Research Article

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A study of profile of patients attending district disability rehabilitation centre at Ballari city

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ABSTRACT

Background: Over a billion people, about 15% of the world's population have some form of disability. Rates of disability are increasing due to population ageing and increase in chronic health conditions among other causes. There is paucity of data on the patterns of disability in Ballari district.

Methods: A descriptive hospital based study was conducted at disability rehabilitation centre (DRC), Vijayanagara Institute of Medical Sciences, Ballari, Karnataka. The data related to patients with disability on socio-demographic, patterns of disability and etiological variables was collected from patients records maintained at DRC, Ballari, where in data of 388 patients was collected from the previous two years i.e. from 2012 to 2014.

Results: More than two thirds of the patients were males (68%) and remaining 32% were females. 45% of them were in the age group of 15-30 years. Commonest disability was locomotor (77.3%) followed by hearing (11.6%), mental (9.3%), visual (5.9%) and speech (3.8%). Lower limb (72.7%) was the commonest organ involved in the occurrence of disability. Majority of them had a disability percentage of 40-75% (76.5%) followed by disability percentage of more than 75% (21.9%) and disability percentage of less than 40% was seen in only 1.5% of patients.

Conclusions: Children and young adults were the common groups with disability. Males were more affected than females where the commonest type of disability was locomotor.

Keywords: Disability, Patterns, District disability rehabilitation centre

INTRODUCTION

Disability is an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors). Disability is one of the major public health problems of the developing countries, though the data collected do not reflect the full extent of disability prevalence. ¹⁻³ In view of the above context, the present study was conducted to study the patterns of disability among the patients visiting our disability rehabilitation centre in Ballari district.

The objectives of the study were to study the sociodemographic profile of the patients with disability and to study the patterns of disability among the patients.

METHODS

A descriptive hospital based study was conducted at Disability Rehabilitation Centre (DRC), Vijayanagara Institute of Medical Sciences, Ballari, Karnataka. The data related to patients with disability was collected from patients records maintained at DRC, Ballari where in data of 388 patients was collected from the previous two years i.e. from 2012 to 2014. Patient information regarding the socio-demographic profile, type of disability, organ

involvement and the percentage of disability was noted. The type of disability was classified as locomotor, mental, visual, hearing and speech disability. The aetiology was classified as injuries (falls, road traffic accidents, and assaults), chronic conditions (Diabetes, Stroke, Cerebral Palsy etc.) and infectious conditions (Polio, CSOM, Measles, Encephalitis, Sepsis, gangrene etc.). The collected data was entered into excel sheet and analysed using percentages.

RESULTS

More than two thirds of the patients were males (68%) and remaining 32% were females. More than three fourth of the patients with disability were in the age group of less than 15 years (30.2%) and 15-30 years (45.1%) and about 6% were in the geriatric age group. Majority of them were Hindus (89.2%) followed by Muslims (10.8%). A little over half of them were below poverty line card holders and the remaining 44.8% were above poverty line card holders (Table 1).

Table 1: Socio-demographic profile of the patients with disability (N=388).

Variable	No. of patients	Percentage
Sex		
Male	264	68
Female	124	32
Age group		
<15 years	117	30.2
15-30 years	175	45.1
31-45 years	37	9.5
46-60 years	36	9.3
61-75 years	17	4.4
>75 years	6	1.5
Religion		
Hindu	346	89.2
Muslim	42	10.8
SES		
APL	174	44.8
BPL	214	55.2

Commonest disability was locomotor (77.3%) followed by hearing (11.6%), Mental (9.3%), Visual (5.9%) and speech (3.8%). Lower limb (72.7%) was the commonest organ involved in the occurrence of disability (Table 2).

One third of the disabilities were due to chronic conditions like diabetes, cerebral palsy, stroke etc., followed by infections (28%) and injuries (27.3%). Congenital conditions contributed to about 11% of disability etiology (Table 3).

Disability grading was done in all the patients attending the Disability Rehabilitation Centre by the respective specialist as a part of social entitlement scheme from the Government to avail the disability pension. Majority of them had a disability percentage of 40-75% (76.5%) followed by disability percentage of more than 75% (21.9%) and disability percentage of less than 40% was seen in only 1.5% of patients (Table 4).

Table 2: Clinical profile of the patients with disability (N=388).

Variable	No. of patients	Percentage
Type of disability		
Locomotor	269	77.3
Hearing	45	11.6
Mental	36	9.3
Visual	23	5.9
Speech	15	3.8
Organ involved		
CNS	28	7.2
Hearing	22	5.7
Eyes	7	1.8
lower limb	282	72.7
Upper limb	7	1.8
Upper and lower limb	28	7.2
Multiple disability	14	3.6

Table 3: Etiological profile of the patients (N=388).

