



EPIDEMIOLOGY OF DISABILITY AMONG HANDICAP CERTIFICATE SEEKERS OF A TERTIARY CARE HOSPITAL

Dr Neelam D Sukhsohale*

Associate Professor, Department of Community Medicine, Grant Government Medical College, Mumbai, Maharashtra. *Corresponding Author

Dr Meena Kakeri

Professor and Head, Department of Community Medicine, Grant Government Medical College, Mumbai, Maharashtra.

ABSTRACT

The present study explores the epidemiology of disability among handicap certificate seekers of a tertiary care hospital. This Hospital based record study was carried out in 500 patients for 6 months from 1st September 2013 to February 2014. All handicap certificate seekers were subjected to sociodemographic profile and clinical details of disabilities. Our study revealed that disability is a major problem in young people with prevalence of 45.2%. It was found to be predominant among males (72.2%) and patients with low literacy level. (55.4%). Hearing & visual disabled people had disability in the range of 90-100% as compared to physical & mental disability. We concluded that socio-demographic characteristics like age, gender and educational status were important determinants of disabilities. Hearing & visual disabled people had disability in the range of 90-100% as compared to physical & mental disability.

KEYWORDS : Disability, epidemiology, pattern, handicap certificate

INTRODUCTION

'Disability is not just a health problem. It is a complex phenomenon reflecting the interaction between features of a person's body and features of the society in which he or she lives. Overcoming the difficulties faced by people with disabilities requires interventions to remove environmental and social barriers. Disability is the consequence of an impairment that may be physical, cognitive, mental, sensory, emotional, developmental, or some combination of these. A disability may be present from birth, or occur during a person's lifetime.¹⁻²

Country's disabled population has been increasing at an alarming rate. It is increased by 22.4% between 2001 & 2011. As per Census 2011, total 2.24% rural and 2.17% urban population is disabled. Shockingly, proportion of disabled is predominant among rural population. As per Section 2(t) of the Act, 1995, persons with disabilities means a person suffering from not less than 40% of any disability as certified by medical authorities.³

Common types of disabilities present in India are (i) Blindness; (ii) Low vision; (iii) Leprosy-cured; (iv) Hearing impairment; (v) Locomotor disability; (vi) Mental retardation; (vii) Mental illness. These disabilities show epidemiological and demographic variation and can be preventable by applying simple and effective measures. Hence it is imperative to implement preventive and control measures at individual, family and community level so as to prevent and control disabilities at an early stage.⁴ With this background, the present study was conducted to study the epidemiology of disability among handicap certificate seekers of a tertiary care hospital

MATERIAL AND METHODS:

Data collection procedures

Study Design: Hospital based record study

Study area: Head Clerk Department of Tertiary care hospital

Study Material: Handicapped certificates

Duration of Study: Total duration of study was 6 months

Study period: September 2013 to February 2014.

Inclusion criteria:

All adult patients aged 18 years and above seeking handicapped certificate from head clerk department of tertiary care hospital.

Exclusion criteria:

Individuals below 18 years and those not seeking handicapped certificate from head clerk department of tertiary care hospital.

Study tool: Handicapped / Disability certificates obtained from Head Clerk Department of a Tertiary care hospital

METHOD OF DATA COLLECTION:

Handicapped certificates of patients visiting head clerk department

and fulfilling the inclusion criteria were reviewed in detail with respect to socio demographic characteristics such as age, gender, education, religion, marital status, socio-economic status etc.

Moreover thorough data regarding the types and pattern of disabilities (Physical, mental, auditory, visual, locomotor and others) from disability certificates was noted in the predesigned questionnaire.

Sample size: Around 500 Handicapped/Disability certificates obtained from Head Clerk Department of a Tertiary care hospital were reviewed.

Statistical analysis: Data thus collected was compiled & analysed. Percentages, mean, standard deviation and Chi square test were applied using statistical software Open Epi info, version 2.3 year 2009. P values less than 0.05 were considered as statistically significant.

RESULTS:

Hospital-wise disability analysis report from 01/09/2013 to 05/02/2014) showed that out of total 823 applicants, 500 disability certificates were issued. These certificates were reviewed in detail in the present study

Table I: Epidemiological characteristics of study subjects

Epidemiological characteristic	Number	Percentage
Age group (years) 0-10	109	21.8
11-20	117	23.4
21-30	76	15.2
31-40	89	17.8
41-50	59	11.8
51-60	34	6.8
61-70	16	3.2
Gender : Male	361	72.2
Female	139	27.8
Marital status: Married	170	34
Single	330	66
Mode of disability: Permanent	382	81.8
Temporary	91	18.2
Religion: Hindu	393	78.6
Bhuddist	78	15.6
Muslim	26	5.2
Others	3	0.6
Education: Illiterate	143	20.4
Primary School	134	35
Upto SSC	156	31.2
HSC & above	67	13.4

Table I shows the Epidemiological characteristics of study subjects. Majority of disabled people (45.2%) were in the age group of 0-20 years with mean age of 26.48±16.7 years with predominance among

males (72.2%) as compared to females (27.8%). Most of them were unmarried (66%). Permanent disability was found in 81.8% and temporary disability in 18.2% disabled patients. Considering Religion, 78.6% were Hindus, 15.6% were Bhuddist, 5.2% Muslims & Others (Christian, Sikh) were found to be 0.6%. As far as literacy status of study subjects is concerned, 35% study subjects were educated up to primary school and 20.4% were illiterate.

