



The Quality of Life of Children and Adolescents with Spinal Cord Injury in Physical, Emotional, Social and School functioning

Nupur Binte Lili

MSc.OT, MSS-CSW, BSc.OT

Junior Consultant- Occupational Therapy,

Centre for the Rehabilitation of the Paralysed (CRP), Bangladesh

Prof. Md. Obaidul Haque Vice Principal, BHPI, CRP

Disclosure: No financial disclosures.



Background:

- Quality of life studies of children and adolescents is a growing field.
- Beside this quality-of-life studies concerning children and adolescents with Spinal cord injury is still unrevealed appropriately.
- In Bangladesh this crucial field of studies is still neglected from various aspects.
- Children and adolescents are always innocent thought but understanding their quality of life after having spinal cord injury is not similar.

- Children and adolescents have developmental consideration for growing and facilitate a normal life.
- On the other hand, having spinal cord injury may impact largely on this normal development by considering various dimension like their physical health, psychosocial health, social functioning, emotional functioning and their school function level.
- The pediatric quality of life inventory (PedsQL™) generic version 4 is considered as an instrument with the availability of age-appropriate version and parallel forms for both child and parents.

Key gaps

- There are very limited number of studies is present about pediatric spinal cord and their Quality of life in deferent aspects.
- Among of these limited studies few were looking about the SCI sleep relevance, socioeconomic consequences, care giver understanding.
- But by searching the literature of this study it has been found that yet there was no relevant study was found based on play, and ADL (Activity of daily life) participation related QOL, specific pediatric SCI health related quality of life, except Development of the Pediatric Quality of Life Inventory TM Spinal Cord Injury (PedsQL TM SCI) module : qualitative methods. Spinal Cord.
- There are no internationally approved, evidence-based guidelines for specialized pediatric SCI rehabilitation, and the literature about specialized pediatric SCI rehabilitation is limited. Epidemiological data on SCI are sparse, especially for incidence, and are non-existent for prevalence of pediatric SCI (Höfers et al., 2021).

Aim

This study aimed to know the quality of life of children and adolescents with spinal cord injury (SCI) in physical health, psychosocial health, emotional functioning, social functioning and school functioning.

Objectives

- To know the Socio- demographic overview of children & adolescence with SCI in Bangladesh.
- To find out physical & emotional functioning for children & adolescents with SCI
- Social and School functioning of children and adolescents with SCI
- To find out factors related to physical, social, emotional & school functioning of children and adolescents with SCI.

Key words:

Quality of life,
Children & adolescents with spinal cord injury,
physical health,
psychosocial health, and
emotional, social & school functioning.

- *Study Method* : Quantitative methodology
- *Study Approach*: Cross sectional study approach

Study Setting and Period

Study Setting: community settings of the participants. The community was selected according to the living areas of patient particularly those were discharge from Centre for the Rehabilitation of Paralysed (CRP) after their initial treatment and currently living in their own community.

Study Period: November 2023 to October 2024 and data were collected between January, February, March 2024.

Study Participants

Study Population: Children and adolescence with Spinal Cord Injury (SCI).

Sampling Techniques: Purposive sampling technique was used in this study.

Sample Size: The calculated sample size was about 384 .

Data from 48 participants of the study sample were entered for the analysis. Among all participants of the study sample 27 were male and 21 were female children & adolescents with SCI.

Inclusion Criteria

- Children and adolescence with SCI age up to 18 years.
- Children and adolescence with SCI those who completed their rehabilitation from CRP.
- Children and adolescence with SCI those who were living in their community after completing their rehabilitation following injury.

Exclusion Criteria

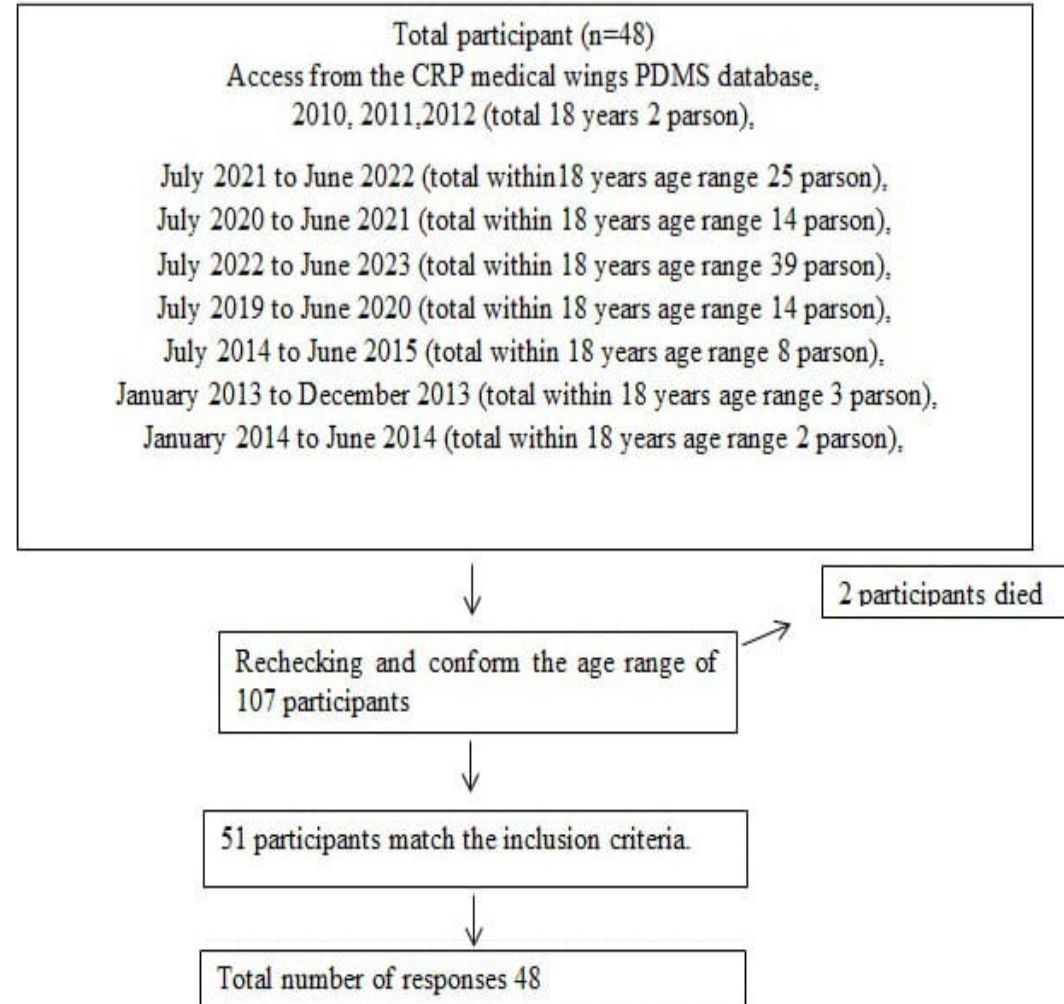
- Children and adolescence with SCI with other life-threatening conditions.
- Children and adolescence with tetraplegic SCI