Variable	No. of patients	Percentage
Injuries	106	27.3
Chronic conditions	129	33.2
Infections	109	28.1
Congenital	44	11.3
Total	388	100.0

Table 4: Distribution of the patients based on disability percentage (N=388).

Disability percentage	No. of patients	Percentage
< 40%	6	1.5
40 - 75%	297	76.5
> 75%	85	21.9
Total	388	100

DISCUSSION

Any restriction or lack of ability to perform an activity in a manner or within the range considered normal for the human beings, resulting from impairment is termed as disability. Impairment concerns the physical aspects of health; disability is the loss of functional capacity resulting from an impairment organ; handicap is a measure of the social and cultural consequences of an impairment or disability. Globally, around 785-795 million persons aged 15 years and older are living with disability based on 2010 population estimates. Of these, the World Health Survey estimates that 110 million people (2.2%) have very significant difficulties in

functioning while the Global Burden of Disease Survey estimates 3.8% have severe disability. Including children, about 15% of the world's population was estimated to be living with disability.⁵

Disability exhibits iceberg phenomena where there is difficulty in identifying the mild and moderate degrees of physical and mental disability among the community. The WHO estimates that 10% of the world's population has some form of disability. However in India the prevalence of disability is low at 2%. In rural Karnataka, a community-based study found the prevalence of all types of disability as 6.3% out of which mental disability was found to be the most common type of disability (36.7%).

In India, overall prevalence of any type of disability was 1.8% and 1.4% of population in rural and urban areas respectively. Disability among the geriatric age group is more in urban areas (6.6%) compared to rural areas (5.5%). However the prevalence of minimal to severe disability among elderly was 87.5% in Chandigarh⁸ and a study reported that visual disability was the commonest among the elderly.9 The prevalence of disability among children was 7% (below 14 years of age) and 7.6% (below 6 years of age). ^{10,11} In current study more than three fourth of the patients with disability were in the age group of less than 15 years (30.2%) and 15-30 years (45.1%) and about 6% were in the geriatric age group indicating most of the disabilities are occurring in the productive age groups which in turn impacts the overall socio-economic development. More than two thirds of the patients were males (68%) and remaining 32% were a female which indicates that male patients were availing more services at the centre compared to females. Some studies have shown proportionately more disability among males, while some other studies more among females.2,12

Currently India is witnessing an epidemiological transition which is largely driven by population ageing where there is steep rise in the burden of non-communicable diseases which may result in doubling of deaths due to non-communicable diseases from about 4.5 million in 1998 to about 8 million a year in 2020¹³. In the current study the commonest cause of disability among the patients attending DDRC were chronic conditions (33.2%) like diabetes, cerebral palsy, and stroke etc., followed by infections (28%) like Measles, Polio, chronic suppurative otitis media and injuries (27.3%). Congenital conditions contributed to about 11% of disability etiology.

According to 2011 census data, in India out of total disabled population of 26,810,557, the common type of disabilities are movement (20.3%), Seeing (18.7%), hearing (18.9%), speech (7.5%), mental retardation (5.6%), mental illness (2.6%) and multiple disabilities (7.8%)¹⁴. Similar pattern of type of disability was seen in our study however the proportion of locomotor disability

was more than 70% which indicates that patients with this disability were availing more services at the DDRCs.

Globally about one quarter of the total years Lived with Disability are because of diseases and injuries occurring among young children, but significantly more (36%) arise from conditions incurred in the productive age group of 15-44 years. Owing to the combination of population size and high disease and injury rates, India and China accounts for nearly 40% of the total years lived with a disability. ¹⁵

Rehabilitation is a process where at one end we try to limit the disability and at other end we try to utilize the residual abilities of the patients to rehabilitate them vocationally, socially, physically and mentally. Minimizing the progression to severe disability is a vital component in rehabilitation of disabled. It has shown that very few disabled people gets benefit from rehabilitation services in India. ^{2,16}

Setting up of district disability rehabilitation centers is one of the many measures initiated by Ministry of Social Justice and Empowerment and Health and Family Welfare in India with the objective of providing comprehensive services to the persons with disabilities at the grass root level. The services include awareness generation, survey, identification and early intervention, counselling, assessment of need for assistive devices, provision/fitment of assistive devices, and their follow up/repair, therapeutic services like Physiotherapy, Occupational Therapy and Speech Therapy, referral and arrangement for surgical correction through Government and Charitable Institutions, facilitation of issue of Disability Certificates and bus passes, sanction of bank loans, and promotion of barrier-free environment.

CONCLUSION

Children and young adults were the common groups with disability. Males were more affected than females where the commonest type of disability was locomotor. Chronic conditions, injuries and infections were the common causes of disability.

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