

ORIGINAL ARTICLE

Quality of Life among Disabled Persons- A Cross-Sectional Study in Rural Area of Dehradun District

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Abstract

Background: Quality of life is a multidimensional concept. Disability has a shattering effect on the quality of life with a predominantly negative effect on “marriage, educational attainment, employment and emotional state” as it jeopardizes personal, family and social life. Assessment of “quality of life” (QOL) in disabled is essential measure to bring “disabled” to core stream of civilization. **Aims & Objectives:** To assess the “Quality of Life” among disabled and to determine the “association between socio-demographic” factors with the quality of life. **Materials & Methods:** A “community based Cross-Sectional study” was conducted in rural area of Dehradun district. Multistage random sampling technique was used to enrol 2600 people in age group of 5- 59 years for the study. Semi-structured questionnaire was used to assess the socio-demographic information while WHO-BREF questionnaire was used to assess the QOL. **Results:** 61(2.3%) people were found to be disabled. Among those disabled individuals 52.5% were males and 47.5 % were females. In Psychological and Environmental domain, (65.6% & 55.7%) of the study participants respectively were partially satisfied, while 60.7% of the disabled persons were dissatisfied in social domain. However, 68.9 % disabled were satisfied in physical domain. Religion was found to be strong determinant for physical, psychological and environmental domain of QOL (p-value= 0.001, 0.032 and 0.047 respectively). Socio-economic status was also found to be significantly associated with psychological domain (p-value=0.000). **Conclusion:** Very few individuals were found to be disabled in the present study, but religion was strongly affecting the satisfaction level among disabled. Thus, religious issues should be addressed to improve quality of life among disabled persons and there should be a holistic approach for managing disabled person.

Keywords

QOL; WHO-BREF; Disabled person

Introduction

“World Health Organisation” has defined “Health as a complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO1983) the concept has more recently been extended to include health related “quality of life”. As the “quality of life” is refining in emerging countries, the “quality of life” of a person with “disability” is downgraded and deprived and studies must be made to improve the “quality of life” of such persons. (1)

Quality of life of the “disabled” people has been the subject material of study by various investigators all throughout the world. Some authors have shed light on Quality of life among disabled. (2,3,4,5) At present 15% people in the world live with a widespread range of disabilities and 10% of Indian population is disabled in one way or another. (2) Numerous societal welfare schemes envisioned by administration and other agencies are not fully successful in providing distinct privileges for the “disabled” though there is a change in approach, there is still a need for major changes to bring the disabled persons to the main stream of the society. There are grey areas in the complete accepting and that need to be discovered and simplified (1). The present study was undertaken to evaluate the Quality of life among disabled people aged 5-59 years, as less than 5 years children are covered under RBSK program and ≥ 60 years age people due to aging process develop some form of disabilities and also mostly they are under some health insurance scheme to provide them health security. However, as the economy of the country mainly depends upon the growing individuals and the working population, 5-59 aged individuals were focused upon in this study

Aims & Objectives

To assess the “Quality of Life” among disabled and to determine the association between “socio-demographic factors” with the quality of life among disabled aged 5-59 years

Material & Methods

It was a Cross-Sectional study conducted in a rural area of district Dehradun. Taking the prevalence of disability to be 15% (as per World Health Survey, 2011), relative allowable error as 10% of prevalence and assuming a non-response rate of 10%, the final sample size came out to be 2600. Thus, in this study

2600 people were enrolled through multistage random sampling techniques in which out of “six community development blocks”, one block was selected randomly; from this block one “Nyay Panchayat” was selected and from this “Nyay Panchayat” four villages were selected randomly, a total of 534 household were surveyed to get the required sample. Participants aged 5-59 years and permanent resident of the selected area were included in the study, while people who were severely ill and required hospitalization and those who didn't give the consent were excluded.

A pre-designed and pre-tested semi-structured questionnaire was used to assess the socio-demographic characteristics of the “study population”. “Standardized WHO questionnaire” on QOL for the disabled (WHO-BREF) was used to assess the QOL. This scale was used for derivation of scores of domains namely physical, psychological, social relationship and environment based on a defined set of parameters. The domain scores were mounted in a positive track (i.e. higher scores denote higher quality of life). Maximum marks for each question was 5. All scores of questions within each domain were added to calculate the domain-wise score. These raw scores of each domain were converted into percentage scores and then it was classified into three categories (dissatisfied-<50%, partially satisfied- 51-80% and satisfied->80%) to assess the satisfaction level for quality of life among disabled.

