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A COMPARATIVE STUDY ON QUALITY OF LIFE AMONG PEOPLE LIVING WITH DISABILITY BEFORE AND AFTER ASSISTIVE DEVICE USE

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ABSTRACT

Introduction: Disability affects physical health, social relationship of people, life in the realms of family, friends, and neighbours, psychological state, and level of independence. The consequences of disability can have an impact at personal, interpersonal, family and social levels. This study attempts to compare the QOL (quality of life) among people living with disability before and after assistive device use and other associated factors among them. **Materials and Methods:** A longitudinal study was conducted in Bangalore urban district, Karnataka, India from January 2014 to December 2015. A total of 57 disabled persons were included in the study. WHO BREF questionnaire was used to assess QOL of the study participants. Questionnaire was administered on disabled persons prior to assistive device delivery and after six months of use. **Results:** The mean age of the respondents was 23.77±17.4 years. There was statistically significant difference between the means in physical and environmental domain of QOL after the intervention. There was no statistically significant difference in QOL before and after the intervention when total scores of all the domains were considered. There was no statistically significant difference in the QOL between different socio economic statuses of the respondents. **Conclusion:** After intervention there was statistically significant difference in the better QOL in the physical and environmental domain. QOL was found poor among respondents in the psychological domain as compared to other domains. This could be mainly because of their physical appearance, which makes them refrain from the participation in social gatherings and family functions.

KEYWORDS: Disability, QOL, WHO BREF, assistive devices.

INTRODUCTION

The World Health Organization has defined health as "a complete physical, mental and social well-being and not merely the absence of disease or infirmity." The concept has more recently been extended to include health related quality of life.[1,2] Disability affects physical health, social relationship of people, life in the realms of family, friends, and neighbours, psychological state and level of independence.[3] The consequences of disability can have an impact at personal, interpersonal, family and social levels.

The quality of life of disabled people has been studied in developed countries. As the various health indicators of population are improving in developing countries, attention should now shift to improve the quality of life of the marginalized and under-privileged groups from the perceptive of health. Disabled people are more likely to face considerable problems in the absence of a disabled-friendly environment. They are less likely to be educated, employed, or rehabilitated. Social segregation of disabled persons is extremely widespread.[4] As a result, most disabled people usually face insensitivity, contempt and cruelty. The dominance of a medical model of disability has tended to show people with disabilities as 'inferior, dependent and of little or no value.[5]

According to 2011, census data India had 2.1% disabled population.[6] Karnataka has a disabled population of 940, 643 out of whom 70.3% live in rural areas. The literate disabled population was 51.40% of the total disabled. Most of the families with disabled persons live below the poverty line.[7]

There are many studies available on the prevalence of disabilities in India. There are very few studies conducted among disabled young adults. Furthermore, there is a paucity of literature available on the quality of life (QOL) among disabled persons. This study attempts to compare the QOL among people living with disability before and after assistive device use and other associated concerns among them.

MATERIALS AND METHODS

A descriptive study was conducted in Bangalore urban district, Karnataka, India from January 2014 to December 2015. A total of 57 disabled persons were included in the study. The list of disabled persons was obtained from Health Management Information System (HMIS) data of the area. All disabled persons who can use any kind of assistive device were selected by community health workers (CHW). The Operational definition for physical disability (a) Persons having loco motor disability (b) loss or absence or inactivity of whole or part of hand or leg or both due to amputation, paralysis, deformity or dysfunction of joints which affected his/her "normal ability to move self or objects" (c) those with physical deformities in the body other than limbs such as, hunch back, deformed spine. Dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs were also treated as disabled.[8]

The interview schedule was divided into three parts. Socio demographic data was collected. Standard of living index scale was used to assess socioeconomic status of study participants. WHO BREF questionnaire[9] was used to assess QOL of the study participants. The interview schedule was translated to the local language for better understanding of the participants. Written informed consent was obtained from each respondent prior to the interview. WHO BREF scale had 26 questions, which were divided under four main domains namely: Physical, psychological, social and environmental. WHO BREF QOL questionnaire was administered on disabled persons prior to assistive device delivery. All of them were given basic training in the use of these devices and continued motivation sessions were organized. Various assistive devices were given free of cost according to the requirement of the persons. WHO BREF QOL questionnaire was again administered after six months by CHWs. SPSS version 16.0 was used to analyze the data.

RESULTS

The mean age of the respondents was 23.77±17.4 years. Minimum and maximum age of the respondents was 2 and 70 years respectively. Of all 26 (45.6%) were males which has been depicted in Table 1. Among the total 57 respondents, 55 (96.5%) were Hindus and rest of them were Muslims by religion. More than half of the respondents 32 (56.1%) belonged to middle socioeconomic status, while 21 (36.8%) were in high socioeconomic status group according to standard of living index (SLI).

Table 1 depicts the age and gender distribution (N=57).

Age (in yrs)	Sex		Total
	Male	Female	
0-19	13(46.4%)	15(53.6%)	28 (49.1%)
20-39	9(53%)	8(47%)	17 (29.8%)
40-59	2(25%)	6(75%)	8 (14.0%)
>60	2(50%)	2(50%)	4 (7.1%)
Total	26(45.6%)	31(54.4%)	57 (100%)

The assistive devices offered were mostly calipers, wheel chairs and gutters. In Table 2 overall QOL of the respondents was assessed in different domains like physical, psychological, social and environmental by using WHO BREF scale. Paired T test was done and there was statistically significant difference between the means in physical and environmental domain after the intervention. There was no statistically significant difference in QOL before and after the intervention when total scores of all the domains were considered. There was no statistically significant difference in the QOL between different socio economic statuses of the respondents.

Table 2 depicts paired T test between the domains.

DOMAIN	Before	After	P value
Physical (1)	11.10±3.42	12.20±3.93	**0.003**
Psychological (2)	12.53±4.12	12.63±3.17	0.804
Social (3)	11.04±3.87	11.52±3.49	0.091
Environmental (4)	13.96±2.09	14.67±1.94	**0.005**

DISCUSSION

The current study found that 45.6% participants were male. Socioeconomic status of the respondents in the study was compared with studies conducted in rural community of Karnataka where 51% respondents belonged to middle socio economic class[10] which was comparable with our study (51.6%) and 61% of them were from low socioeconomic class[11] which higher than our study population (7.1%)

There was statistically significant difference between the means in physical and environmental domain after the intervention. The QOL has been improved in the physical and environmental domain. There was no statistically significant difference in QOL in the psychological and social domain. Another study showed that QOL score was found to be low in psychological domain reflecting on negative feelings, bodily image, appearance, spirituality, self‑esteem and their thinking.[12] A study carried out in Nigeria among physical disabled persons showed high QOL scores under all four domains namely physical health, psychological health, social health, and environmental domains.[13] In a study conducted in two provinces namely‑Chiang Mai and Nakhon Ratchasima of Thailand QOL was reported to be at moderate level (79.3%).[11] There was no statistically significant difference in QOL before and after the intervention when total scores of all the domains were considered. There was no statistically significant difference in the QOL between different socio economic statuses of the respondents.

CONCLUSION

After intervention there was statistically significant difference in the better QOL in the physical and environmental domain. QOL was found poor among respondents in the psychological domain as compared to other domains. This could be mainly because of their physical appearance, which makes them refrain from the participation in social gatherings and family functions. Regarding linking them to social protection schemes, efforts need to be directed towards empowering them with knowledge on various social protection schemes and play a facilitative role so that it can be accessed easily without much difficulty.

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