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A Study on Challenges to Utilization of Health Services among Physically Disabled Patients: A Case Study of Provincial General Hospital Kurunegala Sri Lanka

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Abstract. *Introduction:* Utilization of health services among physically disabled people is poor and they face various challenges for the utilization of health services than the normal population due to their disability.

Objectives: To describe the challenges for the utilization of health services among physically disabled patients attending Orthopedic clinics, Provincial General Hospital Kurunegala (PGHK).

Methods: A descriptive cross-sectional study was conducted using an interviewer administered questionnaire. Using the patient attendance register as the sampling frame, 427 of patients who attend the Orthopedic clinics, PGHK were recruited.

Results: Among the study participants (53.63%) who had needs for utilizing health services after getting disabled, 48.47% utilized health services. The most frequent challenge among those who utilized health services after getting disabled was transport difficulty. The most frequent reason for underutilization of health services among those who had needs to utilize health services was poor general health/disability.

Conclusion & Recommendations: Physically disabled people attending Orthopedic clinics, PGHK showed poor utilization of health services due to various challenges following their disability. These issues should be addressed to improve their utilization of health services.

Key words: physically disabled people, utilization of health services, barriers and challenges for utilization of health services, reasons for underutilization

Background

According to the World Health Organization's World report on disability, about 15% of the world's population lives with some form of disability, of which 2-4% have significant difficulty in functioning (World Health Organization, 2011). The General Census conducted by the Department of Census and Statistics of Sri Lanka in 2012 indicates that 8.6% of the total Sri Lankan population living with disability and 3.9% had walking difficulty (Department of Census and Statistics, 2012).

People with disabilities have poor health status, lower education and less income than people without disabilities since they are facing physical, mental, environmental and economic barriers. They have limited access for free health care, free education, transport and employments. They are facing many barriers when accessing to the health services. To achieve universal health coverage it is important to identify these barriers and overcome those (Australian Institute of Health and Welfare, 2010; Froehlich-Grobe et al., 2016; Reichard, Stolzle & Fox, 2011).

According to the previous research, barriers related to the accessibility, affordability, acceptability, availability and quality of health services among disabled people can be seen as follows. Barriers related to the accessibility are 'transport difficulties' (Eide et al., 2015), 'distance to services' (Maart & Jelsma, 2014) and 'nobody to accompany' (Borker et al., 2012). Affordability related barriers are 'financial', 'no accommodation at health facility', 'no insurance' and 'unable to afford services and treatments' (Chikovani et al., 2015; Eide et al., 2015). Barriers related to the acceptability are 'do not know where to go for treatment',

'have not heard about service', 'thought nothing could be done', 'lack of perceived need', 'family do not perceive need', 'fear of seeking care', 'no time/other priorities', 'other medical problems', 'shame', 'did not trust that the health care staff would keep my problem confidential', 'other commitments', 'lack of awareness or information' and 'faith/belief' (Andersson et al., 2013; Chikovani et al., 2015; Eide et al., 2015; Kovai et al., 2007; Udeh et al., 2014). Availability related barriers are 'services not available', 'lack of equipment', 'tried but denied', 'difficulty finding doctors', 'waiting time at the clinic' and 'not availability of drugs and services' (Andersson et al., 2013; Eide et al., 2015; Gadallah et al., 2015; Rahim et al., 2014). Barriers related to the quality are 'discrimination or lack of awareness amongst health workers', 'poor quality treatment from health provider', 'previous bad experience', 'inadequate skills of health care providers', 'standard of facility', 'poor relationship with provider', 'provider refused care' and 'communication barrier' (Eide et al., 2015; Hamdan & Al-Akhras, 2009).

Provincial general Hospital, Kurunegala (PGHK) is a large hospital, which cater the needs of large population. There are two Orthodontic units in this hospital and there are about 600 of physically disabled people are attending to these two units per month as outpatients.

Therefore, the main purpose of this study is to identify barriers to utilization of health services among physically disabled patients attending to Orthopedic clinics, PGHK.

Results of this study will give an opportunity to identify perceived barriers to utilization of health services in the consumers' aspect. The study findings will be useful for the service providers and to the policy makers to plan and provide an effective, appropriate and accessible health service for physically disabled people.