All “statistical analyses” were carried out by using Statistical package for social sciences (SPSS -20, IBM, Chicago, USA). Frequency with percentages was used for descriptive data. Association between categorical data was tested using Chi-square test. If the expected frequency in cells were less than 5 then Fischer Exact test was used.

Approval from the “University's Research” and “Ethical committee” was obtained prior to the initiation of the study.

Results

(Table-1) summarizes the socio-demographic variables of study subjects. Out of 2600 study participants, 1248 (48%) were females and 1352 (52%) were males. Maximum 1002 (38.5%) study participants belonged to 5-19 years age group. Majority 1500 (57.7%) were Muslims. Only 200 (7.9 %) study participants had educational qualification graduate & above and just 55 (2.1%) were illiterate. Most 1070 (41.2%) of the study participants were

students and majority 1190 (45.7%) were unmarried. Out of total 2600 study participants, 61(2.3%) people were disabled. Among those disabled individuals 1352 (52.5%) were males and 1248 (47.5%) females (Table-2).

(Table-3) shows that the majority 42 (68.9%) of disabled study participants were satisfied in physical domain. In Psychological and Environmental domain, most 40 & 34 (65.6% & 55.7%) study participants were partially satisfied, while maximum 37 (60.7%) were dissatisfied in social domain.

(Table-4) depicts the association between socio-demographic factors with different domains of quality of life. It is shown that religion was found to be strong determinant for physical, psychological and environmental domain of QOL (p-value= 0.001, 0.032 and 0.047 respectively). Socio-economic status was also found to be associated with psychological domain and it was statistically significant (p-value=0.000). Age, gender, education and occupation were statistically non-significant with all domains of QOL (p-value>0.005).

Discussion

In the current study, the prevalence of disability was found to be 2.3%, which is almost alike the prevalence reported by National Sample Survey Organization (2003) (2). The proportion of disabled males and females in our study was 52% and 48% respectively. This was in accordance with the findings of Ganesh K.S.et al.(2008) and Karkee et al. (2008) (3,4). Majority of the interviewed respondents in our study were Muslims (57.7%) followed by Hindus (40.0%), which are contrary to the results of Reddy B. et al. (5), the possible reason could be that the randomly selected villages in this study comprised predominantly of Muslim population. Around 97.9 percent of the study participants were literate, and 2.1 percent were illiterate which is close to the findings by Kumar R.et al.(6). Regarding occupation it was observed that majority (41.2%) of the study participants were students, almost similar findings were reported by Nag PK et al. in (2004), where 34.4% of the respondents were students (7).

It was observed that majority (68.9%) of disabled "study participants" were satisfied in the physical domain. The findings were in consensus with the study done by Abraham S. et al. (2013) on adolescents (8). The possible reason could be that, the family members and neighbours of the disabled

persons supported them and created comfortable environment for them to have better quality of life. In the present study, in the psychological domain majority (65.6%) disabled were partially satisfied. Our findings are slightly in accordance with the findings of Ahmmad.M.R (2014) (9), in which they showed that disabled people have adverse effects on their psychological and social health, but this was common among female disables ,while in our study proportion of male and female is almost equal. A study done by Kuvalekar et al. in Karnataka also showed low QOL scores in psychological domain (10). The reason may be that the studies were conducted in rural setting only in which mostly people have high self-esteem normally, which also creates more negative feelings among disabled when they feel that they are dependent on others for their simple daily routine tasks. Among the social domain most (60.7%) of the study participants were dissatisfied. This could be due to, that they were unable to socialize what little bit they used to do when they were normal. In environmental domain, majority (55.7%) disabled were partially dissatisfied. Results of the study done by Kanwal. H (11) also showed nearly similar results in social, environmental and psychological domains. We agree with their reason that disabled people are usually seemed as troublesome by the society.

Conclusion

The present study was a community based cross sectional study using multi-stage random sampling, was carried out over a period of one year. Assessing QOL as an important "determinant of the health status of disabled", the present study was designed and conducted to measure the QOL to determine the association between socio-demographic factors with the "quality of life" by using WHO-BREF questionnaire. It showed that religion was found to be strong determinant for physical, psychological and "environmental domain" of "quality of life". Socio- economic status was also found to be associated with psychological domain.

