



ASSESSMENT OF QUALITY OF LIFE OF PHYSICALLY DISABLED PERSONS ATTENDING TERTIARY CARE CENTRE OF NAGPUR: A CROSS SECTIONAL STUDY.

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ABSTRACT **Background:** Disabled persons remain neglected part of society and they also experience various barriers due to restriction of participation. The aim was to assess the quality of life (QOL) of physically disabled person by using WHO BREF scale.

Methods: A cross-sectional study was conducted among physically disabled persons aged more than 18 years of age attending OPD tertiary care center of Nagpur for disability certificate from rural area from 1st May to 31st September 2018.

Results: Out of 83 subjects; 49(59.04%) were male and 34(40.96%) were female. Mean \pm SD age in years was 40.5 \pm 12.9. Median domain wise score of quality of life was 50 in physical health, 50 in psychological health, 56 in social relationship and 50 in environmental health.

Conclusion: The QOL was found poor among respondents in the psychological domain as compared to other domains.

KEYWORDS : disability, activities of daily living, WHO BREF scale

INTRODUCTION

As per Census 2011, in India, out of the 121 Cr population, about 2.68 Cr persons are 'disabled which is 2.21% of the total population. Majority (69%) of the disabled population resided in rural areas (1.86 Cr disabled persons in rural areas and 0.81 Cr in urban areas).⁽¹⁾ Disability is a subject of human right because people with disabilities are vulnerable as they face many barriers to live healthy and better quality of life, experience inequalities, subject to violations of dignity and regarded as legally incompetent because of their disability.⁽²⁾⁽³⁾ Due to the specific aspects of disability and social stigma the situation for the disabled person and their family becomes more difficult.⁽⁴⁾

Historically, people with disabilities have been provided services that segregate them, such as residential institutions and special schools.⁽⁵⁾ Now with understanding that the people with disability are restricted not only by body but environmental factors plays important role.⁽⁶⁾ Hence policy has now shifted towards community and educational inclusion, and medically focused solutions have given way to more interactive approaches.⁽³⁾ The National Policy for Persons with Disabilities (2006) also aims at to create an environment that provides equal opportunities, protection of their rights and full participation in society.⁽⁷⁾

WHO defines Quality of Life as individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment.⁽⁸⁾

Assessment of impact of disease or disability on daily activity and behaviour, perceived health measures and disability status measures do not assess quality of life per se. Hence WHO developed a quality of life assessment tool for a genuinely international measure of quality of life. The WHO BREF scale includes assessment of quality of life pertaining to physical, psychological, social and environmental dimension of health as emphasized in WHO definition of health.⁽⁸⁾ This instrument focuses on individual's own views of their well-being. Most of the studies reported quality of life of physically disabled person is affected with varying degree affecting various domains more or less which varies with the regions and policies.⁽⁹⁾⁽¹⁰⁾⁽¹¹⁾

The concept of health has more recently been extended to include health related quality of life. Disability is not just a health problem or attribute of individuals, but it reflects the problems individuals experience in their interaction with society and physical movements. There are studies available regarding prevalence and predictors of

disability but there is scarcity of literature on quality of life of physically disabled person in India. This study is thus intended to fill this knowledge gap for studies in India and attempt to assess the quality of life (QOL) of physically disabled person by using WHO BREF scale.

METHODS

A cross-sectional study was conducted from 1 May to 31 September 2018 at Indira Gandhi government medical college and hospital, Nagpur. The study population was person with physical disability attending outpatient department (OPD) for disability certification from rural area of Nagpur. The certification facility is available daily except on holidays and it is only for rural person with disability.

As per eligibility criteria every alternate person with disability attending the outpatient department (OPD) was enrolled in the study. In this study purposively we enrolled 83 subjects. The eligibility criteria were participants who were age 18 years and above and permanently physically disabled were included in the study and those who were mentally retarded and severely ill were excluded.

The operational definition for permanent physical disability is a person having disability related to locomotion and movement due to loss or absence or inactivity of whole or part of hand or leg or both.⁽¹²⁾

A predesigned, pretested questionnaire consisting of general information regarding socio-demographic like age, gender, marital status, education, the occupation was used. For assessment of quality of life WHO BREF scale was used, which had 26 questions, which were divided under four main domains namely: Physical, psychological, social and environmental.⁽⁹⁾ The WHOQOL-BREF questionnaire contains two items from the overall QOL and general Health and 24 items of satisfaction that divided into four domains: Physical health with 7 items (DOMAIN 1), psychological health with 6 items (DOMAIN 2), social relationships with 3 items (DOMAIN 3) and environmental health with 8 items (DOMAIN 4). Each item is rated on a 5-point Likert scale. Each item of the WHOQOL-BREF is scored from 1 to 5 on a response scale. The raw domain scores for the WHOQOL were transformed to a 0-100 score according to guidelines. The higher scores denote higher QOL.