Methods

A descriptive cross-sectional study was conducted among 427 of physically disabled patients attended to Orthopedic clinics, PGHK Srilanka. Sample size was calculated using Lwanga & Lameshow, 1991 formula. Data collection was carried out at two Orthopedic clinics, PGHK on clinic days from May 2019 to October 2019. Total sample was obtained from these two clinics proportionately to the average clinic attendance to them. The patient attendance registers of two clinics were taken as the sampling frames. All the clinic patients (outpatients) who were 18-year-old or above and who attended to the Orthopedic clinics, PGHK, during the study period were taken as the study population. Dementia/mentally subnormal patients (patients who are unable to give answers for questionnaire and uncooperative patients) and patients who did not give consent were excluded.

Sinhala and Tamil interviewer administered questionnaires were used to obtain information. The pre-testing of the questionnaire and pilot study were done at the Teaching Hospital, Kuliyapitiya. Data collection was done by the principal investigator with the help of Tamil translator when required.

Data were processed and analyzed using Statistical Package for Social Science (SPSS) version 22 by the principal investigator. Categorical data were presented as percentages. Continuous data were analyzed as mean and standard deviation.

Permission was obtained to conduct the study from the Director, PGHK and the Director and Teaching Hospital, Kuliyapitiya. Ethical clearance was obtained from the Ethical Review Committee, Provincial General Hospital, Kurunegala.

Results

Of the total sample (427) majority (38.41%) was in >55-year age group. The total sample consisted of 37.24% females and 62.76% males. Majority of the sample was Sinhalese (83.37%) and Buddhists (71.90%). Most of the study participants (77.75%) were married people. Majority were (34.19%) unemployed after disability.

Table 1. Distribution of the sample according to their disease / injury

Disease/Injury	Frequency	Percentage %
Trauma	138	32.32
Compressive myelopathy	22	5.15
Neurological conditions	53	12.41
Inflammatory conditions	79	18.50
Infections	32	7.49
Vascular disorders	47	11.01
Guillen barre syndrome	13	3.04
Cancer	11	2.58
Limb amputation	20	4.68
Tumor	12	2.81
Total	427	100.00

Majority of the study participants (40.07%) disabled before 1 year. Main cause for the disability in the sample is trauma (32.32%) (Table 1).

Table 2. Distribution of the sample according to the affected area of the body and the status of disability/function loss

Disability	Partial disability*		Complete disability**		Total	
	Number	Percentage %	Number	Percentage %	Number	Percentage %
Lower limbs only	76	31.41	102	55.14	178	41.69
Upper limbs only	51	21.07	18	9.73	69	16.16
Both upper and lower limbs	115	47.52	65	35.13	180	42.15
Total	242	100.00	185	100.00	427	100.00

*Note: *partial functions loss of affected area of the body; **complete functions loss of affected area of the body*

Majority (42.15%) of the sample had both upper and lower limb disability. In 41.69% only the lower limbs were affected and in 16.16% only the upper limbs were affected (Table 2).

Table 3. Distribution of the study sample according to the need for utilize health services for health conditions other than Orthopedic conditions after became disabled

Need for utilize health services	Number	Percentage %
Yes	229	53.63
No	198	46.37
Total	427	100.00

Most of the study participants (53.63%) had needs for utilizes health services (Table 3).

Table 4. Distribution of the study sample according to the type of needs for utilization of health services after became disabled

Type of needs for utilized health services	Yes	No
	Number (%)	Number (%)
Fever	72	31.44
Respiratory problems	159	69.43
Dental problems	91	39.74
Gastro intestinal problems	103	44.98
Neurological problems	23	10.04
Urological problems	18	7.86
Skin problems	34	14.85
Gynecological and obstetrical problems	7	3.06
Others	49	21.40
Total	229	100.00

Respiratory problems (69.43%) was the most frequent health condition for utilize health services other than Orthopedic conditions among the study participants who had need for utilize health services after disabled, while the least frequent reason was Gynecological and obstetrical problems (3.06%) (Table 4).

Table 5. Distribution of the study sample according to the utilization of health services after became disabled

Utilized health services after getting disabled	Number	Percentage (%)
Yes	111	48.47
No	118	51.53
Total	229	100.00
Type of the health services		
Government only	38	34.23
Private only	20	18.02
Both government and private	53	47.75
Total	111	100.00
Last visit to a health service		
<6 months	33	29.73
6 months – 1 year	35	31.53
>1 year	43	38.74
Total	111	100.00

Less than half of the study sample who had needs for utilizes health services, utilized health services. Majority of the study participants who utilized health services used both government and private health services. Among study participants who utilized health services, majority had visited health services before 1 year ago (Table 5).

