Original Article

Social Support Status of the Elderly Population in Selected Villages in a Central India District

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Abstract

Background: Social support has been considered an important social determinant of health because it assists individuals in reaching their physical and emotional needs. The current study was proposed to assess the social support status of the elderly in rural central India. **Material and Methods:** This observational cross-sectional study was conducted in selected four villages in central India on 460 elderly individuals for 5 months (Aug-Dec 2021) with the use of the MSPSS (Multi-dimensional Scale Perceived Social Support) questionnaire. Univariate analysis and multivariate analysis were carried out using R software. **Result:** Out of 460, 37 (8.04%) of the elderly were found to have low, 177 (38.47%) were moderate, and 246 (53.48%) were having high social support. The result showed age and education of the elderly were significantly associated with social support. **Conclusion:** Intergenerational activities**,** provision and strengthening of social platforms, and the addition social support components with comprehensive geriatric assessment can improve the current status.

Keywords: Elderly, MSPSS, social support

Introduction

Globally, the elderly population constitutes about 12% of the total population of 7.3 billion i.e. 864 million. By 2050, the world's old population will have accounted for 22% of the worldwide population.[1] According to the Report of the Technical Group on Population Projections for India and States, an increase of nearly 34 million elderly persons was seen in 2021 over the Population Census 2011.[2] We are going to witness the demographic shift with the predictable trends of population aging and thus need to prepare society to tackle the underlying problem of population aging like psychological conditions and malnutrition. Social support has been considered an important social determinant of the health of the elderly because it assists individuals in reaching their physical and emotional needs, and it reduces the effects of stressful events on their quality of life.[3] Declining informal social support systems make the elderly population more vulnerable. A study carried out among the elderly in Iran concluded that high social support could increase happiness, self-confidence, self-disclosure, and self-esteem in an individual, thereby helping him/her achieve goals, satisfaction with life, and, ultimately, happiness. Good health along with optimal social support increases the productivity of the elderly and values their contributions to society.[4]

To encourage healthy aging, everyone should play a part in the well-being of the elderly including the government, non-government organizations, and families.[5] As time changes, we need more customized services to cope with the demands of the aging population and support healthy aging. Social support, which is an important component of healthy aging, must be addressed and incorporated into the available service package for the elderly. As far as our knowledge, very limited research has been conducted on the predictors of social support among the elderly in central India. The social structure in a rural setting for the elderly and how it offers healthy aging to the elderly needs to be understudied in order to make recommendations for the

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future. This study will try to shed light on the social support status of the elderly in rural areas to draw recommendations to improve the current status.

Aim and objectives

To assess the social support status of the elderly in rural areas.

Methodology

Study design

This was an observational cross-sectional study.

Study setting

This study was conducted in selected four villages in central India, which are also field practice areas of the medical college. All four selected villages cater to population ranges from 2000 to 8000. Our institutional department operates fieldwork in all four villages including weekly clinics, participating in VHNSC (Village Health, Nutrition, and Sanitation Committee) meetings, conducting school health, conducting health camps, and many more. The villages with a sufficiently large population were selected considering the feasibility of the commute that helped to recruit the necessary sample size.

Study population and study duration

Men and women equal or more than 60 years of age were included in the study which was carried out in the period between Aug-Dec 2021.

Sample size

This study was carried out on 460 elderly individuals. The sample size was estimated by using OpenEpi software at a 95% confidence level with 5% absolute precision[6] using the prevalence of poor social status in the elderly (25%) from a previous study[7] with a 1.5% design effect.

Sampling technique

Stratified random sampling was used. The list of elderly from selected villages was procured from the departmental Health and Demographic Surveillance System (HDSS) database. An elderly individual was the unit of study. The obtained list was stratified according to age. Then elderly individuals were chosen randomly from each stratum as per their proportional population size of each stratum.

Method of selection

Exclusion criteria-

- The elderly who was bed-bound
- Had diminished hearing and visual sensations

Method of measurement

a. **Socio-demographic data**- A pretested semi-structured interview schedule was used to collect information on the socio-demographic profiles. It included details on age, gender, caste, religion, education, working status, socio-economic status, contact number, and family type.

b. **Tool for measurement of social support status**- MSPSS (Multidimensional Scale of Perceived Social Support) is the scale of 12 questionnaires with 7 possible responses (score 0-6). So, a maximum of 72 scores can be obtained by an individual. A higher score indicates a high perceived social support.[8] According to the MSPSS scoring guidance, this questionnaire comprises 12 items with a separate subscale relating to perceived support from a significant other, friends, and family. To calculate subscale scores-

