Original Article

DOI: 10.7860/JCDR/2018/29673.11378

Public Health Section

Quality of Life Among Geriatric Population in an Urban Area of Tripura, India

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ABSTRACT

Introduction: With the increase in proportion of geriatric population, assessment of their Quality of Life (QOL) is also a major concern in developing countries like India.

Aim: The aim of the present study was to assess different domains of QOL and associated sociodemographic factors among geriatric population.

Materials and Methods: The present community based cross-sectional study was conducted among geriatric population residing in Dukli municipal area of Agartala, Tripura, India for a period of two months (August 2016-September 2016). The study was conducted among 76 randomly selected individuals (19 individuals from each of four different para) from Dukli area, using Lot Quality Assurance Sampling (LQAS) technique. Data were collected using predesigned, structured WHOQOL-BREF questionnaire format after meaningful translation into local language (Bengali) and analysed using computer software SPSS version 20.0.

Results: The mean QOL scores were maximum in Social Relationship domain (60.03±11.73), followed by Environment domain (55.30±8.88). Majority of the study participants were found to have poor QOL in all four domains [50 (65.8%) in Physical Health domain, 43 (56.6%) in Psychological, 44 (57.9%) in Social Relationship and 56 (73.7%) in Environment domain]. Significant difference was found in Psychological domain score among different socioeconomic class (p-value=0.019) and marital status (p-value=0.004). Again Environment domain of QOL was found better in lower socioeconomic class (p-value<0.05).

Conclusion: Overall poor QOL was reflected among the urban geriatric population in this study and improvement in personal relationships, social support etc., for the elderly females were found to be important to improve their QOL. Economic stability by means of various self-help groups and self-employment schemes for the elderly by government is of utmost importance especially for the lower class population in urban areas to improve their QOL.

Keywords: Domains, Environment, Psychological, Social relationships

INTRODUCTION

Ageing is a physiological process that starts from birth, continues throughout life and ends up with death. Globally, developmental changes in biomedical knowledge and techniques in recent years have greatly influenced the life expectancy of the elderly people, not only by adding years to life, but also QOL to years. QOL has been defined as "an individual's perception of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, of standards and concerns" [1].

The proportion of the world's population over 60 years will nearly double from 12% to 22% between 2015 (900 million) and 2050 (2 billion). In 2050, 80% of older people will be living in low- and middle-income countries [2]. In developing countries, demographic transition results in increasing life expectancy and increase in proportion of elderly population in near future [3]. For India, in the last one decade (2001-2011), the growth in elderly population has shot up to 36% from 25% in the earlier decade (1991-2001). Currently, the population of above 60 years was around 8.6% in 2016 (103.9 million) in India, which is expected to become 20% (324 million) of the total population by 2050 [4,5].

The epidemiological transition of diseases with increase in burden of chronic morbidity conditions, which is driven by population ageing, will affect the QOL of elderly population [6]. Variations in older peoples' health have genetic origin; but much is due to peoples' physical and social environments, including their homes, neighbourhoods, and communities, as well as their personal characteristics, such as their sex, ethnicity, or socioeconomic status [2]. This very context demands assessment of QOL and its associated factors among this vulnerable population so that effective measures can be taken to improve the QOL of elderly population. Again very little has been contributed to the knowledge in this context from this part of the country which necessitates the present study of assessment of different domains of QOL and its associated factors among geriatric population in an urban area of Tripura.

MATERIALS AND METHODS

A community based cross-sectional study was conducted among geriatric population (aged 60 years and above) residing in Dukli municipal area of Agartala, Tripura, India for a period of two months (August-September 2016). Dukli has a population of 17,914 as per the family health survey records of Department of Community Medicine and is urban field practice area of Tripura Medical College and Dr. B.R. Ambedkar Memorial Teaching Hospital, where study was conducted.

