

ORIGINAL ARTICLE

FACTORS AFFECTING TREATMENT SEEKING BEHAVIOUR OF INDIVIDUALS WITH LOCOMOTOR DISABILITIES

Padhyegurjar Mansi S¹, Padhyegurjar Shekhar B²

¹Associate Professor, ²Professor, Department of Community Medicine, Karpaga Vinayaga Institute of Medical Sciences (KIMS), Tamilnadu.

Correspondence:

Dr Manasi Shekhar Padhyegurjar

C/o Dr B. K. Padhyegurjar,

9, Narmada Niwas, Topiwala Wadi, Station Road,

Goregaon (West), Mumbai 400 062.

E-mail address: manasipg@gmail.com, Phone numbers: 09840873796, 08122695816

ABSTRACT

Background: Among the different types of disabilities, the prevalence of locomotor disability is highest in the country. Quality of life and disability limitation is affected by the availability and utility of rehabilitative services. Thus knowledge of the treatment seeking behaviour will help in implementing successful intervention programmes.

Materials and Methods: A community based cross-sectional observation study was conducted in an urban slum of Mumbai. Total sample of 3665 individuals were screened. 205 were identified with loco motor disabilities who were subjected to a structured questionnaire. The study was conducted over a period of 3 months. The data was analysed using SPSS software (Version 17). 95 % confidence limits for prevalence was calculated to estimate the prevalence in the general population and Chi-square test was applied to identify the association between two variables.

Results: The prevalence of loco motor disabilities is found to be 5.59 %. Females were more affected than the males. 75% of the sample was unemployed and 49.3 % was illiterate. Utility of rehabilitative services was found to be poor (35.6%). 50.7 % of these were treated by General practitioners. Very few approached speciality rehabilitative services. Low literacy levels and poor awareness of rehabilitation facilities were the major factors affecting treatment seeking pattern of individuals with locomotor disability ($p < 0.001$)

Conclusion: Improving literacy rates, developing community based rehabilitation services and training medical under-graduates, creating awareness regarding the available facilities, will lead to greater utilization of rehabilitative services and thus early diagnosis and disability limitation.

Key Words: Locomotor Disability, treatment seeking behaviour

INTRODUCTION

Locomotor disability is the most prevalent type of disability affecting the population of all ages in India.¹ Locomotor disability is not life threatening but greatly affects the quality of life led by the disabled people. Timely interventions go a long way in disability limitation. The treatment seeking behaviour of disabled persons reflects a wider differential according to different background characteristics.¹ Thus this study was conducted with the aim of identifying the factors affecting treatment seeking behaviour of individuals with locomotor disability to help to formulate and design intervention programmes.

MATERIALS AND METHODS

The study was carried out in an urban slum which is the field practice area of a teaching hospital in Mumbai. The study is cross sectional and observation based. A

pilot study was conducted which showed a prevalence of 10% of loco motor disability among randomly screened population. Based on this minimum sample of 3600 was estimated. A household was taken as a single unit by stratified systematic random sampling in two demarcated areas of the slum. All members of the household were included in the study. A sample of 3665 individuals was taken.

Participants were screened for detection of loco motor disabilities by trained health professional. Criteria used in 58th Round National Sample Survey Organisation (NSSO) was used to identify individuals with locomotor disability. Persons having locomotor disability included in the study were those with (a) loss or absence or inactivity of whole or part of hand or leg or both due to amputation, paralysis, deformity or dysfunction of joints which affected his/her "normal ability to move self or objects" and (b) those with physical deformities in the body (other than limbs),

such as, hunch back, deformed spine, etc. Dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs was also treated as disabled.² A structured questionnaire was administered to individuals detected with locomotor disability in the local language. The study was conducted over a period of 3 months. The data was analysed using SPSS software (Version 17). 95 % confidence limits for prevalence was calculated to estimate the prevalence in the general population and Chi-square test was applied to identify the association between two variables.

