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A study of quality of life and economic dependency in physically disabled population in a rural area

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ABSTRACT

Background: Human life is enriched by mechanical, recreational and innovative activities performed by an individual. Disability is a complex phenomenon, reflecting the interaction between features of a person's body and the society in which he or she lives. Quality of life is defined by a subjective evaluation of the life circumstances of an individual with respect to his/her values. The objective of the study was to study the prevalence of physical disability and their economic dependence and quality of life in Orathur rural population.

Methods: Data was collected by house to house survey of rural population, Orathur, Cuddalore district, Tamil Nadu through pre structured questionnaire and clinical examination .The tools used include interview schedule and sickness impact profile (SIP) scale with modification. Data was analyzed statistically.

Results: A total of 4508 population were surveyed in this study to find out the prevalence of disability and burden of disability. Totally 308 physically disabled persons were identified (6.8% prevalence rate). It was found that visual disability was most common disability. Economic dependency and impact on quality of life was found to be more in visual disability than other types of disability. Information on extent of impact of disabilities is required to formulate future policies aiming at improving quality of life of disabled people and making them economically independent.

Conclusions: Visual disability was the most prevalent disability in the present study and Cataract being the leading cause. Vocational rehabilitation measures specifically for rural disabled people should be initiated by government and non governmental agencies to improve the economic status.

Keywords: Disability, Prevalence, Degree of disability, Quality of life, Economic dependency

INTRODUCTION

Human life is enriched by mechanical, recreational and innovative activities performed by an individual. Disability disproportionately affects vulnerable populations and is more common among women, older people and children and adults who are poor. People with disabilities are among the most marginalized groups in the world, with poorer health outcomes, lower education achievements, less economic participation and higher rates of poverty than people without disabilities. They often do not receive needed health care.²

Disability is a complex phenomenon, reflecting the interaction between features of a person's body and the society in which he or she lives. About 15% of the world's population lives with some form of disability, of whom 2-4% experience significant difficulties in functioning. Between 110-190 million adults have very significant difficulties in functioning. The global disability prevalence is higher than previous WHO estimates, which dates from 1970 and suggested a figure of around 10%. This global estimate for disability is on the rise due to population ageing and the rapid spread of chronic diseases, as well as improvements in the

methodologies used to measure disability. According to 2011 census 2.6 crores of Indian populations are suffering from some form of disability with 69% from rural areas.³

Quality of life is defined by a subjective evaluation of the life circumstances of an individual with respect to his/her values. The results indicate the importance of physical, psychological, social and spiritual well-being, the satisfaction with life and the accomplishment of meaningful occupations

In general, quality of life is the perceived quality of an individual's daily life, that is, an assessment of their well-being or lack thereof. This includes all emotional, social, and physical aspects of the individual's life. In health care, health-related quality of life (HRQOL) is an assessment of how the individual's well-being may be affected over time by a disease, disability, or disorder. The current concept of health-related quality of life acknowledges that subjects put their actual situation in relation to their personal expectation.

People with disabilities must have the opportunity to lead lives that offer them a meaningful quality of life.

METHODS

Orathur primary health centre is a block PHC in Cuddalore district of Tamil Nadu. Orathur PHC comprises of 7 health subcentres with a population of 48000 (2011 census). A descriptive, cross sectional, community based study was done in orathur and parathur villages of Orathur PHC area to find out the prevalence, quality of life and economic dependency of physically disabled persons using pretested proforma and clinical examination.

A review of international studies revealed a prevalence range of disability from 4% to 10%. Studies in India indicated a prevalence range around 10%. The prevalence of physical disability in pilot study was 8%. This prevalence has been used in calculation of sample size.

$$n = (1-P)Z_{1-\alpha/I}^2 / \epsilon^2 p = 4418.$$

P= prevalence, Z= 95% confidence interval, E= relative precision= 10%. However 4508 population was covered for the study. Orathur health sub-center consists of Orathur and Parathur villages with total population 1363 (690 males and 673 females) and 3392 (1709 males and 1683 females) respectively has been included in this study.