Data Collection Process

Participant Recruitment Process: Permission from the CRP Research and monitoring & evaluation department through Occupational therapy department of (BHPI) => collect information about the possible participants => list down the all-potential participants. => investigator & volunteers went to the community and if the participant fit for the study, then collect data .

Data Collection : *Data* were collected through Face to face interview by using the Pediatric quality of life inventory (PedsQL) questionnaire.

overview of the participant's recruitment process



Data Collection Tool

Pediatric Quality of Life Inventory (PedsQL generic version 4)

Statistical Tools:

Data analyze by using SPSS software and Microsoft excel.

Descriptive analysis used to calculate frequencies, mean, standard deviation of data.

The socio-demographic profile of children and adolescents with SCI the notable findings are that, a high percentage of participants were male children with SCI and they were reside in rural areas. Among all the participants a significant proportion of the children with SCI (72.9%) were involved in an institution- based study program, while 27.1 % were not. History of school drop was also present among the participants, 43.8% of the children with SCI were reported having dropped out of school.

Table 4.1 : Socio- demographic overview of children & adolescence with SCI in Bangladesh.

Variable	Category	n= 48	Percent (%)
Gender	Male	27	56.3
	Female	21	43.8
Age in years	2-6 years	3	6.3
	7-11 years	7	14.6
	12-15 years	12	25
	16-18 years	26	54.2
Highest Level of Education	Primary- School	23	47.9
	Secondary - School	24	50
	Higher Secondary	1	2.1
Institution based study program involvement	Yes	35	72.9
	No	13	27.1
History of school drop present	Yes	21	43.8
	No	27	56.3
Living Division	Dhaka	22	45.8
	Chattagram	5	10.4
	Barisal	9	18.8
	Khulna	5	10.4
	Rajshahi	2	4.2

Only 6.3% Children were 2-6 years while 14.6 % were between 7-11 years. 25% children were 12-15 years. The highest percentages 54.2% children were 16-18 years age range.

If we talking about their highest level of education, it found that 47.9% children engaged with primary School and 50% children joined secondary school.

Study find that higher secondary school participation of children with SCI is dramatically lower that is only 2.1%

Table 4.1 : Socio- demographic overview of children & adolescence with SCI in Bangladesh continue...

Variable	Category	n= 48	Percent (%)
Living Area	Urban	6	12.5
	Semi Urban	16	33.3
	Rural	23	47.9
	Semi- rural	3	6.3
Family monthly income range	10000-20000	29	60.4
	21000-30000	7	14.6
	31000-40000	4	8.3
Primary Caregiver	Father	1	2.1
	Mother	34	70.8
	Parents	9	18.8
	Others	4	8.3
Assistive device use	Yes	41	85.4
	No	7	14.6

And the children and adolescents face various social, emotional, physical challenges that impact on their school functioning. Children & adolescents with SCI facing moderate level physical functioning difficulties.

The average emotional functioning shows 11.56 ± 3.92 that indicates emotional functioning status level is low among them. The Social functioning level is also lower as the average score was 11.02 ± 5.53 . On the other hand, the average score of psychosocial health was 57.54 ± 16.140 represents psychosocial functioning status is higher level among the children and adolescents with SCI in Bangladesh.

Overview of functioning level among children and adolescents with SCI in Bangladesh following the PedsQL Inventory Generic version 4.0

<i>Variable</i>	<i>N=48</i>	<i>Mean</i>	<i>SD</i>
Physical Health		22.5625	6.86932
Emotional Functioning		11.5417	3.9246
Social Functioning		11.0208	5.53322
School Functioning		12.4167	5.83034
Psychosocial Health		57.5417	16.14029

Note. *N* = Number of participants; *SD* = Std.Deviation.

Conclusion

Understanding a more accurate picture the Quality of Life of children and adolescents with SCI in physical health, emotional functioning, social functioning and school functioning status will help to set holistic approach to rehabilitation, and help to set multidisciplinary team (MDT) rehabilitation goal effectively for children and adolescents with SCI in Bangladesh.

RECOMMENDATION:

As the study sampling technique was purposive sampling, if Simple random sampling can follow in future research the results will more generalization.

WFOT Congress 2026



Thank You for your attention

For further information and questions, you can contact me via my email address:

Nupur.prof@yahoo.com
lilinupur@gmail.com