RESULTS

Total sample of 3665 individuals was screened for locomotor disabilities. Among 3665 individuals 205 were identified with loco motor disabilities. Thus, the prevalence of loco motor disabilities is 5.59 % (95 % C.L. 4.85 % to 6.33 %). The study was further carried out on these 205 disabled individuals. Mean age of the affected sample was 38.89 years with standard deviation 15.1 years. 28.9 % are males and 71.1 % are females. 69.3 % were married. Out of the total sample, 62.7 % of disabled people had families with per capita income of less than 500 rupees per month and 75 % were unemployed. 101 affected individuals (49.3%) were illiterate and only 3.9% were educated beyond tenth class.

Table 1: Knowledge of rehabilitative services and treatment seeking pattern of individuals with Locomotor disability

Variables	Number(%)
Knowledge of rehabilitative services	
Yes	42(20.5)
No	163(79.5)
Total	205(100)
Treatment Taken	
Yes	73(35.6)
No	132(64.4)
Total	205(100)
Reason for not taking treatment	
Lack of knowledge of rehabilitative services	115(87.1)
Lack of time	3(2.3)
Cannot afford	3(2.3)
Not needed	11(8.3)
Total	132(100)
Treatment Personnel	
Orthopaedic Surgeon	7(9.6)
Private General Practitioner	37(50.7)
Occupational / Physiotherapist	3(4.1)
Urban Health Centre	22(30.1)
Traditional mode of Treatment (Bone Setter Homeopathy etc.)	4(5.5)
Total	73(100)

Table 2: Factors affecting treatment seeking pattern of individuals with Locomotor disability

Education Status and knowledge of rehabilitation				
Education Status	Knowledge		Total	P value
	Yes (%)	No (%)		
Illiterate	9 (8.9)	92(91.1)	101(100)	< 0.001
Primary	3(12.5)	21(87.5)	24(100)	
Secondary and above	30(37.5)	50(62.5)	80(100)	
Total	42(20.5)	163(79.5)	205(100)	
Knowledge of rehabilitation and Treatment taken				
Knowledge of rehabilitation	Treatment taken		Total	P value
	Yes (%)	No (%)		
Yes	26 (61.9)	16 (38.1)	42(100)	< 0.001
No	47(28.8)	116 (71.2)	163(100)	
Total	73 (35.6)	132 (64.4)	205(100)	

As observed in Table 1, majority of the individuals 163(79.5%) were unaware of any rehabilitative services. 132 (64.4 %) had not taken any treatment for their locomotor disability. Out of these 115(87.1%) stated the lack of knowledge of rehabilitative services as the reason for not taking treatment. Out of the 73 individuals who had taken treatment, 50.7% had approached the General Practitioner in their nearby area and 30% had visited the Urban Health Centre.

Table 2 indicates that presence of knowledge of rehabilitation is associated with improved education level (p<0.001). Affected individuals opt for treatment of their disabling condition if they are aware about existence of various treatment and rehabilitation

services available for their disabling conditions (p<0.001).

DISCUSSION

The prevalence of loco motor disabilities in the current study is 5.59 %. Census of India 2001, estimated 28 % of total disabled population with movement disabled where as NSS (National Sample Survey, 58th round, 2002) estimates them at 51%.^{2,3,4} 71.2 % of individuals with locomotor disability were females. Similar findings have been observed in Census 2001, where Tamil Nadu was observed to have a higher number of disabled

females than males.⁴ However in an empirical study conducted by Patel observed that males were more susceptible for developing disability than females.⁵ Out of the total sample, 49.3 % were illiterate and 69.3 % were married. Hidayat SZ observed that in India, almost three quarters of those with severe disabilities are illiterate, and even for those with mild disabilities, the illiteracy rate is around half.⁶ Similar findings were observed in some other research studies.^{5,7} The present study shows very high rate of unemployment (75.1%) as well as most of the families having per capita income less than Rs 500 per month (62.5%). Based on National Sample Survey data, Mitra and Sambamoorthi showed that the employment rate of persons with disabilities is only 60% that of the all India working age population.⁸