House to house visits was done to identify the disabled persons in the Orathur subcentre using interview schedule, The study was conducted for a period of 9 months from August 2014 to April 2015. Interview schedule was prepared in English and translated in for the convenience of administration of questions during interview process.

SIP-68 is used to assess Health Related Quality of Life (HRQOL) of individuals living in the community. Original version has 68 questions. It is modified according to local circumstances which consist of 16 questions. The questions consisted on dichotomous response with yes/no with scoring 1 and 0 respectively. The modified version of SIP-68 is split up as follows 10 questions for locomotor disability, 4 for visual disability, 2 questions each for hearing and speech disability.

Economic dependency was graded based on their age, employment status, money from various social schemes, dependency status on family members.

Data collected was entered in Microsoft excel 2007 spreadsheet, compiled and analyzed using SYSTAT V12 software. The results were presented in the form of tables and percentages.

RESULTS

Out of 111 visually disabled persons, most affected activity of daily living (ADL)- crossing roads and least affected ADL- Moving in the room. Out of 101 visually disabled persons. Most affected ADL- walking short distance, participation in functions and least affected ADL- Moving into or out of bed, eating. Around 77.2% hearing disabled persons were having difficulty in conversation with close persons. 60% of speech disabled persons were having difficulty in communication even by gestures (Table 1).

86.4% of visual disabled persons were economically dependent. 87.1% of locomotor disabled persons were economically dependent. About 68.6% of hearing disabled persons were economically dependent and 62.8% of speech disabled persons were (Table 2).

52.3% of visual disabled persons were having severe impact on quality of life. 59.4% of loco motor disabled persons were having moderate to severe impact on quality of life (Table 3).

Table 1: Disability scoring.

| | Yes (%) | No (%) |
|--|------------|------------|
| Visual disability scoring | | |
| 1.Able to move in your room | 107 (96.4) | 4 (3.6) |
| 2. Able to go outside the house without assistance | 18 (16.2) | 93 (83.8) |
| 3. Able to cross road without assistance | 5 (4.5) | 106 (95.5) |
| 4. Able to use cell phones | 42 (37.8) | 69 (62.2) |

Continued.

| | Yes (%) | No (%) | | |
|--|-----------|-------------|--|--|
| Locomotor disability scoring | | | | |
| 1.Able to move in to or out of bed | 85 (84.2) | 16 (15.8) | | |
| 2. Able to stand up without someone's help or stick | 79 (78.2) | 22 (21.8) | | |
| 3. Able to take bath without assistance | 66 (65.3) | 35 (34.7) | | |
| 4. Able to dress up without assistance | 61 (60.4) | 40 ((39.6) | | |
| 5.Able to do gardening work around house | 67 (66.3) | 34 (33.7) | | |
| 6.Able to go for shopping | 57 (56.4) | 44 (43.6) | | |
| 7.Able to do kitchen work | 74 (73.2) | 27 (26.8) | | |
| 8. Able to walk for short distance | 49 (48.5) | 52 (51.5) | | |
| 9.Able to participate in functions/festivals | 39 (38.6) | 62 (61.4) | | |
| 10.Able to eat yourself | 88 (87.1) | 13 (12.9) | | |
| Hearing disability scoring | | | | |
| 1.Able to communicate only by gestures | 16 (22.8) | 54 (77.2) | | |
| 2.Having difficulty in speaking (stutter/stammering) | 43 (61.4) | 27 (38.6) | | |
| Speech disability scoring | | | | |
| 1.Able to do conversation when close to other person | 14 (40) | 21 (60) | | |
| 2.Able to understand speech with difficulty | 34 (97.1) | 1 (2.9) | | |

Table 2: Economic dependency of disabled persons.

| Disability type | Dependent (%) | Partially dependent (%) | Independent (%) |
|----------------------|---------------|-------------------------|-----------------|
| Visual disability | 73.8 | 12.6 | 11.5 |
| Locomotor disability | 51.5 | 35.6 | 12.9 |
| Hearing disability | 54.3 | 14.3 | 31.4 |
| Speech disability | 45.7 | 17.1 | 37.2 |

Table 3: Sickness impact profile-quality of life of disabled persons.

| Type of disability | Mild/no impact on QOL (%) | Moderate impact on QOL (%) | Severe impact on QOL (%) |
|----------------------|---------------------------|----------------------------|--------------------------|
| Visual disability | 8.1 | 39.6 | 52.3 |
| Locomotor disability | 40.5 | 47.5 | 11.9 |

DISCUSSION

This descriptive study was conducted in Orathur health subcentre area covering population of 4508, to assess the prevalence of physical disability and degree of disability.