Lot quality assurance sampling technique was used to select the required samples considering each para (mohalla) as a single lot under Dukli municipal area. There are four different paras under Dukli area. From each para 19 individuals of age 60 years and above (upto 85 years in the present study) were selected randomly giving a total sample size of 76 (=4×19) which gives ±11% precision considering 95% confidence interval [7].

For inclusion, those who were willing to participate in the study and those who were available at home during the survey, were selected for the survey and those who were seriously ill and not mentally stable, were excluded.

The tool used for data collection was a predesigned, pretested, structured interview schedule which consisted of two parts, first part being the sociodemographic information part of the participants and

the second part as WHOQOL-BREF scale after meaningful translation into local language (Bengali) by experts and retranslated into English for comprehensive assessment of QOL of the participants. Cronbach's alpha for the study tool was calculated to be 0.762 which signifies good reliability of the questionnaire. The later part consisted of 26 questions each having five options on 5-point Likert scale and divided into four different domains namely Physical Health, Psychological, Social Relationships and Environment domain as per standard WHO guidelines [Table/Fig-1]. Raw scores so calculated were again converted into transformed score (4 to 20) [8]. Individual domain score more than the median was considered as good QOL [Table/Fig-2]. Socioeconomic status of the respondents was assessed using modified B G Prasad scale 2015 [9]. Data were collected by interviewing the selected participants during home visit by trained staffs in the presence of investigators and recorded in spread sheet of computer software SPSS version 20.0.

Domain	Facets incorporated within domains
1. Physical health	Activities of daily living Dependence on medicinal substances and medical aids Energy and fatigue Mobility Pain and discomfort Sleep and rest Work capacity
2. Psychological	Bodily image and appearance Negative feelings Positive feelings Self-esteem Spirituality/Religion/Personal beliefs Thinking, learning, memory and concentration
3. Social relationships	Personal relationships Social support Sexual activity
4. Environment	Financial resources Freedom, physical safety and security Health and social care: accessibility and quality Home environment Opportunities for acquiring new information and skills Participation in and opportunities for recreation/leisure activities Physical environment (pollution/noise/traffic/climate) Transport

[Table/Fig-1]: WHOQOL-BREF domains [8].

Domains	Quality distribution of QOL	
	Good frequency (%)	Poor frequency (%)
Domain 1 (Physical health)	26 (34.2)	50 (65.8)
Domain 2 (Psychological)	33 (43.4)	43 (56.6)
Domain 3 (Social relationship)	32 (42.1)	44 (57.9)
Domain 4 (Environment)	20 (26.3)	56 (73.7)

[Table/Fig-2]: Quality distribution of quality of life of the participants (n=76).

A written informed consent translated into Bengali was obtained from all the individuals before commencement of the study. The study proposal was placed in front of Institutional Human Ethics Committee of Tripura Medical College and Dr. B.R. Ambedkar Memorial Teaching Hospital and ethical clearance was obtained prior to commencement of the study.

STATISTICAL ANALYSIS

Data were analysed using SPSS version 20.0 software. The mean raw scores and transformed scores for each domain of QOL was calculated and t-test and ANOVA were applied to check for significant difference ($p<0.05$ was considered as significant) among different domains with various sociodemographic variables.

RESULTS

The present study reveals, mean age of the respondents was 66.41 (±6.7) years and 41 (53.9%) of them were females. Among the participants, 77.6% were from 60-70 years age group. Mean age for males (67.74±7.5 years) was more compared to females (65.27±5.8 years). Most of the study participants, 70 (92.1%) were Hindu by religion and married were 50 (65.8%). Majority of them were literate, only 21 (27.6%) were below primary, followed by those having primary education 15 (19.7%) and 38 (50%) were housewives followed by businessman/shopkeeper, 18 (23.7%) by occupation. Majority belonged to nuclear family, 43 (56.6%) and from socioeconomic Class II [Table/Fig-3].