Out of 205 affected individuals, only 73(35.6%) have taken treatment for their locomotor disability. Similarly, Disler PB et al. observed that 80 % of the study population had no contact with health services in black residential area of the Cape Peninsula. ⁹ However Chopra A et al. observed in the COPARD study conducted in rural India, that only 21 % of the patients had never visited the doctor.¹⁰ Osman and Rampal observed that 42 (85.7%) of the 49 cases had received treatment in a Malay Community in Tanjung Karang, Kuala Selangor.¹¹

Among the 73 individuals in the current study who availed some type of treatment, only 9.6% had approached an orthopaedic specialist, 4 % had approached a therapist. Similarly, Laskar A et al. observed that rehabilitative institutions such as Institute for Physically Handicapped (IPH), Delhi, providing specialized care such as occupational therapy or physiotherapy, aids and appliances and psychological counselling services were rarely consulted in the initial few consultations and about 40% patients approached private hospitals or clinics.¹² The current study shows that majority of the individuals approached General Practitioner of Allopathic field (50.7%) and the Urban Health Centre (30.1%) of a Municipal teaching College. Only 4 (5.5 %) of the sample availed the traditional mode of treatment. Laskar A et al. observed that 68 % approached General Practitioner for treatment and 39.4 % availed the alternate system of medicine.¹² Similarly Joshi stated that the most popular type (system) of medicine preferred by those who were seeking treatment was Allopathic, which was adopted by nearly 92.2% people. The rest, 7.7% of the people, rely on either Ayurvedic or Homeopathic medicine ¹³ In the study conducted by All India Institute of Physical Medicine and Rehabilitation, it was observed that, out of 100 patients, 13 took local/herbal treatment and 30

approached a physician from alternate system or Allopathy.⁷

In the present study 132 individuals identified with locomotor disabilities had not availed any treatment. Out of these, 115(87.1%) did not avail any treatment because of lack knowledge of rehabilitative services. Knowledge of rehabilitative services is observed to be associated with the educational status of the individual (Table 2). Literate individuals had significantly better knowledge of the available rehabilitative services. Also as observed in Table 2, individuals who are aware of the services avail it significantly more than those who are not aware of them. In literature search it was observed that, various studies have observed different reasons for non utility of rehabilitative services. Laskar et al. observed that the most common reasons cited for not using government speciality rehabilitative services were long hours in queue (57%), ill-treatment by staff especially those relying on aids and appliances (45%), complicated paper work (36%) and overall poor quality of care (28%) in government set-up.¹² Agrawal G et al. observed better socio-economic status is closely associated with greater utilization of health care services among older persons.¹⁴ Patel SK states that treatment seeking behaviour of disabled persons depends not only on socio-economic factors but also on cultural factors, area of residence, literacy status, sex etc.¹ Hidayat SZ observed that the physical access to health service is a major hurdle for people with disabilities to reach and utilize these services.⁶

CONCLUSION

Low literacy rates have always been a cause of concern in India. Low literacy rates among disabled individuals have been specially found to be associated with low awareness and poor utilization of rehabilitative services in the current study. The poor treatment seeking in an urban set up such as Mumbai is a cause of concern. More studies need to be conducted related to this aspect. Also similar studies need to be conducted in rural areas to understand the complete scenario. In a situation where speciality rehabilitative services are unable to reach the beneficiaries, strategies like Community Based Rehabilitation (CBR) ¹⁵ should be implemented with priority. As majority of the disabled individuals are at present being treated by General Practitioners (who are usually graduate doctors, including alternate medicine), physicians should be appropriately trained to detect disability and provide rehabilitation during their undergraduate training. Lastly developing sustainable services and creating awareness regarding them, will lead to greater utilization of rehabilitative services and thus early diagnosis and disability limitation.