The prevalence of physical disability in current study was 6.8% and similar results of 6% prevalence was seen in study by Kumar et al in rural Karnataka. Global prevalence of disability ranges from 4% to 10% (2001) with 4% in developing countries and 7% in industrialized countries. In Southeast Asia, the prevalence of disability ranges from 1.5% to 21.3% of the total population depending on definition and severity of disability. The number of disabled persons in the country was estimated to be 18.49 million during July to December, 2002. They formed about 1.8 per cent of the total population. About 10.63 per cent of the disabled persons suffered from more than one type of disabilities.

In the present study 80.5% of physically disabled persons are economically dependent, (fully dependent-59.1%, partially dependent-21.4%) whereas 74.5% of the

disabled were economically dependent in a study conducted in rural area of Haryana by Gupta et al.⁶

Locomotor disabilities are the most prevalent type of disabilities affecting all ages in India. Visual and hearing disabilities are highest in the aged. The most affected Activity of daily living (ADL) were walking for short distance and participating in functions and least affected ADL was moving in to or out of bed and eating among Loco motor disabled persons. They were experiencing more problems outside the home. Only 12% they were having severe impact on quality of life. Because of disability they were unable to involve themselves in functions, meetings and festivals. They feel isolated, lonely and having less social interactions.

Among visually disabled persons the most affected Activity of daily living (ADL) was crossing the roads and least affected ADL was moving inside the room. 52% of them were having severe impact on quality of life. Cataract was the most common cause for visual disability in the present study. Most of visually disabled persons were living with cataract without being corrected. The reasons as they stated that they were not aware of eye

screening camps, not having enough family support to take them to hospitals. National Program for Control of Blindness was launched in the year 1976 as a 100% centrally sponsored scheme with the goal to reduce the prevalence of blindness from 1.4% to 0.3%. As per Survey in 2001-2002, prevalence of blindness is estimated to be 1.1%. Various activities/initiatives undertaken during the five year plans under NPCB are targeted towards achieving the goal of reducing the prevalence of blindness to 0.3% by the year 2020.8

CONCLUSION

Disabled people are less likely to be educated, employed or rehabilitated. Rehabilitation helps to maximize functioning and support independence. Information on extent of impact of disabilities is required to formulate future policies aiming at improving quality of life of disabled people and making them economically independent. Functional disabilities if recognized at an earlier stage can be improved greatly. In the early stages, intervention has large medical component, however in the later stages; disability and handicap have huge social and environmental components in terms of dependence and social costs.9

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REFERENCES

- Padhyegurjar SB, Padhyegurjar MS. Cross sectional study of Locomotor disabilities in urban slum area of Mumbai. National J Community Med. 2011;2(3):492-3.
- Available at: www.who.int/topics/disabilties/en. Accessed on 3 July 2018.
- Walia GK. Disabilty South Asia Network for Chronic Disease.
- Ganesh KS, Das A, Soans SJ. Quality of Rehabilitation services to disabled in Rural Community of Karnataka. Indian J Community Med. 2008;33(3):198-200.
- 5. NSS 58th round. July- December 2002. National Sample Survey Organisation. Ministry of Statistics and Program implementation, Government of India.
- Gupta P, Mani K, Rai SK, Nongkynrih B, Gupta SK. Functional disability Among Elderly Persons in Rural Area of Haryana 2014. Indian Journal of Public Health 2014;58(1):11-6.
- Manual on Disability statistics. Ministry of Statistics and Program implementation, Government of India. Vision 2020: Global Initiative for elimination of avoidable blindness: 2006-2011.
- Singh A. Burden of Disability in a Chandigarh village. Indian J Community Med. 2008;33(2):113-

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