

*Article*

## **Physical disabilities and psychosocial status of the patients attending in a selected specialized hospital**

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**Abstract:** This study was conducted at CRP Saver Dhaka, with a view to described the various factors that affect the physical disabilities and psychosocial status of the disabled patients, from January to December, 2015. The sample size was 150 and the data were collected by using purposive sampling technique with face-to-face interview. The study revealed that, counterpart (42%). Rural area was found to have highest (56.7%) of Physical disabilities than urban areas (43.3%). Majority of respondents were come from middle and low income group. Neuromuscular disability found higher numbered (67%) than that of musculo skeletal disability (33%). Regarding reasons of disability stroke (25.3%) was in highest position followed by fall from height (21.39%), RTA (16%) and occupational (5.30%) respectively. Physical disability was one of the major causes of psychological problem. Physical disability hamper the social status, (10.7%) of the respondents were lost their jobs due to disabilities. Study found the significance difference between the physical disabilities and interruption of community involvement ( $\chi^2 = 34.162$ ,  $p < 0.05$ ). Studies regarding psychosocial aspect among the disabled are rare. This study might be improving the understanding of psychosocial problem of the physical disabled and thereby strengthening the design of more effective identification, prevention and intervention strategies.

**Keywords:** motor; dexterity disabilities; musculo skeletal disability; osteogenesis imperfect; muscular dystrophy; neuro musculo disability; cerebral palsy

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### **1. Introduction**

Approximately 650 million people in the world are disabled. Around 80 percent of these people live in developing countries (UN, 2011). According to the statistics of the World Health Organization (WHO), the number of people with a disability is estimated to be more than one billion. These numbers are increasing due to population growth, ageing process and medical advances (WHO, 2011).

According to the Physical Disability Council (2009), a physical disability can be defined as total or partial loss of a person's bodily functions (e.g. walking, gross or fine motor skills, bladder control etc.) and total or partial loss of a part of the body (e.g. a person with an amputation). Physical disabilities are also often referred to as motor disabilities. The disability can be the result of an accident or disease, but can also be congenital. Causes of physical disabilities include muscular dystrophy, multiple sclerosis, amputation or severe injury, spinal injuries. Physical disabilities can vary from temporary disabilities, such as broken limbs, to permanent disabilities (Altman, 2001).

In recent year worldwide, the prevalence of disability is argued to be growing, with population ageing and increasing incidence of chronic health conditions. Approximately 16% of the adult population aged 18 and older worldwide is disabled, with noticeable differences between high income countries (12 %) and low income countries (18 %) (WHO and WB, 2011).

Today, the world population is over 7 billion. More than one billion people, or approximately 15 per cent of the world's population, live with some form of disability. 80 % live in developing countries (UK, 2015). Bangladesh is a developing country located in South Asia and is home to approximately 160 million people. It is a country of widespread poverty, with 44.3 % of the population living below the poverty line, inadequate health, education, and social security services, low employment and at high risk from natural disasters, particularly flooding. Estimates indicate that 10% of the population i.e. 16 million people are living with a disability and these are one of the most vulnerable groups as they receive little or no assistance (CDD, 2015).

The Rapid Assessment of Disability (RAD) survey was conducted a study at Bogra district in Bangladesh with 50 people aged 18 years and older in 2010. Of 1855 adults who participated in the study, 195 (10.5 %) had disability. Age and gender adjusted prevalence of disability in Bogra district was 8.9 %. The highest prevalence of functional limitation was related to psychological distress (4.7%) followed by vision (4.4%), and hearing (2.3%) difficulties (Marella *et al.*, 2015).

[Physically disabled persons are challenged to cope with a wide range of stressors in maintaining meaningful lives. Long life survive with disability is depends, in part, on psychological and social factors that promote effective coping with old and new demands. The objective of this study was thus to identify and summarize research on physical disabilities and psychosocial status among age 18 and above with disabilities. This research will be projected to assess the physical disabilities and psychosocial status. Many researchers were carried out their research on different aspect of disabilities, but current aspect is so far. Here researcher tried to review of different research of the social and psychological status of persons with physical disabilities and thereby strengthening the design of more effective identification, prevention and intervention strategies. It is said that Sustainable, equitable progress in the agreed global development agenda cannot be achieved without the inclusion of person with disabilities. If they are not include, progress in development will further there marginalization.