- Significant other subscales- Add together items 1, 2, 5, and 10 and then divide by 4
- Family subscale- Add together 3, 4, 8, 11 and then divide by 4
- Friends subscale- Add together items 6,7, 9, and 12 and then divide by 4
- Total scale- Add together all 12 items and then divide by 12

Results- Any mean total scale score ranging from 1- 2.9 could be considered as low support, 3- 5 could be considered as moderate support, and 5.1- 7 could be considered as high support.[9]

This tool is validated and already used for different studies in India.[10-12] The MSPSS questionnaire was translated into the local language and pre-testing was done in the field with a small group to look for the necessity of the revision and then used during data collection.

c. Methods of data collection-

In the first phase, a questionnaire was developed in the KOBO toolbox and then imported into the KOBO collect software on a mobile device. The KOBO tool is useful for collecting data without utilizing paper or the internet. Data was collected using KOBO Collect, which was loaded on an Android phone, and then exported to the KOBO toolbox. The data was then downloaded into an excel file. Pretesting was done to see if there was any scope for improvement. Final data collection began in the field after participants' responses were analyzed and improvement measures were identified.

After receiving informed consent from selected participants, the second phase—data collection—began. House-to-house visits were done to conduct interviews. When administering the study tool, the privacy and comfort zone of the subjects were taken into account.

Analysis

Data from the KOBO tool was converted to an excel sheet. Analysis was carried out using R software (version 1.4.1717). Univariate analysis was carried out to find frequency and proportions. Multivariate analysis was done by the ordinal logistic regression methods.

In this study, there were three levels of social support status (low, moderate, and high). As social support status was an ordinal outcome variable, ordinal logistic regression was done. The proportional odds model was used and it was assumed that the effect of exposure is the same for all splits of the categories of the outcome variable.[13] The categorical explanatory variable

of interest was the age, gender, caste, education, occupation, type of family, and socio-economic status of the respondents. A *P* value *less than 0.05* (typically ≤ 0.05) was considered statistically significant.

Ethical consideration

The current study started after the approval received from Institutional Ethical Committee on 12 Oct 2019 (MGIMS/IEC/COMMED/106/2019). Informed consent was taken from the study participants before the application of the questionnaires.

Result

Socio-demographic details

Sociodemographic details of all study subjects are given in Table 1. A majority, 344 (74.78%) of the study population belonged to the 60-70 years of age group. Female participants 278 (60.43%) constituted more in the study. The majority of the subjects 345 (75%) were from the Hindu religion, followed by Buddhism 96 (20.87%). 205 (44.57%) of subjects in the study belonged to the OBC category, while 45 (9.78%) belonged to Others which included Nomadic tribes (NT1, NT2, NT3, VJ-NT). Most of the study subjects 151 (32.83%) had no formal schooling and were illiterate while 20 (4.35%) had completed graduation or master's. In the study 129 (28.04%) elderly were homemakers, and 99 (21.52%) were others (who were not engaged in any kind of occupation). Around half of the study population, 247 (53.70%) came from three-generation families. All families of the elderly were having ration cards. Most of the families 217 (47.17%) belonged to the above poverty line (APL).

Social support status

Total scores of MSPSS (Multidimensional Scale of Perceived Social Support) range from 12-84. The mean score has been undertaken to differentiate social support status into low, moderate, and high. The mean score ranged from 1-7.

Social support status of elderly using MSPSS questionnaire

In the study, 37 (8.04%) of the elderly were found to have low social support, 177 (38.47%) were having moderate social support, and 246 (53.48%) were having high social support. [Table 2]

MSPSS subscales

The means and standard deviations of the three subscales and total scale are given in Table 3.

MSPSS questionnaire items

Family subscale: - Around half of the elderly agreed to share their problems with their family, get emotional help and support from their family, and that their family helps them in decision-making and tries to help them.

Friends subscale: - Approximately one-third of the elderly agreed on having friends with whom they share joys and sorrows and that they can talk about their problems, they count on them if things go wrong and their friends try to help.

Table 1: Socio-demographic details of the study subjects

Characteristics	Frequency (*n*=460)	Percentage
Age (years)		
60-70	344	74.78
71-80	100	21.74
>80	16	3.48
Gender		
Male	182	39.57
Female	278	60.43
Religion		
Hindu	345	75
Muslim	18	3.91
Christian	1	0.21
Buddhism	96	20.87
Caste		
Open	61	13.26
Other Backward Class	205	44.57
Scheduled Caste	119	25.87
Scheduled Tribe	30	6.52
Others	45	9.78
Education		
No Formal school	151	32.83
Less than primary schooling	83	18.04
Primary school completed	54	11.74
Less than Secondary schooling	61	13.26
Secondary school completed	63	13.70
Less than Higher Secondary	6	1.30
Higher secondary school completed	22	4.78
Graduation/Masters	20	4.35
Occupation		
Farmer	67	14.57
Business	22	4.78
Retired	74	16.09
Laborer	69	15
Homemaker	129	28.04
Others	99	21.52
Type of Family		
Nuclear	203	44.13
Generation	247	53.70
Joint	10	2.17
Caste		
Open	61	13.26
Other Backward Class	205	44.57
Scheduled Caste	119	25.87
Scheduled Tribe	30	6.52
Others	45	9.78
Socio-economic status		
APL	217	47.17
BPL	153	33.26
AYY	90	19.57

