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Original Article

Quality Of Life in Stroke Patients - A Qualitative Study

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Abstract

Introduction: In India stoke is a leading cause of death and acquired human disability. A review of stroke outcome measures in 174 acute stroke trials showed that death was recorded in 76%, impairment in 76%, disability in 42% and handicap in only 2%. One dimension that is rarely measured is health-related quality of life (HRQOL) which aims to assess the impact of disease from the perspective of the patient. Although there is an association between neurological deficits and QL, they are not synonymous.

Objectives: To study the health related quality of life with patients of stoke within 3 months of stroke.

Methodology : Study Settings : Hospital based study- A continuation of Stroke Registry
Sample Size : We took 20 patients from the registry
The patients with fresh stoke attack and also who were attending the follow up within the first 3 months of the attack was enrolled into the study. Basic demographic data and the data of stroke outcomes were taken. HRQOL was evaluated using the WHO BREF.

Results: It was seen that majority (55%) of patients expressed a fair physical domain post stroke. About 40% were of opinion that their physical domain was poor. Assessing the psychological domain, majority of the patients said it was poor, 40% said that it was fair. About half (50%) of the patients showed that they had poor environmental domain, whereas only 35% it was fair.

Conclusion: The quality of life is hampered by stroke in majority of the patients.

Introduction

Stroke remains one of the major chronic illnesses world-wide that health-care organizations will need to address for the next several decades. This is because it can affect virtually all human functions [(1)], and unlike other disabling conditions, the onset of stroke is sudden, leaving the individual and the family ill-prepared to deal with its sequel [(1)] cerebrovascular disease is the most prevalent neurological disorder in terms of both morbidity and mortality. [(2)] In India stroke is a leading cause of death and acquired human disability [(4).] A review of stroke outcome measures in 174 acute stroke trials showed that death was recorded in 76%, impairment in 76%, disability in 42% and handicap in only 2% [(5).]One dimension that is rarely measured is health-related quality of life (HRQOL) which aims to assess the impact of disease from the perspective of the patient [(6)]. Knowledge of factors associated with HRQOL after stroke would provide valuable information about strategies that professionals and providers of stroke care can address to improve HRQOL for stroke patients. Long term stroke studies have reported depression, disability, and poor social network [(7)], to be associated with poor HRQOL. So we did a small study in 2 months picking up 20 patients from stroke registry (INSPIRE), in the hospital to know health related quality of life with patients of stoke within 3 months of stroke.

Materials and Methods

We used WHO BREF questionnaire. The HRQOL assessment was done by asking the subjects themselves, thus excluding those who were too confused or dysphasic

to undergo these assessments themselves. We analysed WHO BREF by transforming the raw scores as given in manual of WHO BREF (0-100) and the mean of transformed score was put into Likert's scale as <40 as poor, 41-60 as fair, 61-80 as good and >81 as very good.

Results

In the study majority belonged to age group above 50 the distribution of which is, 35% belonging to age between 50-59, 25% each in 60-69 and above 70years of age. Only 15% belonged to age group of 40-49. 65% of them were men and the rest (35%) were women.

On WHO-BREF, it was seen that majority (55%) of patients expressed a fair physical domain post stroke. About 40% were of opinion that their physical domain was poor and the rest said that it was good (5%). Physical domain was fair in all age groups with little difference in the mean scores which is lesser in higher age group people. Assessing the psychological domain, majority of the patients said it was poor, 40% said that it was fair but only 5% said that it was good. Psychological domain follows a different pattern with < 50 having poor score and more than 60 having poor score but 50-59 have fairly good score Of the 20 patients, 15 (75%) of them were scaled to have poor social domain and the rest (25%) said it was fair. About half (50%) of the patients showed that they had poor environmental domain, whereas only 35% it was fair. About 15% of them said that it was good. Environmental domain was found to be better scored but again falls as fair to all the groups and the age group difference is not evident. Majority (60%) of the patients had poor general health status, 20% had fairly well, 15% had well and 5% were very good. The statistical analysis was done using Kruskal-Wallis Test, and the values are found to be insignificant. The domains in WHO-BREF, applied with respect to sex of the patient did not show much of the differences between the male and the female. A very slight deterioration in the psychological domain was seen in the females which was poor in both the sexes. Physical domain, social domain, and environmental domain were all better in women than in men, though social domain was poor in males and females whereas the other two domains were fairly good for both the sexes but statistically insignificant.Table-6 represents the physical, social and environmental domain seems to improve from the habits of alcohol consumption to smoking and the domains are good in those patients with no habits. The physical domain is poorer in the patients who consumed alcohol. Psychological domain does not show any great differences in the values, and all three categories are poor in post stroke people but no statistical significance. Physical domain is good in class II, III, and IV of socio-economic classes, without any observable differences. Among the all the people belonging to class two show a better physical domain than the others. Both psychological and social domains are seen to decrease as the socio economic status decreases. Psychological and social domains are poor in the patients coming from class III and class IV, and those from class II. Environmental domain is poorer in patients of class II and III, and is fairly good in patients of class IV.