Domains of quality of life	Mean raw score	Mean transformed score as per WHOQOL BREF scale	Median transformed score as per WHOQOL BREF scale	SD
Domain 1 (Physical health)	20.53	48.53	50	9.34
Domain 2 (Psychological)	18.11	50.76	50	6.83
Domain 3 (Social relationship)	10.21	60.03	56	11.73
Domain 4 (Environment)	25.18	55.30	56	8.88
Final score		53.655	53	9.195

[Table/Fig-3]: Scores of different domains of quality of life of the study participants (n=76).

The study revealed that higher proportion of elderly population had poor QOL in all four domains i.e., Physical, Psychological, Social Relationship and Environment domains as represented in [Table/Fig-2].

The mean QOL scores were maximum in Social Relationship domain (60.03±11.73), followed by Environment (55.30±8.88) as per WHOQOL-BREF scale. The lowest mean score was seen in Physical domain (48.53±9.34). The overall total mean score was 53.655 [Table/Fig-3].

The [Table/Fig-4] has shown the comparison of mean scores in all four domains of QOL with different sociodemographic variables. Married persons have less score (49.18±6.11) in Psychological domain compared to others (53.81±7.23) such as unmarried, widowed, widower and this difference was found to be statistically significant (p-value=0.004). The difference of score in Psychological domain and Environment domain among different Socioeconomic Status (SES) was found to be statistically significant (p-value<0.05).

The [Table/Fig-5] is showing the association between various sociodemographic factors with poor or good QOL across all the four domains. This table reveals that QOL worsened in all four domains with increase in age, though the difference was not found to be statistically significant. Majority of the female participants showed poor QOL in all the domains except for Environment domain and females had significantly (p-value=0.047) worse Social relationship than males. Surprisingly, the married participants showed higher prevalence of poor QOL in all four domains compared to others like widowed, widower, divorced, separated etc., and the difference was found statistically significant (p-value=0.005) in Psychological domain. Illiterate and unemployed elderly persons showed higher prevalence of poor QOL than the literate and the employed respectively, except for Environment domain, where the employed had higher prevalence of poor QOL than the unemployed. Psychological domain was found to be significantly better in SES Class I and IV than SES Class II and III (p-value<0.001) whereas, social relationship was better (p-value=0.013) among higher classes (SES Class I and II) than Class III and IV.

DISCUSSION

The present study revealed that mean age of the respondents was 66.41 (±6.7) years and 53.9% of them were females similar to the study finding of Praveen V and Anitha MR [10]. In this study the elderly had better QOL score in Social relationship domain (60.03) compared to other domains, similar to what was found in studies conducted by Akbar F et al., in Siliguri sub-division of district Darjeeling and Sowmiya KR and Nagarani in rural Tamil

