

Original article:

Study of socio-demographic and morbidity profile of physically challenged children attending special primary schools in an urban city

Nitin S. Palwe¹, Armaity S. Dehmubed², Purushottam A. Giri³, Prachi V. Chakor (Palwe)⁴

^{1,4} Ex. Resident Medical Officer, Dept. of Community Medicine (PSM), Seth G. S. Medical College & KEM Hospital, Mumbai, India

² Associate Professor, Dept. of Community Medicine (PSM), Topiwala National Medical College, Mumbai, India

³ Associate Professor, Dept. of Community Medicine (PSM), Rural Medical College, Loni, Maharashtra, India.

Corresponding author : Dr. Armaity S. Dehmubed ; E-mail: armaity.dehmubed@gmail.com

Abstract:

Context: Social model of disability conceptualizes disability as arising from the interaction of a person's functional status with the physical, cultural, and policy environments. The present study was carried out to study the socio-demographic and morbidity profile of physically challenged children attending special primary schools in an urban city.

Materials and methods: A cross-sectional study was carried out during the period of June 2009 to May 2010. A total of 301 children were included in the study by universal sampling method. A preformed systematic questionnaire was used as a tool for interviewing the participant. Data was analyzed in the form of percentage and proportions.

Results: In the present study, 210 (69.8%) children were males and 91 (30.2%) were females. Majority 215 (71.4%) children belonged to Hindu religion. About 62.8% of children were taken treatment in government hospital. Majority 256 (85.1%) children had received complete routine immunisation. The common illnesses were cough 46 (13.4%) and common cold 45 (13%). There were 37 (10.7%) children who had a complaint of fever. There were 178 (59.1%) children with caries teeth. Anaemia was found in 30 (9.9%) children.

Conclusion: As study revealed that large proportion of children's suffered from symptomatic morbidities mainly of teeth, respiratory, gastrointestinal and skin.

Key words: Morbidity profile, physically challenged children, primary school, Mumbai

Introduction:

Social model of disability conceptualizes disability as arising from the interaction of a person's functional status with the physical, cultural, and policy environments. (1) According to the social model, disability is the outcome of the interaction of person and their environment and thus is neither person nor

environment specific. The International Classification of Functioning, Disability and Health (ICF) developed by the World Health Organization is the starting point for recent developments in measuring functional capacity. (2) Physically disabled (differently abled) is the one who has an orthopedic impairment interfering with the normal functions of

the bones, joints or muscles to such an extent that special arrangements must be made for locomotion. Physically disabled children are those children who are crippled, deformed, and/or neurologically impaired. Physically handicapped persons do not include children who have sensory handicaps as deafness, blindness, speech defects and so forth. With this view the work was carried out to study the socio-demographic and morbidity profile of physically challenged children attending special primary schools in an urban city.

Materials and methods:

A cross sectional epidemiological study was carried out during the period of June 2009 to May 2010. Three special schools meant for physically disabled were selected, which were all run by the same non government organization (NGO) in Mumbai. The children and the parents/ guardians of children were included in the study. It was done by universal

sampling method. All enrolled children in pre-primary and primary section of schools were selected for study. The total number of children including three schools was 301. The informed consent was taken from parents (participant). A preformed systematic questionnaire was used as a tool for interviewing the participant. The addresses and telephone numbers of participants were taken from the school register with the permission from the concerned principal of the school. The timing of interview was decided with prior telephonic conversation with participant. Data collection was done by using preformed, systematic questionnaire. It was suitably modified to meet objectives of the study. Ethical committee of the institute approved the study.

Statistical analysis: All recorded data were entered in MS Excel and analyzed in the form of percentage and proportions whenever appropriate.

Results:

Table 1: Socio-demographic profile of the study population

Socio-demographic profile	Number (n=301)	Percentage
1. Age (in years)		
Less than 10	118	39.2
Between 10-15	154	51.2
More than 15	29	9.6
2. Sex		
Male	210	69.8
Female	91	30.2
3. Immunization History		
Complete	256	85.1
Partial	35	11.6
Unimmunized	10	3.3

4. Religion		
Hindu	215	71.4
Muslim	84	27.9
Christian	02	0.7
5. Residence		
Kaccha house	01	0.3
Semi pacca house	219	72.8
Pucca	81	26.9
6. Treatment taken for disability		
Private hospital	112	37.2
Government hospital	189	62.8

It was seen from table 1 that the minimum age of child was found to be 4 years and the maximum age was found to be 21 years. Majority 210 (69.8%) children were males and 91 (30.2%) were females. Majority 215 (71.4%) children belonged to Hindu

religion. About 62.8% of children were taken treatment in government hospital. Majority 256 (85.1%) children had received complete routine immunisation.

Table 2: Morbidity profile of the study population

Common morbidities	Number (n=301)*	Percentage
Common cold	45	13.0
Cough	46	13.4
Fever	37	10.7
Worms in stool	36	10.5
Diarrhoea	04	1.2
Anemia	30	9.9
Lymphadenopathy	13	3.7
Caries teeth	178	59.1
Skin disorders	37	10.7
Others (includes refractive errors and Vit. deficiency)	37	12.3

(*Multiple responses)

As seen from table 2 that the common illnesses were cough 46 (13.4%) and common cold 45 (13%). There were 37 (10.7%) children who had a complaint of fever. There were 178 (59.1%) children with caries

teeth. Skin disorders were found in 37 (10.7%). Anaemia was found in 30 (9.9%) children. Only 1.2% children had diarrhoea.