Table 1 : Distribution of patients according to their Age

Age	Frequency	Percentage
40-49	3	15%
50-59	7	35%
60-69	5	25%
70 and above	5	25%
Total	20	100%

Table 2 : Distribution of patients according to their Sex

Sex	Frequency	Percentage
Female	7	35%
Male	13	65%
Total	20	100%

Table 3 : WHO-BREF domains based on the Likert's scaling system

Scale	Physical domain	Psychological domain	Social domain	Environmental domain
Very good	-	-	-	-
Good	5%	5%	-	15%
Fair	55%	40%	25%	35%
Poor	40%	55%	75%	50%
Total	100%	100%	100%	100%

Table 4 : Showing the Mean domain score using WHO BREF with respect to age group of the patients

Age	Physical domain	Psychological domain	Social domain	Environmental domain
40-49	44	33.33	37.67	54
50-59	46.57	42	30.43	42.14
60-69	42.8	37.6	23.8	40.2

Table 5 : Showing the Mean domain score using WHO BREF with respect to sex of the patients

Sex	Physical domain	Psychological domain	Social domain	Environmental domain
Female	51	33.85	33.14	46.71
Male	44	37.54	25.54	42.38

Table 6 : Showing the Mean domain score using WHO BREF with respect to habits of the patients

Habits	Physical domain	Psychological domain	Social domain	Environmental domain
Alcohol	39.37	34.37	21.67	39.12
Smoking	42.1	36.9	24.4	40.1
Absent	45.2	35.6	32	47.7

Table 7 : Showing the Mean domain score using WHO BREF with respect to socio-economic status of the patient

Socio-economic status	Physical domain	Psychological domain	Social domain	Environmental domain
II	50	44	44	38
III	42.5	37.5	22	37.5
IV	46.06	38.73	27.33	47.67

Table 8 : Distribution of SF-36 scoring using Likert's scale

General health	%	Physical factor	%	Social factor	%	Bodily pain	%	Mental health	%	Vitality	%
Excellent	Nil	Not limited	Nil	Not at all	Nil	Not at all	Nil	Excellent	Nil	Good	60%
Very good	5%	Limited a little	5%	Slightly	15%	A little bit	Nil	Very good	Nil	Fair	25%
Good	15%	Limited a lot	95%	Moderately	45%	Moderately	15%	Good	30%	Poor	15%
Fair	20%	----	--	Quite a bit	25%	Quite a bit	25%	Fair	55%	---	--
Poor	60%	----	--	Extremely	15%	Extremely	60%	Poor	15%	---	--
Total	100%	Total	100%	Total	100%	Total	100%	Total	100%	Total	100%

Table 9 : Showing the Mean score using SF 36 with respect to age of the patient

Age	General Health	Physical Functioning	Role Physical	Role Emotional	Social Factor	Bodily Pain	Mental Health	Vitality
40-49	3.33	11.00	4	4	6.00	3.67	22.33	9.33
50-59	2.57	11.71	4	4	1.28	3.14	24.57	8.71
60-69	4.00	12.60	4	4	1.60	4.20	20.80	8.40
70 & above	3.60	12.40	4	4	1.40	3.40	22.20	8.00

Table 10 : Showing the Mean score using SF 36 with respect to the sex of the patient

Age	General Health	Physical Functioning	Role Physical	Role Emotional	Social Factor	Bodily Pain	Mental Health	Vitality
Female	2.85	2.85	4	4	6.43	3.43	22.43	9.43
Male	7.08	11.54	4	4	6.38	4.00	22.84	8.08

Discussion

We could find that physical domain had scored fairly good status by majority of the patients which is not seen in other studies [11-14]. The impact of physiotherapy being a part of treatment as treatment protocol may be the answer to this varied finding as seen in earlier study [15]. It is also important to note that majority of our patients were daily wagers so may be their physical regain was much earlier. Our study showed that there was poor psychological domain which is also seen in earlier studies [12-15]. But interestingly our study showed that Mental health was fairly good in majority of patient (55%) which goes against the earlier study were depression, anxiety and mood shift was major problem post stroke [12,13,15]. Except one of the study others were done in settings other than India, so the family care giver may be a problem, or problem in care giving as a whole would be an issue for which the mental health would have deteriorated, whereas most of our patients have family care giver and get back to the home where they live with family, so anxiety and depression could be less in our patients. But WHO BREFF psychological domain determines individuals assessment of mental independence which shows a poor

range, which again implies on a good care giving practice to be motivated in these patients. We could observe that the social domain (WHO BREFF) showed majority to be poor. In earlier study [11] we could see that they had poor social factor. The social domain of WHO BREFF contained the association of person with society and his interaction with the social members which is terribly impaired. WHO BREFF talks about environmental domain which majority says fair but there is good also in this domain which is not similar to earlier studies [3, 4] where the environmental factor was poor. May be ours being a University hospital catering different type of people though most of them come from lower socio-economic status there are also few patients who are better off so must be their environmental domain scoring better. Also that the lower socio-economic people expect less in their living condition most of them score fairly well. We could see that majority of patients were from higher age group above fifty years as expected in all earlier studies [1-20]. Males being the most affected group which is also seen in earlier studies [1-20]. Earlier studies [16] said that females were more affected and emotionally distressed after stoke where we contradict to say that women cope better than male in all domains except for psychological domain were they score low. As know earlier by other studies [15, 21] as age increases the all the domain score decreases. But in psychological domain we could see that patients with age less than 50 had poor scores as compared to 50-59 years, may be the productive part of life being affected has also affected their mental status. Also the burden of being the breadwinner or care taker of the family cause for poor mental health. Stroke living behind a sequel must also be a part of the affect in decreased psychological score. We could see that as socio-economic status decreased domain scores also decreased, except for environmental domain were class IV had fair score compared to class II and III which we explained earlier saying lower expectation in living conditions in poor people.

Conclusion :

The quality of life is hampered by stroke in majority of the patients.

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