Table 6. Distribution of subjects who utilized health services after getting disabled by perceived challenges for utilizing health services according to the affected area of the body

	Affected area of the body			Total
	Lower limbs only	Upper limbs only	Upper and lower limbs	
	Number (%)	Number (%)	Number (%)	Number (%)
Transport difficulty	29 (78.38)	10 (62.50)	41 (70.69)	80 (72.07)
Unsatisfied with parking	23 (62.16)	7 (43.75)	37 (63.79)	67 (60.36)
Unsatisfied with waiting area	18 (48.69)	6 (37.50)	23 (39.65)	47 (42.34)
Difficulty in entering to the health services	11 (29.73)	0 (0.00)	33 (56.90)	44 (39.64)
Unsatisfied with wheel chair services	16 (43.24)	0 (0.00)	21 (36.21)	37 (33.33)
No help from health staff	7 (18.92)	2 (12.50)	17 (29.31)	26 (23.42)
Unsatisfied with toilet facilities	25 (67.57)	8 (50.00)	42 (72.41)	75 (67.57)
Total	37 (100.00)	16 (100.00)	58 (100.00)	111(100.00)

Among participants who utilized health services the most frequent challenge for utilization was ‘transport difficulty’ among who had disability in lower limbs only (78.38%) and who had disability in upper limbs only (62.50%). It was ‘unsatisfied with toilet facilities’ (72.41%) among who had disability in both upper and lower limbs (Table 6).

Table 7. Reasons for not utilizing health services among study subjects who didn’t utilize health services after getting disabled among who had needs for health care, according to the affected area of the body

	Affected area of the body			Total
	Lower limbs only	Upper limbs only	Upper and lower limbs	
	Number (%)	Number (%)	Number (%)	Number (%)
Poor general health/Disability	27 (71.05)	13 (72.22)	46 (74.19)	86 (72.88)
Financial constrains	4 (10.53)	4 (22.22)	11 (17.74)	19 (16.10)
Difficulty in accessing to the health services	22 (57.89)	4 (22.22)	41 (66.13)	67 (56.78)
Ignorance of other health problems due to disability	29 (76.32)	12 (66.67)	34 (54.84)	75 (63.56)
Afraid of going for receive treatments	3 (7.89)	0 (0.00)	3 (4.84)	6 (5.08)
Nobody to be accompanied to go to a health services	11 (28.95)	5 (27.78)	21 (33.87)	37 (31.36)
No any specific reason	0 (0.00)	0 (0.00)	3 (4.84)	3 (2.54)
Total	38 (100.00)	18 (100.00)	62 (100.00)	118 (100.00)

Among participants who had perceived needs for utilize health services the most frequent reason for underutilization was ‘poor general health/disability’ among who had disability in lower limbs only (71.05%), who had disability in upper limbs only (72.22%) and among who had disability in both upper and lower limbs (74.19%) (Table 7).

Discussion

Only 48.47% had utilized health services after getting disabled. A study done by Vergunst and colleagues reported lower percentage of participants who did not utilize health services (24.4%) than the present study (Vergunst et al, 2017). Furthermore, another study indicated that 81% of disabled people utilized healthcare services, which was higher than the corresponding value of the present study (Hosain & Chatterjee, 1998).

'Transport difficulty' was the most frequent challenge for utilization of health services among the study participants who utilized health services after getting disabled. When considering the affected body parts, transport difficulty was the most frequent challenge among study participants with only upper limbs disability, only lower limbs disability and both upper and lower limbs disability. In Sri Lanka, public transport is used by most of the people. Furthermore, public transport is not a comfortable facility in Sri Lanka. Therefore, using of public transport is difficult for the physically disabled people. Moreover, due to the economic status, using private transport methods may be difficult for them. Therefore, these factors could be the reasons for the above findings of the present study. 'Unsatisfied with parking' was also a common challenge among them and it may arise with using private transport methods due to transport difficulty. Furthermore, 'unsatisfied toilet facilities' was another more frequent reason among them. There should be specially designed toilets which are user friendly for every disabled people in every healthcare setting. 'Difficulty in entering to the health services' and 'unsatisfied with wheel chair services' were more frequent challenges among people with both upper and lower limb disability and people with only lower limb disability. However, it was not presented among people with only upper limb disability. It could be due to that people with lower limb disability are having difficulty in walking and they are using walking aids such as wheel chair or claches. 'Unsatisfied with waiting area' was also another more frequent challenge among physically disabled people. These findings were concluded the aspects of health system which should be improved further to cater the healthcare needs of the physically disabled people. Therefore, user friendly waiting facilities, wheel chair facilities, access and parking facilities should be established in every healthcare setting which is specially designed for the disabled people. The least frequent challenge was 'no help from health staff'. Therefore, it is one of the better aspects of the health system in Sri Lanka.