## 2. Materials and Methods

### 2.1. Ethical consideration

Ethical clearance was taken from ethical committee of NIPSOM prior to initiation of study. Verbal consent was taken from the respondent before interview by explaining the aims and objectives of the study, reason for invitation in this study. Full freedom of respondents to refuse and withdraw him/her from the study anytime during the study period was taken into consideration.

### 2.2. Study design

The study was a Cross- sectional study.

### 2.3. Study population

Patients who have disabilities with the age of 18 years and above attending in CRP Saver Dhaka.

### 2.4. Study period

The study was conducted from January to December, 2015.

- a) **Study place:** The study was conducted in inpatient department and outpatient department of the Centre for the Rehabilitation of the Paralyzed (CRP) at Saver in Dhaka. It is specialized hospital for disable patient.
- b) **Sampling technique:** Purposive sampling technique was used. Sample size 150.
- c) **Inclusion criteria:** Patient who admitted in inpatient department and attending in outpatient department and patient who provide consent to participate
- d) **Exclusion criteria:** Patient who was below 18 years of age and who did not physically and mentally stable to engage themselves in this study.

### 2.5. Tool of the study

Semi- structured questionnaire were used as data collection tools. Barthel Index (customized) was used to assess the physical disability. Patient records were reviewed to collect the information regarding different types of disability. Before data collection, pre-testing of questionnaire and record review were done in CRP Mirpur

Dhaka. Face to face interview and reviewing of patient records for collection of data. The interview was conducted after explained to each respondent and informed written consents were obtained from the respondents. Data were analyzed by Statistical Package for Social Science (SPSS) version 20.

### 3. Results and Discussion

As a cross sectional study data was collected at single point in time among 150 disabled patients.

**Table 1. Demographic characteristics of the respondent (n=150).**

Age category	Frequency	Percentages
18-27	24	16.0
28-37	27	18.0
38-47	33	22.0
48-57	37	24.7
>58	29	19.3
Mean 44.43	Std.±15.33	
<b>Gender</b>		
Male	87	58
Female	63	42
<b>Marital status</b>		
Married	132	88.0
Unmarried	15	10.0
Divorce	2	1.3
Widow	1	0.7
<b>Level of education</b>		
Graduation & above	31	20.7
SSC&HSC	39	26
Secondary education	28	18.6
Primary education	31	20.7
No education	21	14
<b>Occupation</b>		
Service	37	24.7
Business	24	16.0
Housewife	52	34.7
Agriculture	17	11.3
Day labor	8	5.3
Student	7	4.7
Others	5	3.3
<b>Earning member of the family</b>		
1	86	57.3
2	51	34.0
3	10	6.7
4	2	1.3
5	1	0.7
<b>Average monthly income</b>		
Upto 10,000	39	26.0
10,001-20,000	66	44.0
20,001-30,000	23	15.3
> 30,000	22	14.7
<b>Area of residence</b>		
Rural area	85	56.7
Urban area	65	43.3
<b>Total</b>	<b>150</b>	<b>100</b>

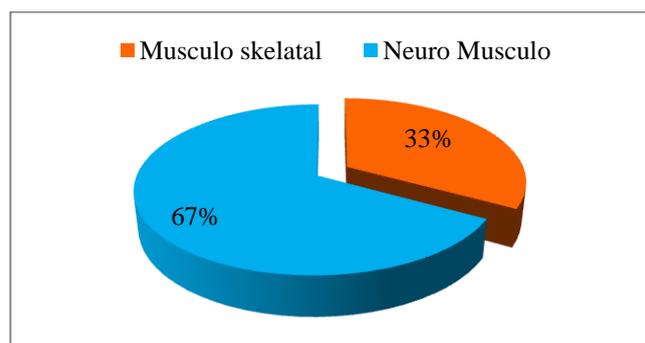
Table 1 shows that, highest number 37 (24.7%) of the respondents were found to age group 48-57 years and lowest number 24 (16%) of the respondents found to age group 18-27 years. Mean±STD was 44.43±15.33 years respectively and from them 87 (58%) were male and 63 (42%) were female. Majority of the respondents 132 (88%) was married and lowest number of respondent 1 (0.7%) was widow, rest 15 (10%) and 2 (1.3%) was