Recommendation

Since in our study religion was associated with different domains of quality of life, so people should not differentiate disabled people on basis of their religion and should be supported to have better quality of life. The differently abled people should be socialized by self-help groups, so that they can interact normally with society. Their family should

support them in every aspect of life. As QOL is a multidimensional concept, extensive studies are required to reveal factors that affect QOL among disabled persons and holistic approach is needed to address those factors

Limitation of the study

As the present study covered all age-groups with large sample size, it increased the validity. However, as the study was done in only rural area, the results obtained may differ in different settings and might get affected by unknown factors as disability and quality of life are inter-related.

Relevance of the study

The outcome visibly shows the need for more “intervention” among people with “disability” to improve their “quality of life” in physical, psychological, social and environmental domains. The “family, school and the community” need to go hand in hand to ensure this for the betterment of “disabled” people.

Authors Contribution

All the authors have made considerable contribution to the design of the “study, collection, analysis and interpretation of data as well as preparation of manuscript”

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Tables**TABLE 1 DISTRIBUTION OF SOCIODEMOGRAPHIC VARIABLES AMONG STUDY SUBJECTS**

| Socio-Demographic Variables | Number | Percentage |
|----------------------------------------------------------|--------|------------|
| Socio-Economic Status of Total Households (n-534) | | |
| Upper | 22 | 4.1 |
| Upper Middle | 114 | 21.3 |
| Middle | 297 | 55.6 |
| Lower Middle | 83 | 15.5 |
| Lower | 15 | 3.4 |
| Gender (n-2600) | | |
| Male | 1352 | 52 |
| Female | 1248 | 48 |
| Age (In years) (n-2600) | | |
| 5–19 | 1002 | 38.5 |
| 20- 39 | 966 | 37.1 |
| 40-59 | 632 | 24.3 |
| Religion(n-2600) | | |
| Hindu | 1042 | 40.1 |
| Muslim | 1500 | 57.7 |
| Sikh | 58 | 2.2 |
| Education(n-2600) | | |
| Illiterate | 55 | 2.1 |
| Primary | 766 | 30.4 |
| Junior high school | 779 | 30.9 |
| High School | 482 | 19.1 |
| Intermediate | 234 | 9.3 |
| Graduate and Above | 200 | 7.9 |
| Occupation(n-2600) | | |
| Skilled /Unskilled labours | 642 | 24.6 |
| Agriculture work | 120 | 4.6 |
| Shopkeeper/Businessman | 35 | 1.3 |
| Unemployed | 65 | 2.5 |
| Government/Private Service | 117 | 4.5 |
| Household work | 551 | 21.2 |
| Student | 1070 | 41.2 |
| Marital Status(n-2600) | | |
| Never married | 1190 | 45.7 |
| Currently married | 1336 | 51.3 |
| Widow/Separated/Divorced | 74 | 2.8 |

TABLE 2 GENDER-WISE DISTRIBUTION OF DISABLED SUBJECTS

| Disability | Male (1352) | Female (1248) | Total |
|----------------|-------------|---------------|-------|
| Present | 32 (52.5) | 29(47.5) | 61 |
| Absent | 1322(52.1) | 1217 (47.9) | 2539 |

TABLE 3 SATISFACTION LEVEL OF DISABLED PARTICIPANTS ACCORDING TO DOMAINS OF QOL

| Domains of Quality of Life | Satisfaction Level | | |
|-----------------------------|--------------------|---------------------|-----------|
| | Dissatisfied | Partially Satisfied | Satisfied |
| Physical Domain | 0(0.0) | 19(31.1) | 42(68.9) |
| Psychological Domain | 3(4.9) | 40(65.6) | 18(29.5) |
| Social Domain | 37(60.7) | 24(39.3) | 0(0.0) |
| Environmental Domain | 7(11.5) | 34(55.7) | 20(32.8) |