The most frequent reason for not utilizing health services among study participants who did not utilize health services after getting disabled and who had needs for health care was 'poor general health/disability'. 'Ignorance of other health problems due to disability' was the second most common reason. As they have to face many difficulties due to their disability or illness, it could be affected to their day-to-day activities as well as to their health services utilization. Therefore, these results proved the importance of giving special attention for the utilization of health services among physically disabled people. 'Difficulty in accessing to the health services' was a more frequent reason among people with both upper and lower limbs disability and people with only lower limb disability. It was less frequent among people with only upper limb disability. 'Nobody to be accompanied to go to a health services' was also another reason for the underutilization as many physically disabled people need support for their day-to-day activities specially for the travel and access to different places. 'Financial constrains' was a less frequent reason among them. It could be due to the provision of free health services for everyone in Sri Lanka. The least frequent reason was 'afraid of going for receive treatments'. Afraid for treatments may be presented with the people with bad previous experience.

Sakellariou and Rotarou (Sakellariou & Rotarou, 2017) showed 'long waiting list(s)' and 'distance' or 'transportation problems' as barriers for using healthcare among physically disabled people in United Kingdom. However, it indicated 'cost of medical examinations or

treatments', 'cost of prescribed medications' and 'cost for mental health care' as barriers which were less frequent barriers according to the present study. It could be due to the provision of free health services for everyone by the Sri Lankan government.

Similar results were indicated in the cross-sectional study done by Alkawai and Alowayyed (Alkawai & Alowayyed, 2017) in Riyadh, Saudi Arabia among patients in physically disability. It indicated that 'problems in waiting area facilities', 'parking facilities', 'wheel chair service' as the barriers for the utilization of health services among physically disabled people similar as in the present study. 'Problems in the care of health staff'' was the least common barrier in both two studies.

The study done by Pradhan et al in Adeliaide (Pradhan, Slade, & Spencer, 2009), among physically disabled people in South Australia indicated 'transport difficulty' as their least frequent barrier for the utilization of health services, however it was a more frequent barrier according to the present study. As Australia is a developed country, it has highly developed transport system and economic status than Sri Lanka. Even though, South Australian study indicated the 'access difficulty to the health services' as their most frequent barrier, the percentage of people with the 'access difficulty' was lower than the present study. It could be due to the availability of well-developed healthcare facility in Australia as it is a developed country.

According to another study done by Rocha and colleagues (Rocha, Saintrain, & Vieira-Meyer, 2015), 'inadequate physical access', 'infrastructure including doors, hallways, waiting rooms' and 'transport difficulties' were presented as barriers for health services utilization among physically disabled people similar as in the present study.

A qualitative study (in-depth interviews and key informant interviews) conducted in Uganda indicated 'poor physical accessibility' as the most frequent challenge for utilizing sexual and reproductive health services among physically disabled people. Furthermore, it indicated 'long queues', 'long distance to health facility', 'high costs of services' and 'health workers not experienced to handle/fear persons with physically disabilities' as other challenges (Ahumuza et al., 2014). However, these factors were not presented as barriers in the present study.

A study done by Vergunst and colleagues (Vergunst et al., 2017) indicated that transport barriers, physical access to the facility and cost factors as challenges for the utilization of healthcare services among the disabled people as in the present study. Furthermore, 'inadequate drugs or equipment', 'no services available', 'journey dangerous', 'standard of the health facility', 'not sick enough', 'negative attitude of health workers', 'previously badly treated', 'tried but denied', 'because of faith', 'communication with health workers', 'no facility accommodation', 'not knowing where to go', 'couldn't get time off work' and 'don't have necessary documents' were mentioned as reasons for underutilization, however, these factors were not aroused in the present study.