Special ones: - Around half of the elderly agreed on having a special one who cares about their feelings, who is a source of comfort, stays around when they are in need, and with whom they can share joys and sorrows. [Figure 1]

Table 2: Social support status

	Frequency (n=460)	Percentage
Social support (MSPSS Total Scoring)		
Low support (1-2.9)	37	8.04
Moderate support (3-5)	177	38.47
High support (5.1-7)	246	53.48

Table 3: Statistics of MSPSS subscales (n=460)

	Range of mean score	Average Mean	Standard Deviation
Family	1-7	5.26	1.20
Friends		4.53	1.54
Special ones		5.06	1.33
Total		4.95	1.11

Predictors of social support

The result [Table 4] showed age and education of the elderly were significantly associated with social support.

The elderly who belonged to the 71-80 years of age group had lesser odds of having high social support (OR = 0.60, 95% CI: 0.36-0.99, P = 0.02). The elderly who belonged to the >80 years of age group had lesser odds of having high social support (OR = 0.31, 95% CI: 0.11-0.88, P = 0.04).

The odds of high social support were higher for elderly those who had education less than secondary school (OR = 3.88, 95% CI: 1.94-7.75, P < 0.05), for elderly those who completed secondary schooling (OR = 4.45, 95% CI: 2.19-9.01, P < 0.05), for elderly those who had high secondary schooling (OR = 10.10, 95% CI: 2.59-39.31, P < 0.001), and for elderly those who had done graduation or masters (OR = 6.27, 95% CI: 1.71-23.01, P < 0.006).

Discussion

By the National Cancer Institute's Dictionary of Cancer Terms, social support defines as "a network of family, friends, neighbours, and community members that is available in times of need to give psychological, physical, and financial help".[14] The current study tool also included the social support perceived by friends, family, and special ones. The personal social network can provide emotional stability and social companionship. It helps to clear depressive feelings, elevate mood and give new hope and direction to life (structural dimension of support). The second important thing, active participation in community activity helps to stay connected to society which improves self-esteem and self-worth; also gives satisfaction to life (functional dimension of support).

The predictors found to be associated with social support were age and education. [Table 4]. A cross-sectional study conducted in Taiwan found a similar finding, indicating that rising age and education could be linked factors for elderly

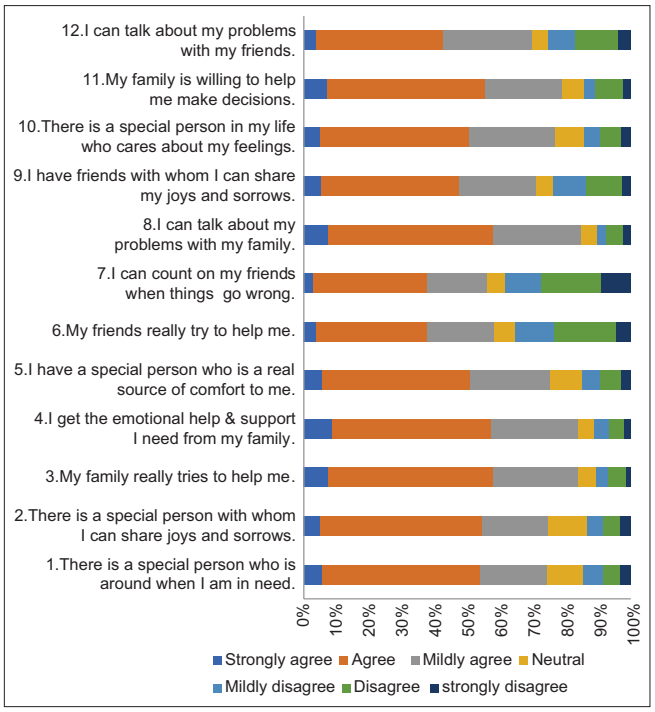

Figure 1: Survey on social support using MSPSS questionnaire (n = 460)

