

A cross sectional study to evaluate quality of life in geriatric patients having chronic diseases in Rajasthan

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Abstract

Background:

Introduction: This study is about explaining how elderly people with chronic disease experience their lives, their emotional reactions, their social & physical functions and their adaptation to life.

Methodology: A cross sectional analytical study was conducted in wards and OPD of medicine department of associated hospitals of S.N. Medical College, Jodhpur, and Rajasthan. This study included a total of 200 elderly patients. Out of which 100 elderly patients were having chronic diseases and rest of 100 were not having chronic diseases (which had been used as control). Data were collected by means of questionnaire & clinical examination.

Results: Male elderly had better mean QOL score than Female elderly. Patients who were widowed had poorer mean QOL score (434 ± 137.6) than in patients who were living with spouse (454.7 ± 171.11). Patients living alone had mean QOL score (452.3 ± 71.6) and patients living with family had score (448.09 ± 164.7) that was slightly better. Patients living in rural area had better mean QOL score (477.1 ± 157.4) than patients living in urban area (435.9 ± 164.1). In study group mean quality of life (QOL) score was decreasing with increasing age up to 79 year but after age 80 year and above mean quality of life score was better. There was negative relationship between presence of chronic disease and QOL in elderly. All the chronic diseases were decreasing QOL score in elderly.

Conclusion: Geriatric patients require different approach for the treatment of chronic disease because in this population there are several factors which influence the overall management of chronic disease. So all the clinician need to consider the overall quality of life as the very important parameter to look for, in the best management of chronic disease in elderly.

Keywords: Geriatric patients, demographic variables, QOL score

Introduction

Quality of life is a subjective concept, it includes not only disease physical symptoms, signs

and its functional consequences but also subjective life satisfaction, happiness, and the overall value one places on life at any given time. Hence, factors such as health status, extent of disability, perceptions about illness, available social support and psychological well-being are considered important in determining the quality of life, especially in elderly ^[1, 2, 3]. Elderly people experience a variety of chronic diseases because of biological degeneration, with health problems being almost inevitable in the last period of human life ^[4]. Because of effect on multiple dimensions of health, chronic diseases contribute to the reduction in the quality of life in elderly, so impact of chronic disease on quality of life in elderly should be assessed and monitored ^[5]. In clinical practice, when elderly suffering from chronic diseases are properly monitored in all aspects of life than outcome of treatment is better. Assessing and monitoring the quality of life of elderly suffering from a chronic disease are important in the planning of intervention strategies also. This study is about explaining how elderly people with chronic disease experience their lives, their emotional reactions, their social & physical functions and their adaptation to life ^[6, 7].

Material and Method

The study was an analytical study which included a total of 200 elderly patients presenting in outdoor and admitted in wards of medicine department of associated hospitals of Dr. S.N. Medical College, Jodhpur, and Rajasthan. Out of which 100 elderly patients were having chronic diseases and rest of 100 were not having chronic diseases (which had been used as control). An informed written consent was obtained.

Inclusion criteria

The study included all elderly patients >60 year, having chronic disease & willing to participate in the study.

Exclusion criteria

Patients who were critically ill.

Methodology

1. Data were collected by means of questionnaire & clinical examination. It had been divided into three sections: the first section concerning socio-demographic characterization, the second section assessed the existence of a chronic disease and had been composed of the clinical examination, the third section had been composed of the Short-Form Health Survey 36 Item Scale (SF36 questionnaire) ^[7].
2. Cases were compared with the control.

Scoring rules for the RAND 36-Item Health Survey ^[8]

Scoring the RAND 36-Item Health Survey is a two-step process. First, precoded numeric values are recorded per the scoring key. All items are scored so that a high score defines a more favorable health state. In addition, each item is scored on a 0 to 100 range so that the lowest and highest possible scores are 0 and 100, respectively. Scores represent the percentage of total possible score achieved. In step 2, items in the same scale are averaged together to create the 8 scale scores. Items that are left blank (missing data) are not taken into

account when calculating the scale scores. Hence, scale scores represent the average for all items in the scale that the respondent answered.

Sample size: Sample size was calculated to be 21 subjects in each group to verify an expected difference of 32.1% in proportion of poor QOL of geriatric patients with or without chronic disease (as per reference article). Sample size was calculated at alpha error 0.05 and study power 90%.