Table II: Distribution of study subjects according to percentage and type of disability

% of disability	Physical	Mental	Visual	Hearing
40 - 50	30 (14.6)	13 (9.4)	29 (33.3)	05 (7.2)
50 - 60	49 (23.9)	45 (32.6)	01 (1.1)	03 (4.3)
60 - 70	42 (20.9)	25 (18.1)	0	07 (10.0)
70 - 80	33 (16.1)	23 (16.7)	11 (12.7)	0
80 - 90	41 (20)	15 (10.9)	0	1 (1.4)
90 - 100	10 (4.9)	17 (12.3)	46 (52.9)	54 (77.1)

Figures in parentheses indicate percentage Table II shows the percentage and type of disability study subjects. It was observed that majority ie 49 (23.9%) of study subjects with physical disability and 45 (32.6%) study subjects with mental disability had 50-60 percentage disability. Whereas subjects with 90-100% disability belonged to visual (52.9%) and hearing (77.1%) disability categories.

DISCUSSION:

We performed a Hospital based retrospective study to Epidemiology of disability among handicap certificate seekers of a tertiary care hospital. Our study revealed that the prevalence of disability was quite high in younger age group (45.2%) and among males (72.2%) as compared to females (27.8%). Moreover low literacy level (55.4%) was also found to be a major epidemiological factor. Hearing and visual disabled people had disability in the range of 90-100% as compared to physical and mental disability. The above findings are consistent with the studies performed by other authors. Study performed by Raggi A et al⁵ found that being married/cohabitating and higher education levels were associated with reduced odds of severe disability; living with other individuals, such as in an institution, was associated with increased odds. Moreover, age and education level were associated with severe disability, and that no association with number of diseases was found.

However contradictory results were reported by I.S. Abdulraheen et al.⁶ Their study reported increased risk of disability was independently associated with female gender PR 3.6 (95% CI 1.5–7.4), advanced age ≥ 75 years; PR 22.2 (95% CI 14.5, 36.8), arthritis PR 3.7 (95% CI 2.6–4.6), stroke PR 4.8 (95% CI 3.7–7.9) and diabetes PR 6.1 (95% CI 4.3–7.1).

Ganesh KS etal⁷ found the prevalence of disability to be 6.3%. The most common type of disability among the disabled was mental disability (22/60) followed by loco motor (17/60), hearing (13/60), speech (12/60) and visual (10/60) disability. 80% (48) of the disabled had single disability and the rest 20% had multiple disabilities. The prevalence of disability among the elderly group (>60 years) was very high (21.5%). As the age advances, the prevalence increased significantly ($\chi^2=74.26$, $p=0.001$). 40% (24) of the disabled were males and 60% (36) were females. Nearly one quarter of illiterates (22.6%) were disabled and those with education level of above 10th standard had very low prevalence. As literacy level increased, the prevalence declined significantly ($\chi^2=52.4$, $p=<0.001$).

Further community based, comprehensive research is required to throw more light on epidemiology and patterns of disability. Since there is an ample scope for community based rehabilitation of the disabled also.⁶⁻⁸

CONCLUSIONS:

We conclude that disability is a major problem in young people with prevalence of 45.2 and having predominance among males (72.2%). Hearing and visual disabled people had disability in the range of 90-100% as compared to physical and mental disability. Hence it is imperative to implement preventive and control measures at individual, family and community level so as to prevent and control disabilities at an early stage.

REFERENCES:

1. WHO. World report on disability. Geneva: WHO, 2011
2. Social statistics division Ministry of statistics and programme implementation,

3. Government of India <http://www.mospi.gov>.
4. PWD ACT, 1995. The persons with disabilities (equal opportunities, protection of rights and full participation) act, 1995 published in part ii, section 1 of the extraordinary gazette of India ministry of law, justice and company affairs (Legislative Department) New Delhi, the 1st January, 1996.
5. Patel S. An Empirical Study of Causes of Disability in India. The Internet Journal of Epidemiology 2008;6(2):1-8.
6. Raggi A; Covelli V, Pagani M, Meucci, P, Martinuzzi A, Buffoni M et al. Sociodemographic features and diagnoses as predictors of severe disability in a sample of adults applying for disability certification. International Journal of Rehabilitation Research 2014;37(2):180-186.
7. Abdulraheem IS, Oladipo AR, Amodu MO. Prevalence and Correlates of Physical Disability and Functional Limitations among Elderly Rural Population in Nigeria. 2011;1-13.
8. Ganesh KS, Das A, Shashi JS. Epidemiology of Disability in a Rural Community of Karnataka. Indian Journal of Public Health 2008;52(3):125-129.
9. Balhara YPS, Verma R, Deshpande SN. A Study of Profile of Disability Certificate Seeking Patients with Schizophrenia Over a 5 Year Period. Indian J Psychol Med. 2013;Apr-Jun;35(2):127-134.