



### Short report

## Quality of Life and Restricted Activity Days Among the old aged

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### ABSTRACT

**Aims:** To determine the health related problems among the elderly; to determine the different domains of Quality of Life affected and Restricted Activity Days in elderly population. **Methods:** Community based cross sectional study on 200 geriatric subjects (>60yrs) by simple random sampling for a period of 6 months February 2010 to July 2010. WHOQOL-BREF scale was used to assess the Quality of Life. Data was analyzed statistically by chi-square test and Z test. **Results:** 72.5% were in the age group of 61 to 70 yrs, 52% were males and 50% belonged to poor socio-economic status and 94% were literates. Vision problems (64%), arthritis (55.5%), hypertension (47.5%), diabetes (38.5%) constituted the bulk of morbidity. Physical domain was affected significantly in quality of life. Mean duration of Restricted Activity Days among males and females is  $58.26 \pm 4.31$  days and  $60.55 \pm 4.42$  days per year and  $60.55 \pm 4.42$  days per year respectively. **Conclusion:** Vision problems, arthritis, hypertension, diabetes constituted the bulk of morbidity. Physical domain was affected significantly in quality of life. Geriatric clinics can improve the health status of the elderly population by screening to detect the morbidities early and creating the same awareness in them.

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### 1. Introduction

A restricted activity day, as defined in the National Health Interview Survey, is a day in which an individual spends over half of the day in bed, home from work or school, or cutting down on usual activities because of illness or injury[1].

From the beginning of the 20th century, human life expectancy at birth has almost doubled. The percentage of elderly people is also increasing worldwide. According to United Nations (2005) estimates, the population of the world has stood around 6.5 billion in the dawn of 21st century and is expected to rise to 9.3 billion by 2050. Also, proportion of the elderly to the total population is expected to increase from 10 percent in 2000 to 15 percent by 2025 and over 21 percent by 2050.

In India, more than one-fourth of aged population is disabled and age-specific disability rates and the severity of disablement

increase with age. In the age-groups young-old (60-64), middle-old (65-69), older-old (70-74) and oldest old (75 and above), the percentages of disabled persons are 36, 42, 51 and 61, respectively (NSSO, 2002)[2]. Geriatric health problems are often neglected, being old, weak, hard of hearing, partially blind and immobile, the aged seldom move out or approach for help and consultation. Each health problem in elderly is associated with restrictive activity. The number of restricted activity days experienced by an individual in a year is an important resource of functional activities and wellbeing assessment.

Hence this study was carried out with aim to determine the health related problems among the elderly and to determine the different domains of Quality of Life affected and Restricted Activity Days in elderly population.

### 2. Materials and Methods

A community based cross sectional study was done in old aged (>60yrs) residing in Vidyanagar, Hubli. Simple random sampling was done with a sample size of 200 obtain by considering the percentage of disability (i.e. 48%) among old aged (>60yrs) population using National sampling survey 2002 report [2].

Study was conducted over duration of 6month from February 2010 to July 2010. A structured questionnaire was prepared to obtain the information on socio- demographic profile, health

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problems and related restricted days. The quality of life was assessed by WHOQOL-BREF scale consisting 26 questions related to physical, psychological, social and environmental domains [3]. Data was analyzed statistically using chi-square test and Z test at level of significance at  $P<0.05$  by using SPSS 13.0.

### 3.Results:

Mean age of males 68.32( $\pm$  6.13) and females 68.46 ( $\pm$  8.51), Majority 72.5% of the study population was in the age group of 61 to 70 yrs, while 52% of them males and 50% of them belonged to poor socio-economic status and majority 94% were literates in the study population.

**Table 1. shows the Socio-Demographic profile of the study population.**

<b>Socio-Demographic Profile</b>		<b>N=200</b>	<b>%</b>
<b>Age</b>	61 to 70	145	72.5
	71 to 80	40	20
	>80	15	7.5
<b>Sex</b>	Male	104	52
	Female	96	48
<b>Socio Economic Status</b>	Higher	59	29.5
	Middle Class	41	20.5
	Poor	100	50
<b>Education</b>	Literate	188	94
	Illiterate	12	06

**Table 2: Morbidity profile of elderly people**

<b>Diseases</b>	<b>Male (n= 104)</b>	<b>Female (n=96)</b>	<b>Total</b>
<b>Vision problems</b>	63	65	128 (64%)
<b>Arthritis</b>	57	54	111(55.5%)
<b>Hypertension</b>	53	42	95 (47.5%)
<b>Type 2 DM</b>	46	33	79 (39.5%)
<b>Hearing Loss</b>	22	22	44 (22%)
<b>Respiratory Problems</b>	16	12	28 (13%)
<b>IHD</b>	11	4	15 (7.5%)
<b>Falls</b>	11	7	18 (9%)
<b>Osteoporosis</b>	7	20	27 (13.5%)
<b>Cerebro vascular Disease</b>	6	5	11 (5.5%)
<b>Varicose Vein</b>	6	5	11 (5.5%)
<b>Malignancy</b>	1	3	4 (2%)
<b>BPH</b>	19	0	19 (9.5%)

Vision problems (64%), arthritis (55.5%), hypertension (47.5%), diabetes (38.5%) constituted the bulk of morbidity among elderly. There was no significant association among males and females in any of the morbidities except for osteoporosis ( $p < 0.05$ ) i.e it was more common in females.