Results

Table 1: Demographic data of geriatric patients

Variables (gender)	Percentage
Male	66%
Female	34%
Age group	
60-69	44
70-79	46
>80	10
Residence	
Rural	30%
Urban	70%
Marital status	
Married	69%
Widow	31%
Type of family	
Living with family	95%
Living alone	5%

In table no 1 66% were male, while only 34% were females.70% of them were belonged to urban area, and majority of them i.e. 69% were married and 95% were living with their family.

Table 2: Diseases prevalent in geriatric patients and mean QOL (quality of life) score

Disease	Mean QOL	
	Mean	S.D.
TB (Tuberculosis)	431.1	189.8
COPD (Chronic Obstructive Pulmonary Disease)	467.8	156.7
ILD (Interstitial Lung Disease)	449.4	27.1
IHD (Ischemic Heart Disease)	457.0	144.9
HT (Hypertension)	500.2	136.9
CLD (Chronic Liver Disease)	413.3	58.7
CKD (Chronic Kidney Disease)	363.8	122.6
CVA (Cerebro Vascular Accident)	243.5	94.1
Seizure	471.1	197.9
Psychiatric Illness	306.1	122.5
DM (Diabetes Mellitus)	408.8	170.5
Osteoarthritis	437.8	115.7
Cancer	411.9	117.6
Other	415.8	164.9

In table no 2 diseases prevalent in geriatric patients are TB, COPD, ILD, IHD, HTN, CLD,

CKD, CVA, Seizures, DM, Osteoarthritis and cancer.

Table 3: Association of mean QOL score with demographic profile

Gender	Mean QOL Score	
	Study Group (Mean \pm SD)	Control group (Mean \pm SD)
Male	471 \pm 164	642 \pm 112
Female	423 \pm 155	578 \pm 126
Age group(yrs.)		
60-69	442 \pm 175.1	659.3 \pm 114.4
70-79	438 \pm 155.9	577.9 \pm 92.7
\geq 80	522.2 \pm 103.6	498.7 \pm 120.8
Marital Status		
Married	454.7 \pm 171.11	641.4 \pm 112.4
Widow	434 \pm 137.6	539.5 \pm 116.9
Residence		
Rural	477.1 \pm 157.4	626 \pm 98.7
Urban	435.9 \pm 164.1	619.5 \pm 130.6
Living status		
Living with family	448.1 \pm 164.7	637.7 \pm 102.6
Alone	452.3 \pm 71.6	413.8 \pm 142.6

In table no 3, elderly males had better mean QOL score (471 \pm 164 in study group, 642 \pm 112 in control group) than elderly females (423 \pm 155 in study group, 578 \pm 126 in control group) in study group as well as in control group. Elderly patients who were widowed had poorer mean QOL score (434 \pm 137.6 in study group, 539.5 \pm 116.9 in control group) than patients who were married and living with their spouse (454.7 \pm 171.11 in study group, 641.4 \pm 112.4 in control group). In our study patients living with family had score 448.1 \pm 164.7 in study cases, score 637.7 \pm 102.6 in control cases. Patients living alone had score 452.3 \pm 71.6 in study group, score 413.8 \pm 142.6 in control group.

In our study patients living in rural area had mean QOL score 477.1 \pm 157.4 in study patients, 626 \pm 98.7 in control patients and in patients living in urban area had mean QOL score 435.9 \pm 164.1 in study patients, 619.5 \pm 130.6 in control patients.

Discussion

The present study was conducted at Mahatma Gandhi Hospital attached to Dr. S. N. Medical College, Jodhpur in a total of 200 elderly patients to analyze the Quality of life in geriatric patients having chronic diseases through self-reporting based subjective analysis. There is scarcity of this type study in elderly from India. Assessment of elderly is itself very important in its own way, together with chronic diseases and QOL it becomes more important in personal, social and demographic point of view. Hence this study has been done to assess all these parameters.

In our study, out of 100 study patients 66 were males and 34 were females. According to Population Census 2011, the sex ratio in elderly population is 1033 females to 1000 males^[9]. Despite the higher proportion of females in population, there were fewer females in study, probably reflecting lesser access to medical care for females.

In our study, out of 3 age groups, maximum patients were in group 70-79 year (46 patients). In age group 60-69 year total 44 patients (slightly lesser) were present. Probably reflecting somewhat lesser presence of chronic diseases in this age group than age group 70-79 year. Aged 80 year or above were only 10 patients, probably reflecting that either these patients are not able to reach to hospital or up to this age most of people are not able to survive.