unmarried and divorce respectively. Out of 150 respondents, 39 (26%) was SSC and HSC passed, no education was 21 (14%), primary education, graduation & above shown same 31 (20.70%), rest secondary education was 28 (18.70%) of the respondents. Most of the respondents 52 (43.7%) were housewife and lowest 5 (3.3%) others. It shown 37 (24.7%), 24 (16%), 17 (11.3%) respondents were service, business, agriculture and day labor respectively. Here, 86 (57.3%) of the respondent’s family had 1 earning person, 51 (34%) respondents had 2 earning person rest 10 (6.7%), 2 (1.3%) and 1 (0.7%) respondents family had 3, 4 and 5 earning person respectively. Among the respondents, highest monthly family income 66(44%) were found to Tk. 10001-20000.Very few family income 22 (14.7%) found to >30000. Rest 39 (26%) and 23 (15.30%) family income were found up to 10000 and 20001-30000 Tk. respectively. Among the respondents, 85 (56.7%) was lived in rural area and 65 (43.3%) of the respondents lived in urban area.

**Table 2. Distribution of the respondents according to Physical Disability related information (n=150).**

Reason of disabilities	Frequency	Percentage
Stroke	38	25.30
Chronic diseases	1	0.7
Chronic pain	8	5.3
RTA	23	16
Fall from height	31	21.3
Fighting	7	4
Joint and bone disease	22	14.1
Occupational	8	5.3
Others	12	8
<b>Types of paralysis</b>		
Monoplegia	33	22.0
Hemiplegia	40	26.7
Paraplegia	45	30.0
Tetraplegia	17	11.3
No paralysis	15	10.0
<b>Severity of physical disability</b>		
Mild	51	34.0
Moderate	67	44.7
Severe	32	21.3
<b>Total</b>	<b>150</b>	<b>100.0</b>

Table 2 shows that, highest numbers of respondent’s 38(25.30%) reason of disability was stroke. Lowest 1(0.7%) reson of disability was chronic disease. 31(21.3%) respondent’s reason of disability was fall from height, 22(14.1%) reason of disability was joint and bone disease, 12(8%) respondent’s reason of disability was others and 46(30.6%) respondent’s reason of disability was Chronic pain, RTA, Fighting and Occupational respectively. Among the respondents, types of disability found paraplegia, 45(30%) of the respondents, hemiplegia 40(26.7%), monoplegia 33(22%), tetraplegia 17(11.3%) of the respondents, rest 15(10%) of the respondents had no paralysis. Here we found that, among the respondents, severely physical disabled were found 32(21.3%) of the respondents, moderately disabled were 67(44.7%) and rest 51(34.0%) were mildly physical disabled.



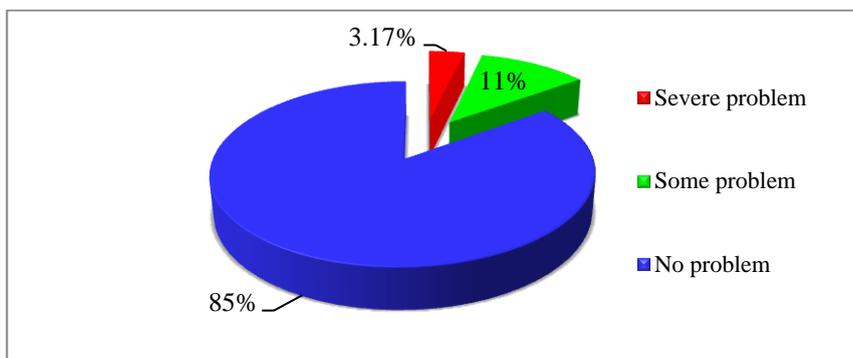
**Figure 1. Distribution of the respondents by types of physical disabilities (n=150).**

This study found that out of 150 respondents 67% had Musculo Skeletal disability, and 33% had neuro musculo disability (Figure 1).