In the study group majority (30%) of them had 3 morbidities, followed by 19.5% of them had 4 morbidities, 19% of them had 2 morbidities. Mean duration of Restricted Activity Days among males and females is  $58.26 \pm 4.31$  days per year and  $60.55 \pm 4.42$  days per year respectively.

The mean scores of males and females using WHOQOL-BREF scale differed significantly ( $p=0.006$ ) in the physical domain and rest of domain was not significant between males and females.

Mean scores of age group <70yrs and >70yrs differed significantly ( $p=0.05$ ) in the physical domain. Hence we conclude that only physical domain was affected significantly. Interestingly the mean scores of physical domain ( $p=0.001$ ), social domain ( $p=0.015$ ), and total score ( $p=0.015$ ) were significantly more in the elderly with less than 3 health problems.

**Table 3 shows the mean score of physical, psychological, social and environmental domains in assessing quality of life.**

	<b>Mean scores of the domain</b>				
	<b>Physical (SE)</b>	<b>Psycho- logical (SE)</b>	<b>Social (SE)</b>	<b>Environ- mental (SE)</b>	<b>Total (SE)</b>
<b>Sex</b>					
Male	60.1 (1.25)	56.62 (1.33)	43.16 (1.73)	58.26 (1.56)	218.13 (4.10)
Female	54.82 (1.44)	55.59 (1.48)	42.66 (1.82)	58.94 (1.62)	212.01 (4.56)
p value for z test	0.006*	0.608	0.842	0.764	0.319
<b>Age</b>					
<70yrs	58.74 (1.14)	56.23 (1.13)	42.38 (1.39)	59.07 (1.35)	216.42 (3.57)
>70yrs	54.53 (1.79)	55.55 (2.09)	44.35 (2.69)	57.31 (2.02)	212.03 (5.92)
p value for z test	0.05*	0.866	0.485	0.485	0.522
<b>No of Health problems</b>					
<3	60.19 (1.15)	57.38 (1.23)	45.18 (1.50)	57.96 (1.42)	220.7 (3.73)
>3	52.87 (1.60)	53.87 (1.65)	38.86 (2.17)	59.70 (1.83)	205.3 (5.11)
p value for z test	0.0001*	0.091	0.015*	0.459	0.015*

### 4.Discussion

In the study Mean age group of the population is 68.39 and majority (72.5%) of them belonged to the age group of 61 to 70 yrs and 52 % of the participants were males.

Similar observations were made by Ankur Barua et al in study on A Cross-Sectional Study on Quality of Life in Geriatric Population. Mean age group was 65.8, majority (80%) in the age group of 60 to 69 yrs and 60 % of them were males[4]. This observation was consistent with the results of census 2001. 7.5% of population in India were in the age group of 60 to 70 and 2.9% in the age group of >70yrs [5].

The mean duration of restricted days of activities in our study was 59.4 days where as in the study by Kosorok MR et al [6] in a study on Restricted Activity Days among Older Adults was 31 days. The study found that 64.5 of elderly people presented with less than three morbidities. Only 5% of elderly subjects presented with no morbidity. Mean morbidities among males was 1.38 (SD 0.49) and among females 1.32 (SD 0.47)

In Kamlesh Joshi et al a study on Morbidity profile and its relationship with disability and psychological distress among elderly people in Northern India found 83% of elderly people

presented with more than three morbidities and means of 5.9 (SD 3) and 6.4 ( SD 2.8) morbidities in males and females, respectively[7].

Fuchs et al in a study on a community dwelling Israeli Jewish population aged 75–94 years, noted that 44.4% of elderly people had three or more morbidities, 20.1% had two morbidities, 22.2% had only one morbidity, and the rest (13.3%) had no medical problems. The mean number of morbidities among elderly people aged 75–94 years was 2.2 (SD 1.5). The mean number of morbidities among males was 1.9 (SD 1.4), and among females 2.4 (SD 1.6) [8].

Sunder et al. observed that multiple morbidities were common in 89.6% of the elderly people (65+ years) compared with 72.5 % of elderly people (61 to 70 years) in our study.

In the study most common morbidity is vision problems (64%), followed by arthritis (55%), Hypertension (47.5%), Type 2 Diabetes Mellitus (38.5%) and Hearing loss (22%) [9].

Joshi et al have reported the visual impairment in 61% of the population above the age of 60 years. Sunder et al in their study reported visual impairment in 65% of the elderly in rural areas. In our study mean scores of age group <70yrs and >70yrs differed significantly ( $p=0.05$ ) in the physical domain. Mean scores of males and females differed significantly ( $p=0.006$ ) in the physical domain and other domains was not significant between males and females.

Ankur Barua et al [4] observed that the mean scores of the two age groups of (60-69) years and  $\geq 70$  yrs differed significantly in the domains of physical ( $P=0.004$ ), psychological ( $P=0.001$ ) and social relations ( $P=0.016$ ). Also, this difference between the two groups was found to be statistically significant for the total mean score of all the domains ( $P=0.006$ ). The total mean score, as well as the mean scores in each of the 4 domains for both males and females were found to be similar. This difference between the two groups was not found to be statistically significant for any of these 4 domains.

## 5.Conclusion

Vision problems, arthritis, hypertension, diabetes constituted the bulk of morbidity. Physical domain was affected significantly in quality of life. Geriatric clinics will improve the health status of the elderly population by screening and detecting the morbidities early and creating the same awareness in them.

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