In our study, out of 100 cases studied 70% patients were living in urban area and 30% patients were living in rural area. While according to Population Census 2011 71% of elderly population (8.8% share of elderly in total population %) reside in rural areas while 29% of elderly population (8.1% share of elderly in total population) are in urban areas ^[9]. It is probably reflecting lesser access of rural elderly to medical care.

Out of 100 cases studied 31% patients were widowed and 69% patients were married and living with their spouse. Majority of patients (95%) were living with their family and 05% patients were living alone. According to Population Census 2011 more than 56% of elderly persons live with their spouse and 32% of aged persons live with their children.

In our study mean QOL score according to age group was worst in 70-79 year age group. In aged 80 year or above the mean QOL score was best. But the overall score is low in diseased elderly as compare to non-diseased elderly. Probably this reflects that when person have crossed 80 years of life they have survived all the odds of life including many diseases. They have overcame their expectations, desires, socialization. They have gradually accepted age and age related problems. Thus less effect on various aspects of QOL. Effect of disease is less than the effect of age itself in this group. While other two age groups effect of disease is more so in diseased group mean quality of life score is lower than non-diseased group. In study conducted by Canbaz S *et al.* and other study conducted by Kumar D mean quality of life score was decreasing with age ^[10, 11].

In our study elderly males had better mean QOL score (471 ± 164 in study group, 642 ± 112 in control group) than elderly females (423 ± 155 in study group, 578 ± 126 in control group) in study group as well as in control group. According to Population Census 2011 despite illness elderly men more feel that they had a better health condition as compared to elderly women. Study conducted by Ibrahim T M *et al.* on elderly in Iraq showed that the QOL of men was in general is better than women. The relation between marital status and wellbeing of the elderly has been proven in various studies. In our study elderly patients who were widowed had poorer mean QOL score (434 ± 137.6 in study group, 539.5 ± 116.9 in control group) than patients who were married and living with their spouse (454.7 ± 171.11 in study group, 641.4 ± 112.4 in control group). In both study and control group this finding is consistent. Greatest effect was seen on emotional and social aspects of QOL. Hence living with their spouse in general improved their quality of life and wellbeing ^[12, 13, 14].

In our study patients living with family had score 448.1 ± 164.7 in study cases, score 637.7 ± 102.6 in control cases. Patients living alone had score 452.3 ± 71.6 in study group, score 413.8 ± 142.6 in control group. In study group disease effect was irrespective of they are living with family or not whereas in control group how they were living mattered. Another factor was that the number of patients who were living alone were very low than the patients who were living with family and there were many other factors present which were influencing the score so final comment could not be made.

In our study patients living in rural area had mean QOL score 477.1 ± 157.4 in study patients, 626 ± 98.7 in control patients and in patients living in urban area had mean QOL score 435.9 ± 164.1 in study patients, 619.5 ± 130.6 in control patients. According to Population Census 2011 66% of elderly men and 28% of elderly women in rural areas participate in economic activity while in urban areas 46% of elderly men 11% of women are economically active ^[9]. Thus rural people are economically less dependent, they feel respect in family and better social status ^[15].

In our study best quality of life score (500.2 ± 136.9) was in patients of hypertension. Because hypertension does not alter patient's personal routine activities, social activities. With hypertension patients does not get emotionally down, very less effect on activities of daily living and thus less effect on Quality of life.

In our study second best score i.e. 471.1 ± 197.9 was in patients of seizure disorder. Worst Quality of life score i.e. 243.5 ± 94.1 was in CVA patients. While patients having psychiatric

illness i.e. 306.1 ± 122.5 and CKD i.e. 363.8 ± 122.6 had also very poor Quality of life score. Patients with tuberculosis had score 431.10 ± 189.8 , COPD patients had score 467.8 ± 156.7 , ILD patients had score 449.4 ± 27.1 , IHD patients had score 456.96 ± 144.9 , CLD patients had score 413.3 ± 58.7 , Diabetes patients had score 408.77 ± 170.5 , osteoarthritis patients had score 437.79 ± 115.7 , cancer patients had score 411.9 ± 117.6 .

Conclusion

There are several factors which influence the overall quality of life of elderly, before planning and strategies making all these factors should be taken into considerations. Both government and society have the responsibility of taking care of elderly because ageing does not just affect the elderly, it affects everyone in family and then in society and then in country.

Geriatric patients require different approach for the treatment of chronic disease because in this population there are several factors which influence the overall management of chronic disease. So all the clinician need to consider the overall quality of life as the very important parameter to look for, in the best management of chronic disease in elderly.

Not only objective but also subjective assessment of patients is very important in overall management of patient, especially in elderly patient having chronic disease.

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