An institutional ethics committee's clearance was sought before initiation of the study. Data collection was done by interview method at disability certification outpatient department (OPD). Each informant was explained the nature and purpose of this study and their written informed consent was obtained.

Data was analyzed by using Microsoft Excel and Epi-Info version 7.2.

and descriptive analyses performed including frequencies, percentages, means, and standard deviations (SD). The mean score of each domain is calculated for comparison.

RESULTS

In all 83 rural subjects were considered for final analysis. Table 1 shows that out of 83 subjects; 49(59.04%) were male and 34(40.96%) were female. Mean ± SD age in years was 40.5±12.9. Majority of study participants were belonging to Class IV and V category of socio-economic status. Median domain wise score of quality of life was 50 in physical health, 50 in psychological health, 56 in social relationship and 50 in environmental health.

The majority of study participants were belonging to Class IV and V category of socio-economic status [37 (44.6%) & 36 (43.4%) respectively]. Majority 51(61.4%) were married, 53(63.9%) were Hindu by religion, 21(25.3%) and 20(24.1%) were upper primary and primary respectively, 39(47%) were unemployed and 45(54.2%) were living in nuclear family.

Table 1: Distribution of participants according to socio-demographic characteristics.

Variable	Male (n=49) No. (%)	Female (n=34) No. (%)	Total(N=83) No. (%)
Marital status			
Married	29(59.2)	22(64.7)	51(61.4)
Separated	2(4.1)	0(0)	2(2.4)
Unmarried	17(34.7)	10(29.4)	27(32.5)
Widow/Widower	1(2)	2(5.9)	3(3.7)
Religion			
Buddhist	13(26.5)	13 (38.2)	26 (31.3)
Hindu	33(67.3)	20 (58.8)	53 (63.9)
Muslim	3(6.1)	1 (2.9)	4 (4.8)
Education			
Post-graduate	6(12.2)	3 (8.8)	9 (10.8)
Senior secondary	9(18.4)	7 (20.6)	16 (19.3)
Secondary	7(14.3)	4(11.8)	11 (13.3)
Upper primary	10(20.4)	11 (32.4)	21(25.3)
Primary	14(28.6)	6 (17.6)	20 (24.1)
Illiterate	3(6.1)	3 (8.8)	6 (7.2)
Occupation			
Clerical	1(2)	4 (11.8)	5 (6)
Shop owner	2(4.1)	0(0)	2(2.4)
Farmer	10(20.4)	0 (0)	10 (12)
Semi-skilled	2(4.1)	1 (2.9)	3(3.6)
Skilled worker	4(8.2)	0 (0)	4 (4.8)
Unskilled	16(32.7)	4(11.8)	20 (24.1)
Unemployed	14(28.6)	25(73.6)	39(47)
SES			
I	1(2)	1 (2.9)	2 (2.4)
III	2(4.1)	6 (17.6)	8 (9.6)
IV	23(46.9)	14 (41.2)	37 (44.6)
V	23(46.9)	13 (38.2)	36 (43.4)
Type of family			
Joint	13(26.5)	9 (26.5)	22 (26.5)
Nuclear	27(55.1)	18 (52.9)	45 (54.2)
Three generation	9(18.4)	7 (20.6)	16 (19.3)

It was also found that the mean±SD overall quality of life score was 2.95±1.54 and the mean±SD overall health score was 2.88±0.85. There were 27(32.5%) participants who rated very poor overall quality of life. Thirty-one (37.3%) had responded as dissatisfied with their overall health. The mean±SD maximum score 55.33±24.03 was found in social relationships domain (DOMAIN 3), whereas mean±SD minimum score 51.36±10.93 was found in psychological domain (DOMAIN 2). (Table 2)

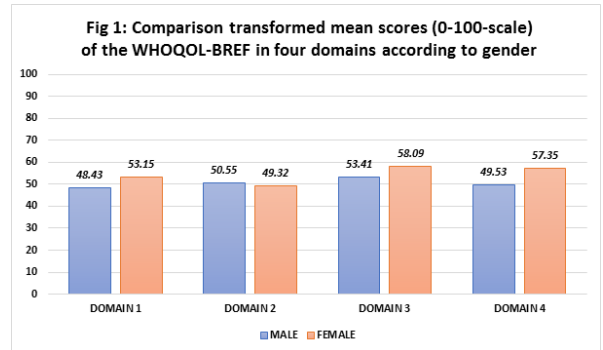
Table 2. QOL domain scores of respondents (N=83)