**Table 3. Distribution of the respondents by inability of motor functions (n=150).**

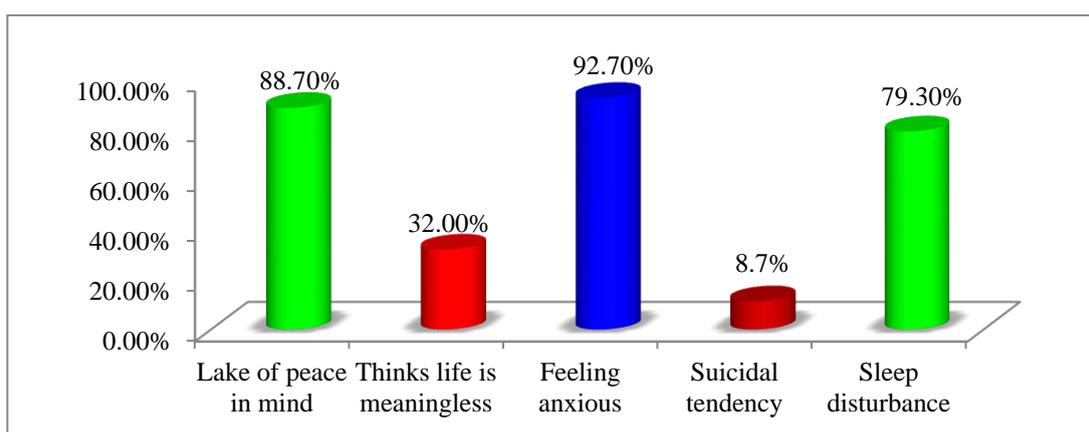
<b>Ability to feed</b>	<b>Frequency</b>	<b>Percentage</b>
Unable	17	11.3
Need help	51	34.0
Able	82	54.7
<b>Ability to wear dress</b>		
Unable	11	7.3
Need help	89	59.3
Able	50	33.3
<b>Ability to use toilet</b>		
Unable	12	8.0
Need help	99	66.0
Able	39	26.0
<b>Ability to take bath</b>		
Unable	37	24.7
Need help	79	52.7
Able	34	22.7
<b>Ability to get into bed</b>		
Unable	16	10.7
Need help	99	66.0
Able	35	23.3
<b>Ability to walk outdoor in the street</b>		
Unable	69	46.0
Need help	59	39.3
Able	22	14.7
<b>Ability to walk stair</b>		
Unable	70	46.7
Need help	60	40.0
Able	20	13.3
<b>Ability to use wheelchair</b>		
Unable	15	10.0
Need help	73	48.7
Able	62	41.3
Total	150	100.0

Table 3 shows that 17 (11.3%) respondents was unable to feed whereas 51 (34%) and 82 (54.7%) was need help and able to feed respectively. Among 150 respondents, 11 (7.3%) respondents showed unable to wear dress, 89 (59.3%) respondents need help to wear dress and 50 (33.3%) respondents were able to wear dress. Here, only 12 (8%) were unable to use toilet, 99 (66%) were need help and 39 (26%) respondents were able to use toilet. Out of 150 respondents, 37 (24.7%) was unable to take bath, 79 (52.7%) need help and 34 (22.7%) was able to take bath. Here we found that, 16 (10.7%) respondents were unable to get into bed, 99 (66%) need help and 35 (23.3%) respondents were able to get into bed. It is seen that out of 150 respondents, 69 (46%) was unable to walk outdoor in the street, 59 (39.3%) was need help and 22 (14.7%) was able to walk outdoor in the street. This study revealed that highest number 70 (46.7%) was unable to walk stair lowest number 20 (13.3%) able to walk stair and rest 60 (40%) respondents need help to walk stair. Lowest number 15 (10%) respondents was unable to use wheelchair and the highest number 73 (48.7%) respondents was need help to use wheel chair, other 62 (41.3%) respondents able to use wheelchair.