REFERENCES

1. Patel SK, Ladusingh L. Age pattern of onset of disability and treatment seeking behaviour of disabled persons in India [

- Internet][cited 2012 Jan 12] Available from: <http://iussp2009.princeton.edu/download.aspx?submissionId=91173>
2. Government of India. Disabled Persons in India, 58th Round National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Report No.485 (58/26/1), 2003. [internet] [cited 2012 Feb 10]. Available from: http://mospi.nic.in/rep/%20_%20pubn/485_final.pdf
 3. Walia GK .Disability. South Asia Network for Chronic Disease [internet] [cited 2012 Feb 11]. Available from: <http://sancd.org/uploads/pdf/disability.pdf>
 4. Government of India. Census and You – Disabled Population [internet] [cited 2012 Feb 10]. Available from: http://censusindia.gov.in/Census_And_You/disabled_population.aspx -
 5. Patel SK. An Empirical Study of Causes of Disability in India. The Internet Journal of Epidemiology [serial on the internet] 2009 [Cited 2012 Feb 21]: 6 (2) : Available from: <http://www.ispub.com/journal/the-internet-journal-of-epidemiology/volume-6-number-2/an-empirical-study-of-causes-of-disability-in-india.html>
 6. Haidry SZ. Community Health Global Network (CHGN). Uttarakhand Disability Situation Analysis. [internet] [cited 2012 Feb 20] . Available from: <http://docs.google.com/viewer?a=v&q=cache:WzwrCZZedcEJ:www.chgnukc.org/docs/>
 7. Fernandes A. Problems of women with locomotor disabilities, CIF International Conference, Goa 2003. [internet] [Cited 2012 Jan 28]. Available from: <http://www.karmayog.org/LIBRARY/libartdis.asp?r=152&libid=192>
 8. Mitra S, Sambamoorthi U. Disability and the Rural Labor Market in India: Evidence for Males in Tamil Nadu, 2006 [internet] [Cited 2012 Jan 5]. Available from: http://web.up.ac.za/UserFiles/MitrasSambamoorthi_Village_TN_July06.pdf
 9. Disler PB, Jacka E, Sayed AR, Rip MR, Hurford S, Collis P. The prevalence of loco motor disability and handicap in the Cape Peninsula. Part II. The black population of Nyanga. S Afr Med J 1986; 69(6):353-5.
 10. Chopra A, Saluja M, Patil J, Tandale HS. Pain and disability, perceptions and beliefs of a rural Indian population: A WHO-ILAR COPCORD study. WHO-International League of Associations for Rheumatology. Community Oriented Program for Control of Rheumatic Diseases. J Rheumatol 2002 Mar; 29(3):614-21.
 11. Osman A, Rampal K G. A study of loco motor disabilities in a Malay community in Kuala Selangor. Med J Malaysia 1989; 44(1):69-74.
 12. Laskar AR, Gupta VK, Kumar D, Sharma N, Singh M. Psychosocial Effect and Economic Burden on Parents of Children with Locomotor Disability. Indian J Pediatr 2010; 77 (5): 529-533.
 13. Joshi K, Kumar R, Avasthi A. Morbidity profile and its relationship with disability and psychological distress among elderly people in Northern India. International Journal of Epidemiology 2003; 32: 978-987.
 14. Agrawal G, Keshri K, Gaur K. Aging, Disability and Health Care Services Among Older Persons in India. Middle East Journal of Age and Ageing 2009;6(5)
 15. Rehabilitation Council of India. Manual for Training of PHC Medical Officers, Prepared for: National Programme on Orientation of Medical Officers Working in Primary Health Centres to Disability Management, 2001.[internet] [Cited 2012 Mar 1]. Available from: <http://rehabcouncil.nic.in/pdf/phcdoctors.pdf>.