	Overall QoL	Overall health	Domain 1	Domain 2	Domain 3	Domain 4
Mean	2.95	2.88	51.36	50.05	55.33	52.73
Std. Deviation	1.54	0.85	10.93	6.83	24.03	18.52
Minimum	1	2	31	44	6	19
Maximum	5	5	69	69	100	88

*Domain: 1-physical health, 2- psychological, 3-social relationship, 4-

environment

Figure 1 reveals that comparison of transformed mean scores (0-100-scale) of the WHOQOL-BREF in four domains according to gender, in all the domains the females were having better score than males except in domain two. The major difference was found in domain 4 between mean scores of males and females. (Figure 1)



DISCUSSION

The present cross-sectional study was conducted in tertiary care centre among physically disabled person attending disability certification outpatient department (OPD) to assess the quality of life (QOL) of physically disabled person by using WHO BREF scale. There were 49 males and 34 females were studied. It was found that the mean overall quality of life score and the mean overall health score was poor. The lowest score was found in psychological domain. In all the domains the females were having better score than males except in psychological domain.

Attempt was made to highlight the sociodemographic characteristics of the physically disabled person. Majority 39(47%) were unemployed, majority of study participants were belonging to socio-economic status Class IV and V [37 (44.6%) & 36 (43.4%) respectively], 45(54.2%) were living in nuclear family.

The current study found that 27(32.5%) participants were single. Whereas in study conducted in Bangladesh and Karnataka reported higher proportion (47.5% and 46.2% respectively) of respondents were single.⁽¹¹⁾⁽¹³⁾ Only 18.75% of participants were single in a study conducted at Karnataka.⁽¹⁴⁾ In present study, among single the majority 17(62.96%) were male, out of this majority 10(58.82%) were more than 30 years of age. This indicates they are facing difficulties to get married.

In present study, 26.5% of participants were living in joint family, whereas in a study at Karnataka by Kuvalekar et al.(2015)⁽¹¹⁾ observed that 32.3% were living in joint family and high proportion (73.3%) of participants living in joint family was observed in study conducted by Ganesh et al.(2008).⁽¹⁴⁾ Majority in our study were living in nuclear family.

In the present study, the mean±SD overall quality of life score was 2.95±1.54 and the mean±SD overall health score was 2.88±0.85. The study conducted in Nigeria by Kaka et al.(2011) found that participant's overall perception of their QOL and health averaged 3.3 ± 0.8 and 3.6 ± 0.7 respectively.⁽¹⁰⁾ This indicates low overall quality of life and overall health among participants in our study.

In the present study, median domain wise score of quality of life was 50 in physical health, 50 in psychological health, 56 in social relationship and 50 in environmental health. The median domain scores in physical health and environmental health are similar (50) to study conducted in Karnataka by Kuvalekar et al.(2015) whereas their median domain scores were less than present study in psychological (44) and social relationship (50) domains.⁽¹¹⁾

In the present study, the mean±SD maximum score 55.33±24.03 was found in social relationships domain (DOMAIN 3), whereas mean±SD minimum score 51.36±10.93 was found in psychological domain (DOMAIN 2). In contrast, a study in Nigeria by Kaka et al.(2011) reported mean±SD maximum score 54.8 ± 11.4 was found in psychological domain and mean±SD minimum score 41.3 ± 10.9 was found in social relationships domain.⁽¹⁰⁾ With respect to above study, our study participants have better social relationships but poor in

psychological health.

In present study on comparing mean scores in four domains according to gender, in all the domains the females were having better score than males except in psychological domain (males = 50.55; females= 49.32). In contrast to our study, a study in Nigeria by Kaka et al.(2011) found better scores of males in all domains except psychological domain (males=54.1; females=55.6).⁽¹⁰⁾

The limitations in our study are the smaller number of participants and it is an hospital-based study. So, community-based study can give better estimates.

CONCLUSION

It is clear from the present study that domain wise score is low which indicate poor quality of life. The QOL was found poor among respondents in the psychological domain as compared to other domains. This may be due to poor acceptance of bodily appearance. It suggests that there is need of professional behavioral counseling and comprehensive rehabilitation support to minimize their sufferings. Efforts should be made to increase their social involvement with support from family and community.

DECLARATIONS

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