Variables		Frequency (%)	QOL domain score Mean (±SD)			
			Physical	Psychological	Social relationship	Environment
Gender	Male	35 (46.1)	49.13 (±7.88)	50.47 (±6.36)	59.77 (±12.21)	53.51 (±13.20)
	Female	41 (53.9)	47.13 (±12.15)	51.43 (±7.93)	60.61 (±10.78)	55.52 (±8.77)
p-value of t-test			0.473	0.576	0.778	0.506
Age (years)	60-70	59 (77.6)	49.71 (±8.80)	51.09 (±6.87)	62.37 (±10.39)	54.26 (±11.12)
	More than 70	17 (22.4)	47.51 (±9.77)	50.49 (±6.87)	58.02 (±12.54)	54.00 (±12.86)
p-value of t-test			0.309	0.706	0.108	0.927
Religion	Hindu	70 (92.1)	48.13 (±9.08)	50.7 (±6.96)	59.54 (±11.45)	53.93 (±11.96)
	Muslim	6 (7.9)	53.17 (±11.92)	53.00 (±5.02)	65.67 (±14.58)	56.33 (±13.60)
p-value of t-test			0.591	0.330	0.284	0.509
Marital status	Married	50 (65.8)	48.84 (±8.53)	49.18 (±6.11)	59.98 (±11.48)	53.52 (±11.31)
	Others	26 (34.2)	47.92 (±10.89)	53.81 (±7.23)	60.11 (±12.44)	55.27 (±13.42)
p-value of t-test			0.688	**0.004***	0.962	0.551
Type of family	Nuclear	43 (56.6)	50.07 (±6.93)	50.19 (±6.72)	59.72 (±12.78)	52.72 (±13.20)
	Joint	33 (43.4)	46.51 (±11.58)	51.51 (±7.01)	60.42 (±10.38)	55.94 (±10.17)
p-value of t-test			0.125	0.404	0.798	0.250
Education	Illiterate	8 (10.5)	40.00 (±11.45)	45.62 (±8)	52.37 (±15.3)	40.50 (±16.7)
	Below primary	21 (27.6)	50.38 (±10.28)	50.05 (±7.23)	62.19 (±10.61)	55.76 (±8.88)
	Primary	15 (19.7)	47.53 (±6.7)	52.40 (±4.97)	56.20 (±11.16)	54.53 (±7.26)
	Middle	14 (18.4)	48.29 (±7.55)	51.36 (±7.68)	58.93 (±10.37)	56.71 (±8.02)
	Secondary	10 (13.2)	53.20 (±8.84)	54.90 (±4.01)	67.50 (±10.16)	55.00 (±19.05)
	Higher secondary	5 (6.6)	45.20 (±7.82)	47.60 (±6.84)	58.80 (±12.95)	56.20 (±11.63)
	Graduate and above	3 (3.9)	54.33 (±7.51)	50.00 (±6)	66.67 (±9.71)	58.33 (±9.71)
p-value from ANOVA			0.055	0.098	0.084	0.056
Occupation	Unskilled labourer	2 (2.6)	53.00 (±4.24)	50.00 (±0.00)	62.50 (±9.19)	56.50 (±9.19)
	Skilled labourer	4 (5.3)	48.75(±10.69)	53.00 (±6.0)	68.75 (±8.96)	53.00 (±3.46)
	Housewife	38 (50.0)	47.47(±9.93)	50.84 (±6.69)	57.84 (±12.66)	54.00 (±13.35)
	Businessman/ shopkeeper	18 (23.7)	51.72(±5.86)	50.72 (±7.19)	62.89 (±10.24)	53.06 (±13.73)
	Retired government service holder	11 (14.5)	45.00 (±11.45)	51.18 (±8.61)	58.54(±10.24)	55.09 (±7.85)
	Self employed	1 (1.3)	63.00	44.00	69.00	69.00
	Unemployed	2 (2.6)	47.00 (±4.24)	47.00 (±4.24)	59.50 (±21.92)	53.00 (±4.24)
p-value from ANOVA			0.318	0.919	0.499	0.937
Socioeconomic status	SES CLASS I	29 (38.2)	48.00 (±11.6)	48.41 (±7.32)	59.24 (±11.94)	49.79 (±11.47)
	SES CLASS II	32 (42.1)	46.97 (±8.11)	51.53 (±6.72)	57.81 (±12.01)	53.50 (±11.63)
	SES CLASS III	7 (9.2)	54.29 (±2.93)	57.00 (±2.65)	70.57 (±7.02)	63.43 (±7.76)
	SES CLASS IV	8 (10.5)	51.62 (±6.46)	50.75 (±3.84)	62.50 (±8.99)	64.12 (±9.39)
p-value from ANOVA			0.211	**0.019***	0.060	**0.002***

[Table/Fig-4]: Comparison of different domains of quality of life with various sociodemographic factors (n=76).
'*' denotes significant p-values (p-value<0.05)
t-test was used in the above table to find out the difference between different domains of QOL with gender, age, religion, marital status, type of family and ANOVA for education, occupation and socioecnomic status

Nadu between April and October 2010 [11,12]. However, unlike our findings, Datta D et al., [13] in southern part West Bengal and Ganesh KS [6] in urban Puducherry, found lowest mean QOL score in Social relationship domain i.e., 39.62 and 36.68 respectively.