A population-based study done in India (Grills et al., 2017) and the present study indicated 'difficulties in physical accessibility of health services' as a barrier for health services utilization among disabled people. However, the percentage of people with difficulties in physical accessibility of health services (12.1%) was lower in the Indian study than the present study. Furthermore, 'lack of information about health services' (14.6%), 'absence of reasonable accommodation' (11.5%) and 'cost of healthcare (e.g. doctor's fees, meds)' (10.9%) were mentioned as barriers in the Indian study which were not aroused in the present study.

Eide et al. (2015) indicated similar barriers for accessing healthcare among disabled people in South Africa, Namibia, Malawi and Sudan as in the present study such as 'lack of transport', 'could not afford the cost of the visit', 'could not afford the cost of the transport' and 'physical access to facility'. However, it indicated some barriers which were not similar

to the present study such as 'no services available', 'inadequate drugs or equipment', 'negative attitudes among health workers', 'the journey to the healthcare is dangerous', 'no accommodation at the health facility', 'previously badly treated', 'don't have the necessary documents', 'you tried but were denied healthcare', 'communication with health workers', 'standard of the health facility', 'you thought you were not sick enough', 'you did not know where to go', 'couldn't get time off work / had other commitments' and 'because of faith / belief'.

A semi-structured qualitative study done in Ghana (Ganle et al., 2016), indicated challenges for utilizing maternal healthcare among disabled women which were similar and contradictory to the present study. Similar challenges were 'mobility problems' and 'unfriendly healthcare infrastructure'. Contradictory challenges were 'limited support', 'communication problems', and 'healthcare providers' insensitivity and lack of knowledge'.

Harrison and colleagues indicated barriers for accessing healthcare among disabled people, which were similar to the findings of the present study such as transport and financial barriers. However, some factors were aroused which were not similar to the results of the present study such as 'cost of transport', 'cost of a health passport', 'cost of drugs', 'insufficient health care resources as a barrier', 'not enough drugs', 'not enough medical personnel', 'not enough diagnostic testing or specialized treatment', 'dependence on others for assistance with communication', 'unfavorable health seeking behavior as an attitudinal barrier' and 'attitudes towards disability' (Harrison et al., 2020).

A qualitative study done by Mulumba and colleagues using focus group discussions and key informant interviews indicated 'marginalized and stigmatized: most of them see us as monkeys', 'political marginalization: it's like we never existed', 'inequity in health: different levels of healthy', 'lack of access to appropriate medicine and health services' and 'the need to expand quality rehabilitative and mental health services' as factors affecting access to healthcare among disabled people. Results of this study were inconsistence to the results of the present study (Mulumba et al., 2014).

Another Indian study (Srivastava et al., 2014) indicated similar results to the results of the present study such as financial barriers, ignorance and family member not cooperative. Furthermore, it indicated 'no improvement' and 'negligence' as reasons for not utilizing healthcare services, however, they were not indicated by the present study.

Similar results could be observed in the study (Gayathri, 2015) done among inward physically disabled patients at Rheumatology and Rehabilitation Hospital, Ragama, Sri Lanka. Similar challenges for the utilization of health services were indicated by the present study and Ragama study. They were 'difficulty in entering to the dental clinic' and 'transport difficulty'. Furthermore, these two studies explored similar reasons for not utilizing oral health services among physically disabled people who had needs to utilize oral health services. They were 'Ignorance', 'general health or disability', 'access difficulty to clinic', 'no body to accompany', 'financial constrains' and 'afraid to treatment'. The present study and this study were done in Sri Lankan settings. Therefore, socio-demographic and socio-economic backgrounds among study participants were similar. Furthermore, health system and facilities of the healthcare settings were similar in both two studies. Due to these factors similar results were obtained by these two studies.

Conclusion and Recommendations

According to the results of the present study, several challenges for the utilization of health services among physically disabled people were identified. Therefore, this study revealed the importance of improving and developing facilities of all healthcare settings in Sri Lanka which are more convenient and user friendly for the physically disabled people. Furthermore, care givers should be trained and motivated. Cater the healthcare needs and

addressing challenges for the utilization of healthcare services among disabled people should be developed as a separate specialty. Moreover, there should be a national programme, policy, circulars and guidelines to address health issues of physically disabled people.

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