**Figure 2. Distribution of the respondents by inability of sensory function (n=150).**

Figure 2 shows that out of 150 respondents, only 3.17% respondents had severe sensory problem and 11.33% respondents had some sensory problem rest 85.50% respondents had no sensory problem.



**Figure 3. Distribution of the respondents by severe psychological problem.**

Figure 3 revealed that highest number (92.70%) of the respondents was feeling anxious, lowest number (8.7%) had suicidal tendency, rest (88.70%), (79.30%) and (32%) had lack of peace in mind, sleep disturbance and think life is meaningless respectively.

**Table 4. Distribution of the respondent by their Social information (n=150).**

Loss of working time (in month)	Frequency	Percentage	
1-20	113	90.4	
21-40	10	8.0	
41-60	2	1.6	
<b>Loss of job</b>			
Yes	16	10.7	
Uncertain	1	0.7	
No	133	88.7	
<b>Social Factors</b>	<b>Yes f (%)</b>	<b>No f (%)</b>	<b>Uncertain f (%)</b>
Community involvement interrupted	127 (84.7)	23 (15.3)	----
Deprived from visit of neighbour	106 (70.7)	43 (28.7)	1 (0.7)
Deprived from visit of relatives	70 (46.7)	75 (50)	5 (3.3)
Deprived from receive care of family	22 (14.7)	128 (85.3)	----

Table 4 shows that, 113(90.4%) of the respondents were found to loss of working times 1-20 months, lowest number 2(1.6%) were found to 41-60 months, rest 10(8.0%) of the respondents were found to loss of working times 21-40 months. Among 150 respondents 16(10.7%) was lost their jobs due to disabilities, 1(0.7%) was uncertain, other 133(88.7%) of the respondents didn't lose their job. Highest number 127 (84.7%) of the respondents' community involvement was interrupted and lowest 23(15.3%) of the respondents' community

involvement not interrupted. Deprived from visit of neighbor was 106(70.7%), uncertain 1(0.7%), no deprive from visit of neighbor was 43(28.7%). Deprived from visit of relatives and deprived from receive care of family was 70(46.7%) and 22(14.7%) respectively.

**Table 5. Difference between severity of physical disability and interruption of community involvement.**

Severity of physical disability	Community involvement interrupted		Total
	Yes	No	
Mild	31 (60.8%)	20 (39.2%)	51 (100.0%)
Moderate	83 (97.6%)	2 (2.4%)	85 (100.0%)
Severe	13 (92.9%)	1 (7.1%)	14 (100.0%)
Total	127 (84.7%)	23 (15.3%)	150 (100.0%)

df=2,  $\chi^2=34.162$ , p=0.001

Majority 13 (92.9%) of the respondents among the severely disabled were found that their community involvement were interrupted, on the other hand 31 (60.8%) of the respondents among the mildly disabled found that their community involvement were interrupted. This difference between physical disabilities and community involvement was found statistically significance.

#### 4. Discussion

The study was conducted to assess the physical disabilities and psychosocial status of the patients attending at Centre for the Rehabilitation of the Paralyzed (CRP) Saver Dhaka. In Bangladesh data regarding physical disabilities and psychosocial status are very limited. The outcomes of the study are discussed below:

In this study, highest number 37 (24.7%) of the respondents were found to age group 48-57 years and the lowest number 24 (16%) of the respondents were found to age group 18-27 years. Mean age and Std. was  $44.43 \pm 15.33$  years respectively. A study was conducted to estimate the prevalence of disability and its associated risk factors among adults aged 18 years and over in Bogra district, Bangladesh, it found that higher disability in higher age group with approximately eight-fold increase from 2.9 % in 18–24 years to 24.5 % in 55 years and above (Marella *et al.*, 2010). Another study showed that the mean age and Std. was  $40.8 \pm 14.1$  years (Groot *et al.*, 2006). Previous study supports the finding of this study.