In the present study, Physical domain was worst affected among all four domains of QOL which might have affected the overall QOL of the study population. Males had better QOL score in Physical Health domain (49.13±7.88) as compared to females (47.13±12.15) but the scenario was just reverse in the other three domains. In contrast, Akbar F et al., and Datta D et al., found that male subjects had a higher mean score in all four domains compared to females in their studies indicating males having better QOL than females. However, they have found statistically significant difference only in Social relationships domain [11,13].

The present study showed that QOL was worse among older age group (age >70 years) which means increasing age might be a factor responsible for worsening of QOL among the geriatric population. Further qualitative research can be useful for better understanding of their own perspective of QOL to develop well directed measures towards the older people. Similarly, Barua A et al., in Karnataka, found the mean scores of the two groups of (60-69) years and ≥70 years differed significantly in the domains of physical (p=0.004), psychological (p=0.001) and social relations (p=0.016) [14].

In the present study, we did not find any significant difference between elderly persons of different religions in all the domains of QOL. Datta D et al., in their study also did not find any significant difference in QOL between elderly persons of different religions (p> 0.05) in any domain [13].

It was surprising that in the present study, married people were found to have less score (49.18±6.11) in Psychological domain than others (53.81±7.23) like unmarried, widowed and widower and the difference was statistically significant (p=0.004). Barua A et al., in

Sociodemographic variables		Physical		Psychological		Social relationship		Environment	
		Poor n (%)	Good n (%)	Poor n (%)	Good n (%)	Poor n (%)	Good n (%)	Poor n (%)	Good n (%)
Age group (years)	60-70	38 (64.4)	21 (35.6)	32 (54.2)	27 (45.8)	33 (55.9)	26 (44.1)	43 (72.9)	16 (27.1)
	>70	12 (70.6)	5 (29.4)	11 (64.7)	6 (35.3)	11 (64.7)	6 (35.3)	13 (76.5)	4 (23.5)
p-value		0.636		0.443		0.519		1.000#	
Gender	Male	22 (62.9)	13 (37.1)	19 (54.3)	16 (45.7)	16 (45.7)	19 (54.3)	27 (77.1)	8 (22.9%)
	Female	28 (68.3)	13 (31.7)	24 (58.5)	17 (41.5)	28 (68.3)	13 (31.7)	29 (70.7)	12 (29.3)
p-value		0.619		0.709		**0.047***		0.527	
Religion	Hindu	48 (68.6)	22 (31.4)	41 (58.6)	29 (41.4)	42 (60.0)	28 (40.0)	52 (74.3)	18 (25.7)
	Muslim	2 (33.3)	4 (66.7)	2 (33.3)	4 (66.7)	2 (33.3)	4 (66.7)	4 (66.7)	2 (33.3)
p-value		0.173#		0.394		0.233		0.651	
Marital status	Married	34.(68.0)	16 (32.0)	34 (68.0)	16 (32.0)	30 (60.0)	20 (40.0)	38 (76.0)	12 (24.0)
	Others	16 (61.5)	10 (38.5)	9 (34.6)	17 (65.4)	14 (53.8)	12 (46.2)	18 (69.2)	8 (30.8)
p-value		0.573		**0.005***		0.606		0.525	
Type of family	Nuclear	27 (62.8)	16 (37.2)	27 (62.8)	16 (37.2)	25 (58.1)	18 (41.9)	34 (79.1)	9 (20.9)
	Joint	23 (69.7)	10 (30.3)	16 (48.5)	17 (51.5)	19 (57.6)	14 (42.4)	22 (66.7)	11 (33.3)
p-value		0.529		0.212		0.961		0.224	
Educational status**	Illiterate	7 (87.5)	1 (12.5)	7 (87.5)	1 (12.5)	6 (75.0)	2 (25.0)	8 (100.0)	0 (0.00)
	Literate	43 (63.2)	25 (36.8)	36 (52.9)	32 (47.1)	38 (55.9)	30 (44.1)	48 (70.6)	20 (29.4)
p-value		0.251#		0.128#		0.455#		0.102#	
Occupation**	unemployed	28 (70.0)	12 (30.0)	24 (60.0)	16 (40.0)	27 (67.5)	13 (32.5)	28 (70.0)	12 (30.0)
	employed	22 (61.1)	14 (38.9)	19 (52.8)	17 (47.2)	17 (47.2)	19 (52.8)	28 (77.8)	8 (22.2)
p-value		0.415		0.526		0.074		0.442	
Socioeconomic status	CLASS I	20 (69.0)	9 (31.0)	22 (75.9)	7 (24.1)	18 (62.1)	11 (37.9)	25 (86.2)	4 (13.8)
	CLASS II	23 (71.9)	9 (28.1)	15 (46.9)	17 (53.1)	21 (65.6)	11 (34.4)	25 (78.1)	7 (21.9)
	CLASS III	2 (28.6)	5 (71.4)	0 (0.00)	7 (100)	1 (14.3)	6 (85.7)	3 (42.9)	4 (57.1)
	CLASS IV	5 (62.5)	3 (37.5)	6 (75.0)	2 (25.0)	4 (50.0)	4 (50.0)	3 (37.5)	5 (62.5)
p-value		0.224#		**<0.001#***		0.092#		**0.013#***	