Table 3: Socioeconomic status according to Kuppuswamy's scale

Socioeconomic class	Number (n=301)	Percentage
Upper (I)	00	00
Upper middle (II)	100	33.2
Lower middle (III)	195	64.8
Upper lower (IV)	6	2.0
lower (V)	00	00

It was seen from table 3 that 195 (64.8%) belonged to the lower middle class followed by 33.2% belonged to upper middle class. It is important to mention that in 31 households, mothers of disabled children were working and were significantly contributing to the household income. It was also found that in majority of the households; only single person was working so that considering average 4 persons in the family, there was an extra burden on earning member.

Discussion

In the present study, the common illnesses were cough 46 (13.4%) and common cold 45 (13%). There were 37 (10.7%) children who had a complaint of fever. There were 178 (59.1%) children with caries teeth. Skin disorders were found in 37 (10.7%). Anaemia was found in 30 (9.9%) children. Only 1.2% children had diarrhoea. Similarly a study done by Soumya D et al.,(3), among primary school children in South Kolkata. The most common morbidity was detected anaemia (55.34%), worm infestation (39.81%) followed by caries in teeth (33.34%).

K Srinivasan and Prabhu G (4), carried out a cross sectional & longitudinal study to find morbidity status of children in social welfare hostels in Tirupati town. They surveyed total 598 children (341 boys and 257 girls). The common prevalent morbid conditions found were skin disorders (25.7%), dental caries (21.5%), and history of passing worms in stool (21.6%), Vitamin B deficiency (3.2%), and diarrhoea (1.2%). The prevalence of anaemia was found to be 79.6%.

Awate R et al.,(5) carried out study to find the prevalence of morbidity disorders among rural primary school children (5-15 years). Investigators carried out the survey in 1992, in 3 primary schools of Maharashtra State. 1050 primary school children of 5-15 years of age were studied. Most common among the 1050 children examined were anemia (32.47%), vitamin A deficiency (9.8%), vitamin B-complex deficiency (2.57%), 68% were assessed as having poor personal hygiene, 30.47% were infested with worms, and 10.66% had acute respiratory infections.

Kuppuswamy's socioeconomic status is an important tool in hospital and community based research in India. This scale takes account of education, occupation and income of the family to classify study groups in to high, middle and low socioeconomic status. In our study, none of the household belonged to the upper and lower class of Kuppuswamy's socioeconomic scale. Patil R.(6), in their research in rural community of Karnataka, found that prevalence of disability was lowest among high socio-economic group except in case of special disability, which was higher in high socio economic group. Borkar S et al.,(7) in their research in Goa, in rural community found highest prevalence of disability in the lowest social class. Loaiza E and Cappa C (8) conducted a study on children of age group of 2 to 9 years in United States of America. Multiple Indicators Cluster Survey (MICS) method was used. Different types of

disabilities were enquired. It was found that children in urban areas showed higher prevalence of physical disability and males showed higher prevalence of physical disability as compared to females.

Conclusion:

As study revealed that large proportion of children's suffered from symptomatic morbidities mainly of teeth, respiratory, gastrointestinal and skin. There was a need for motivation of parents and the children. It is important for the overall development of the children. It could be done by providing information of various options available for the future development e.g. self employment and giving examples of successful people with disabilities. Local government and non government organisations should be made aware of problems of disabled person. This could be done with the help of volunteers from community (like teachers, college students, health workers) etc.

References:

1. Shakespeare T and Watson N. Defending the Social Model, Disability and Society, 12(2):293-300, April (1997) and Hughes B and Paterson K. The Social Model of Disability and the Disappearing Body: towards a sociology of impairment, Disability and Society 12(3):325-340, June (1997).
2. ICF homepage at www3.who.int/icf/icftemplate.cfm.
3. Deb S, Dutta S, Dasgupta A, Misra R. Relationship of personal hygiene with nutrition and morbidity profile: A study among primary school children in South Kolkata. Indian J Community Medicine 2010; 35: 280-4.
4. Srinivasan K and Prabhu G. A study of the morbidity status of children in social welfare hostels in Tirupati town. Indian Journal of Community Medicine 2006; 31:170- 72.
5. Awate R, Ketkar Y, Somaiya P. Prevalence of nutritional deficiency disorders among rural primary school children (5-15 years) J Indian Med Assoc, 1997;7: 410-15.
6. Patil R. Prevalence and Pattern of Disability in a Rural Community in Karnataka. Indian Journal of Community Medicine, 2004;29(4):112-15.
7. Borkar S, Motghare D, Venugopalan P, Kulkarni M. Study of Prevalence and Types of Disabilities at Rural Health Centre Mandur – A Community Based Cross Sectional House to House Study in Rural Goa, IJPMR 2008; 19(2):56-60.

8. Loaiza E and Cappa C. Measuring children's disability via household surveys, The MICS experience, Paper presented at the 2005 Population Association of America (PAA) meeting. March 30 - April 2, 2005. Philadelphia, 2005