TABLE 4 ASSOCIATION BETWEEN SOCIO-DEMOGRAPHIC FACTORS WITH DIFFERENT DOMAINS OF QOL

| Variable | PHYSICAL DOMAIN | | | PSYCHOLOGICAL DOMAIN | | | SOCIAL DOMAIN | | | ENVIRONMENTAL DOMAIN | | |
|------------------------------------|-----------------|---------------------|--------------|----------------------|---------------------|--------------|---------------|---------------------|--------------|----------------------|---------------------|--------------|
| | Satisfied | Partially Satisfied | Dissatisfied | Satisfied | Partially Satisfied | Dissatisfied | Satisfied | Partially Satisfied | Dissatisfied | Satisfied | Partially Satisfied | Dissatisfied |
| Age (in years) (n-61) | | | | | | | | | | | | |
| 5-19 | 6(60.0) | 4(40.0) | 0(0) | 2(20.0) | 7(70.0) | 1(10.0) | 0(0.0) | 2(20.0) | 8(80.0) | 3(30.0) | 6(60.0) | 1(10.0) |
| 20-39 | 20(64.5) | 11(35.5) | 0(0) | 11(35.5) | 18(58.1) | 2(6.5) | 0(0.0) | 15(48.4) | 16(51.6) | 12(38.7) | 15(48.4) | 4(12.9) |
| 40-59 | 16(80.0) | 4(20.0) | 0(0) | 5(25.0) | 15(75.0) | 0(0.0) | 0(0.0) | 7(35.0) | 13(65.0) | 5(25.0) | 13(65.0) | 2(10.0) |
| p-value | 0.407 | | | 0.551 | | | 0.248 | | | 0.831 | | |
| Gender (n-61) | | | | | | | | | | | | |
| Male | 23(71.9) | 9(28.1) | 0(0) | 8(25.0) | 24(75.0) | 0(0.0) | 0(0.0) | 12(37.5) | 20(62.5) | 10(31.2) | 20(62.5) | 2(6.2) |
| Female | 19(65.5) | 10(34.5) | 0(0) | 10(34.5) | 16(55.2) | 3(10.3) | 0(0.0) | 12(41.4) | 17(58.6) | 10(34.5) | 14(48.3) | 5(17.2) |
| p-value | 0.592 | | | 0.096 | | | 0.798 | | | 0.332 | | |
| Religion (n-61) | | | | | | | | | | | | |
| Hindu | 9(42.9) | 12(57.1) | 0(0.0) | 4(19.0) | 14(66.7) | 3(14.3) | 0(0.0) | 5(23.8) | 16(76.2) | 4(19.0) | 12(57.1) | 5(23.8) |
| Muslim | 33(82.5) | 7(17.5) | 0(0.0) | 14(35.0) | 26(65.0) | 0(0.0) | 0(0.0) | 19(47.5) | 21(52.5) | 16(40.0) | 22(55.0) | 2(5.0) |
| Others | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) |
| p-value | 0.001 | | | 0.032 | | | 0.072 | | | 0.047 | | |
| Education(n-61) | | | | | | | | | | | | |
| Up to High School | 41(69.5) | 18(30.5) | 0(0.0) | 17(28.8) | 39(66.1) | 3(5.1) | 0(0.0) | 23(39.0) | 36(61.0) | 19(32.2) | 33(55.9) | 7(11.9) |
| Intermediate | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 1(100) | 0(0.0) |
| Graduate & Above | 1(100) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) |
| p-value | 0.263 | | | 0.570 | | | 0.334 | | | 0.582 | | |
| Occupation (n-49) | | | | | | | | | | | | |
| Skilled | 6(85.7) | 1(14.3) | 0(0.0) | 2(28.6) | 5(71.4) | 0(0.0) | 0(0.0) | 3(42.9) | 4(57.1) | 3(42.9) | 3(42.9) | 1(14.3) |
| Semi-skilled | 12(70.6) | 5(29.4) | 0(0.0) | 5(29.4) | 12(70.6) | 0(0.0) | 0(0.0) | 5(29.4) | 12(70.6) | 5(29.4) | 10(58.8) | 2(11.8) |
| Unskilled | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) | 0(0.0) |
| Unemployed | 25(100) | 9(36.0) | 0(0.0) | 7(28.0) | 16(64.0) | 2(8.0) | 0(0.0) | 12(48.0) | 13(52.0) | 7(28.0) | 15(60.0) | 3(12.0) |
| p-value | 0.540 | | | 0.733 | | | 0.482 | | | 0.948 | | |
| Socio-Economic Class (n-61) | | | | | | | | | | | | |
| Upper | 1(100) | 0(0.0) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 1(100) | 0(0.0) |
| Middle | 41(69.5) | 18(30.5) | 0(0.0) | 18(30.5) | 39(66.1) | 2(3.4) | 0(0.0) | 24(40.7) | 35(59.3) | 20(33.9) | 33(55.9) | 6(10.2) |
| Lower | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) | 1(100) | 0(0.0) | 0(0.0) | 1(100) |
| p-value | 0.263 | | | <0.001 | | | 0.511 | | | 0.071 | | |