[Table/Fig-5]: Association of quality distribution of different domains of quality of life with various sociodemographic variables (n=76).
[Chi-square test was used to find out association (denoted by p-value) in the above table
'*' denotes significant (p-value<0.05), '#' denotes p-values from Fisher's exact test,
**Education and occupation of the participants were re-grouped into illiterate and literate, unemployed and employed respectively for better understanding]

their study, found the mean scores of the two groups of single and married were significantly different in environment (p=0.012) and social relationship (p=0.002) domains [14].

Joint families have better score than nuclear families in all the domains of QOL except Physical Health domain though the difference was not statistically significant. Ganesh KS et al., in urban Puducherry, found QOL was significantly low in nuclear family [6].

This study also revealed people from lower socioeconomic class had significantly better QOL in Psychological and Environment domain (p-value <0.05). Illiterate persons had lower score in all the domains of QOL than literate persons in the present study. Similarly, Ganesh KS et al., found people who were illiterate had significantly less score in all the domains of QOL than people who had an educational level at the secondary level and above [6]. Again Qadri S et al., in their study in rural population of northern India showed that QOL was more in subjects who had graduated and currently married, belonged to non-scheduled cast and living in extended families (p<0.001) [15].

This study showed females having poor QOL in all four domains than males and significantly (p-value=0.047) in Social relationship domain (which consisted of personal relationship, social support etc.,). These might be improved if the elderly people could be engaged in recreational activities, peer groups, support from other family members etc. Unlike conventional thought and the study findings of Qadri S et al., [15] our study revealed married people had significantly worse QOL (p-value=0.005) than the others (widowed, widower, divorced and separated) in their Psychological domain. Periodic counselling session for the geriatric population to remove negative feelings, improve self-esteem, reading and teaching others in free time to improve learning and concentration, engaging in spiritual daily activities could help them to have a better QOL. In the present study, the middle class people were found to have better QOL than the upper and upper lower SES class (p-value <0.001). Again QOL score was higher among the self-employed group. Future scope for employment or re-employment of geriatric people according to their capability should be made to improve their QOL.

LIMITATION

A relatively smaller sample size and subjective variation in self-perception of different domains of QOL by the participants while interviewing might have affected the results. Also data on comorbidity were not gathered.

CONCLUSION

Overall poor QOL was reflected among the urban geriatric population in this study and improvement in personal relationships and social support for the elderly females were found to be important to improve their QOL. Counselling of the geriatric people especially the married, to incorporate positive thoughts, improve self-esteem, spirituality by attending spiritual programmes (bhajan-kirtans) and performing yoga, meditation etc., could also be beneficial to have a better psychological QOL. Economic stability by means of various social security, self-employment schemes by government for the elderly and involvement in self-help groups is of utmost importance especially for the lower class population in urban areas to improve their QOL.