This study showed that highest 38 (25.30%) reason of disability were stroke. Lowest 1 (0.7%) reason of disability were chronic disease. Fall from height, RTA and other reason of disability were 32 (21.39%), 24 (16%) and 12 (8%) respectively. Another study showed in case of traumatic injury 18% are resulted of a road traffic accident (Hoque *et al.*, 2002). The findings of previous study support the findings of this study.

This study found that out of 150 respondents, 67% had musculoskeletal disability, and 33% had neuro musculo disability. A study showed-Skeletal level of injury 39.2% (Ditunno *et al.*, 1997). According to CDA's statistics 2013 found Musculoskeletal/connective tissue disorders cause (28.5%) disability and Cardiovascular/circulatory disorders cause (22.1%) disability. Bangladesh Bureau of Statistics (2011) and Islam (2012) revealed that stroke was the third leading cause of death in Bangladesh and accounting for 2.55% of the total number of disabilities. Findings of previous and this study didn't show closer, that may be due to the problem of data collection technique.

In this study the inability of motor function of the respondents (46.47%) was unable to walk stair, (46%) unable to walk outdoor, (24.70%) unable to take birth, rest 11.30%, 10.70%, 10%, 8% and 7.30% unable to- feed, get into bed, use wheelchair, use toilet and wear dress respectively. Physically impaired people have the largest share (about 31%) among the PWDs. (Titumir and Hossain, 2005). A study found that ambulatory disability in the US working population was 5.3% and West Virginia was 10.3%. Self care disability in West Virginia were 3.2%. Independent living disability was 6.6% in West Virginia. Findings of previous study support the finding of this study.

Among 150 respondents 16 (10.7%) was lost their jobs due to disabilities. 1 of the respondents was uncertain and 133 (88.7%) of the respondents didn't lose their job. A study showed that a job and family raise the quality of life of unemployed women with disabilities; these women should be given employment opportunities (primarily self-employment) as well as support for their families (Vuletic, 2007). Negative attitudes regarding people with disabilities as workers and employees are kept in place by myths by ineffective rehabilitation placement methods and by employer hiring procedures designed solely to avoid making risky hires.

Study found that highest 127 (84.7%) of the respondents' community involvement was interrupted and lowest 23 (15.3%) of the respondents' community involvement not interrupted. Deprived from visit of neighbor was 106 (70.7%), uncertain 1 (0.7%), no deprive from visit of neighbor was 43 (28.7%). Deprived from visit of

relatives and deprived from receive care of family was 70 (46.7%) and 22 (14.7%) respectively. Disability is something imposed on top of our impairments by the way we are unnecessarily isolated and excluded from society. People with disabilities regularly identify societal attitudes as the most potent and negative stressor in their lives.

Majority 13 (92.9%) of the respondents among the severely disabled were found that their community involvement were interrupted, on the other hand 31 (60.8%) of the respondents among the mildly disabled found that their community involvement were interrupted. This difference between physical disabilities and community involvement was found statistically significance. ( $\chi^2=34.162$ ,  $p<0.05$ ). Disable people can't move properly to attend the community or any social function. Thus social relation was found to be strongly associated with disease and disability.

## 5. Conclusions and Recommendations

This finding can be helpful to health professional especially those who are working with physical disabilities and make plan for development of disabled person. As a result effective intervention plan can reduce and prevent the cause of disability and provide appropriate rehabilitation of the disabled person.

The study forwarded following recommendation on the basis of the emerged findings:

- i. Persons with physical disabilities have traditionally been perceived negatively and they were the burden in the family as well as society, despite the fact that the government can made public education and strengthened rehabilitation program.
- ii. Physical disabilities hamper the psychosocial status of the disabled person. For improving the situation of the person with disabilities, actions should be taken to ensure their increased access to education, health and employment.
- iii. Maximum causes of disability are preventable, effective awareness can prevent and reduce the rate of disability.

## Conflict of interest

None to declare.

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