social support.[3] Social support includes addressing tangible needs, like assistance with transportation, home, and personal care, as well as emotional support. The elder (>80 years of age) restrained their outdoor activities as compared to other elderly due to frailty, therefore, they may lack social network and be deprived of social support. The elder population living without a partner or alone itself a major risk factor to develop poor social status. Kawachi mentioned the study showing, socially isolated men (not married, fewer than six friends or relatives, no membership in a church or community group) were at increased risk for cardiovascular disease mortality (age-adjusted relative risk, 1.90; 95% CI 1.07, 3.37) and deaths from accidents and suicides (age-adjusted relative risk 2.22; 95% CI 0.76, 6.47) and stroke incidence (relative risk, 2.21; 95% CI, 1.12, 4.35) as compared to men with the highest level of social networks.[15] High education ensures high community participation. The important thing, active participation in community activity helps to stay connected to society which improves self-esteem and self-worth; also gives satisfaction to life because of high social support. A study in Taiwan commented that people should consider social utilization. Maintaining social harmony is common practice in Asia as compared to the Western region.[3]

Social support has been considered an important social determinant of health because it assists individuals in reaching their physical and emotional needs, and it reduces the effects of stressful events on their quality of life.[3] Family members can provide emotional and instrumental support (such as money, gifts, and services), while family members and friends can provide information and appraisal help. The friends of elderly individuals can accompany them

Table 4: Association of social support status with various sociodemographic factors (Multivariate analysis -Ordinal Logistic Regression)

	ß Coefficient	SE	aOR (LL-UL)	*P*
Age (years)				
60-70	Ref			
71-80	-1.14	0.52	0.60 (0.36-0.99)	0.02*
>80	-0.50	0.25	0.31 (0.11-0.88)	0.04*
Gender				
Male	-0.19	0.25	0.81 (0.49-1.34)	0.43
Female	Ref			
Caste				
Others	0.19	0.42	1.21 (0.53-2.79)	0.64
Scheduled Caste	-0.03	0.34	1.03 (0.53-2.02)	0.91
Other Backward Class	-0.12	0.32	0.88 (0.47-1.64)	0.69
Open	Ref			
Scheduled Tribe	-0.47	0.46	0.62 (0.25-1.54)	0.30
Education				
No Formal school	Ref			
Less than primary schooling	0.29	0.28	1.34 (0.76-2.35)	0.30
Primary school completed	0.33	0.33	1.39 (0.72-2.69)	0.32
Less than Secondary schooling	1.35	0.35	3.88 (1.94-7.75)	0.00*
Secondary school completed	1.49	0.36	4.45 (2.19-9.01)	0.00*
Less than Higher Secondary	1.14	0.90	3.13 (0.53-18.55)	0.20
Higher secondary school completed	0.31	0.69	10.10 (2.59-39.31)	0.001*
Graduation/Masters	1.87	0.66	6.27 (1.71-23.01)	0.006*
Occupation				
Farmer	0.70	0.36	2.02 (0.99-4.10)	0.05
Business	0.24	0.51	1.27 (0.46-3.49)	0.63
Others	0.20	0.37	1.28 (0.69-2.36)	0.42
Laborer	0.13	0.32	1.14 (0.61-2.16)	0.66
Retired			1.23 (0.59-2.57)	0.57
Homemaker	Reff			
Type of Family				
Generation	0.21	0.20	1.23 (0.82-1.84)	0.30
Nuclear	Reff			
Joint	-0.67	0.63	0.51 (0.14-1.76)	0.28
Socio-economic status				
AYY	-0.53	0.27	0.58 (0.34-1.00)	0.054
BPL	-0.46	0.23	0.63 (0.39-1.00)	0.053
APL	Reff			

*Significant, pseudo R^2=0.193, VIF of all independent variables <5

in social activities more frequently than can their children or other relatives.[16]

Based on the finding following recommendations may help the elderly to improve their social support status:

- Provision of social platforms for the elderly or strengthening existing platforms like Kisan Manch, and Bhajan Mandal to improve community participation
- At the village level, engagement in intergenerational activities, Kutumb mela was to strengthen the bond in the family and build social and emotional support
- Comprehensive geriatric assessment for the screening and strengthening of a component of preventative, promotional, and rehabilitative care for the elderly with social support.

The study strengths were the application of a validated study tools and community-based assessment of the elderly. But there are several limitations of the study. First, there was no way to avoid self, overreporting. Second, recall bias could be a possibility. Third, the study excluded the elderly who were confined to their beds. However, it paves the way for future opportunities to understand their perspective.

Conclusion

The current study concluded that a 53.48% prevalence of high social support was present among the elderly and it was significantly associated with age, and education. The elderly who restrict their activities at home can engage in intergenerational activities that promote family social

support. Provision and strengthening of social platforms for the elderly with creative activities while ensuring health can improve the current status. While addressing the health issues in the geriatric clinic one should take consideration of strengthening their social support through family or friends involvement.

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Conflicts of interest

There are no conflicts of interest.

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