REFERENCES

[1] Courtney M, Edwards H, Stephan J, O'Reilly M, Duggan C. Quality of life measures for residents of aged care facilities: A literature Review. Australasian Journal on Ageing 2003;22(2):58-64.

[2] WHO. Aging and Health. [Online] Available from http://www.who.int/mediacentre/factsheets/fs404/en/ [Last accessed on 2017 Aug 17]

[3] Rovan HH, Avan AS, Mirium H. Current and future prevalence of dependency, its relationship to total population and dependency ratios. Bulletin of WHO. 2004;82(4):251-58.

[4] Government of India Ministry of Statistics and Programme Implementation. Elderly in India- Profiles and Programmes 2016. [Online] Available from mospi.nic.in/sites/default/files/publication_reports/ElderlyinIndia_2016.pdf [Last accessed on 2017 Sep 20]

[5] HelpAgeIndia. State of elderly in India 2014; 2015. [Online] Available from https://www.helpageindia.org/images/pdf/state-elderly-india-2014.pdf [Last accessed on 2017 Aug 17]

[6] Ganesh KS, Majumdar A, G. Pavithra. Quality of Life (QOL) and its associated factors using WHOQOL-BREF among elderly in urban Puducherry, India. Journal of Clinical and Diagnostic Research. 2014 Jan;8(1): 54-57.

[7] Liverpool School of Tropical medicine. LQAS detailed implementation plan v1.0 Jun 2012. p1-28. [Online] Accessed fromhttp://www.lstmed.ac.uk/the-lqas-generic-toolkit [Last accessed on 2017 Sep 20]

[8] World Health Organization. WHOQOL-BREF Introduction, Administration, Scoring and Generic version of the assessment: Field Trial Version. Programme on Mental Health. 1996 Dec; [online] Accessed from http://www.who.int/mental_health/media/en/76.pdf. [Last accessed on 2017 Aug 17]

[9] Vasudevan J, Mishra K A, Singh Z. An update on B. G. Prasad's socioeconomic scale: May 2016. Int J Res Med Sci. 2016 Sept; 4(9): 4183-4186

[10] Praveen V, Anitha M R. Quality of life among elderly in a rural area.International Journal of Community MedicineandPublic Health. 2016 Mar;3(3):754-757

[11] Akbar F. Kumar M. Das N. Chatterjee S. Mukhopadhyay S. Chakraborty M. et al. Quality of Life (QOL) among geriatric population in Siliguri Sub-division of District Darjeeling, West Bengal. Nat J Res Com Med. 2013;2(1):1 – 78.

[12] Sowmiya KR, Nagarani. A Study on Quality of Life of Elderly Population in Mettupalayam, A Rural Area of Tamilnadu. Nat J Res Com Med. 2012; 1(3):123-177.

[13] Datta D, Datta PP, Majumdar KK. Association of quality of life of urban elderly with socio-demographic factors. Int J Med Public Health 2015; 5(4):274-8.

[14] Barua A, Magesh R, Kumar Harsha HN, Mathew S. A Cross-Sectional Study on Quality of Life in Geriatric Population. Indian Journal of Community Medicine. 2007 Apr;32(2):146-47.

[15] Qadri S. Ahluwalia SK. Ganai A. Bali S. Wani F. Bashir H.An epidemiological study on quality of life among rural elderly population of northern India. International Journal of Medical Science and Public Health; 2013;2(3):514-522.

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FINANCIAL OR OTHER COMPETING INTERESTS: None.

Date of Submission: **Apr 29, 2017**
Date of Peer Review: **Aug 01, 2017**
Date of Acceptance: **Jan 02, 2018**
Date of Publishing: **Apr 01, 2018**