison of Domains of Quality of life of the study groups

Domains	Elderly living with their children (Group 1)	Elderly living separately from their children (Group 2)	P Value
Domain 1- Physical	41.82 ±13.41	37.94 ±11.79	0.128
Domain 2- Psychological	49.38 ±14.03	43.94 ±11.82	0.039
Domain 3- Social Relationship	60.38 ±14.74	53.48 ±16.90	0.031
Domain 4- Environmental	53.40 ±12.51	48.14 ±12.17	0.036

Table-:5 Correlation between Perceived stress Score and Domains of WHOQOL BREF Questionnaire

Domains	r-Value	P-Value
Domain 1- Physical	-0.21	0.036
Domain 2- Psychological	-0.23	0.018
Domain 3- Social Relationship	-0.20	0.037
Domain 4- Environmental	-0.15	0.141

(In table 2) It shows the level of the Perceived Stress among the respondents, in the present study the result shows that majority of the respondents in the both groups (72% in group 1 and 82% in group 2) have moderate stress and number of elderly having moderate and high stress is high in group than group 1.

(In table 3) It shows the comparison of the perceived stress score obtain by respondents in the both study groups. In the study the perceived stress score was found high in group 2 (elderly people living

separately from their children) than group 1 (elderly people living with their children). And there was (p=0.034) significant difference found between the mean score of perceived stress score in the both study groups.

(In table 4) It shows the domain score of quality of life measured by WHOQOL-BREF questionnaire. In the study the mean score were found high in all 4 domains in group 1 (elderly living with their children) than group 2 (elderly people living separately from their children). There was significant difference found in psychological domain (p=0.039), social relationship domain (p=0.031) and environmental domain (p=0.036).

(In table 5) It shows the correlation between score of perceived stress scale score and all domains of quality of life. In this study there were negative correlation found with domains; physical (r=-0.21, p=0.036), psychological (r=-0.23, p=0.018) and social relationship (r=-0.20, p=0.037).

DISCUSSION

The present study was based on cross sectional comparative research design, in the study there respondents were divided in to two groups and total 100 respondents (50 respondents in each group) were interviewed. In the study mean age of the respondents was approximately 66.75 years in both groups and most of the respondent belonged to age group 60-64 years. And the same findings were found in some other studies conducted by Shah et al, Lim LL, Kua EH and Sowmiya KR. Sathvik BS et al. [17-20] Majority of the respondents were married and having their spouses alive. And there was no significant difference found in socio-demographic variables like; age, gender, marital status, education, occupation, religion, and socioeconomic status in both groups.

Result of the present study also shows that living separately is very stressful for elderly people in the community, significant difference was found in the perceived stress score in the both groups. Similar results were found in some other studies conducted by the researchers in India and other western countries. [21-23] Living status of the elderly plays an importance role in the quality of the elderly in the community, in the present study the result found that living with family members (especially with son and daughter) increase the quality of life of the elderly besides elderly living separately. Agrawal S. conducted a study on effect of living arrangement on the health status of elderly in India, and found that living arrangement of elderly is strongly associated adverse health outcome especially physical health related problems and elderly living alone are more likely to suffer from the physical and mental related problems. [24]

In this study all four domains score of quality of life were found high in elderly living with their children (son and daughter) and other family members compare to elderly living separately from their children or other family members. And there were found significant difference in three of all four domains like; psychological and social relation and environmental in both groups, similar results were found in some other studies. [25-27]

In the study the result also represents that the perceived stress has negative correlation with the quality of life of elderly. De Frias CM, Whyne E conducted a study to stress on health-related quality of life in older adults and found that life stress was inversely related to physical and mental health. [28] Atkins J et al found in their study on psychological distress and quality of life in older persons that high level of psycho social distresses are negatively correlated with quality of life of older adults. [29]

CONCLUSION

There was significant difference found in the level of perceived stress and quality of life between elderly people living with their adult children or other family members from those elderly people living separately from their adult children without any support and care. There was negative correlation found between perceived stress and domains of quality of elderly people, especially with physical, psychological and social relationship. Finding of this study indicate that living with adult children and other family members can reduce the level of stress and improve the quality of life elderly people.

LIMITATION

The sample size of this study was small hence the result of the study may not be generalized. Data was collected from mainly three areas in Varanasi district. It was a cross sectional comparative study and the respondents were not on follow up.

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