



A SURVEY OF SOCIO-DEMOGRAPHIC PROFILE OF CEREBRAL PALSY IN THE PANIPAT CITY

Bhaskar Kanika | Dr. Shefali Kapoor Sharma

ABSTRACT

The study was carried out to find out. There is emerging empirical evidence of the socio – demographic profile of cerebral palsy in panipat city. This cross-sectional study assessed the socio – demographic profile of cerebral palsy in panipat city. A total 200(107 male and 93 female) of age between 2- 7 year subject with premature birth (< 36 weeks) and low birth weight (< 2500 g) participate in the study. A structured questionnaire which sought information on socio- demographics, gestational age, birth weight, mother history and neonatal history was used to obtain data from the respondents who were taken from all government and private hospitals/ nursing homes having Obs & gyne department. More than half of the respondents out of 54 cases of CP 51.7% of illiterate parent's children reported diagnosis was CP and 42.6% was aware of physical therapy importance in CP. There were significant associations between gestational age and low birth weight ($p=0.000^{**}$ and $p=0.000^{**}$ respectively). CP was significantly influenced by socio-demographic profile of the parents.

KEYWORDS: Socio-Demographic, Profile, Cerebral Palsy.

Introduction

Cerebral palsy (CP) describes a group of permanent disorders of the development of movement and posture, causing activity limitation that is attributed to non-progressive disturbances that occurred in the developing fetal or infant brain (ZeljkaPetelin 2011). The motor disorders of cerebral palsy are often accompanied by disturbances of sensation, perception, cognition, communication, and behaviour, by epilepsy, and by secondary musculoskeletal problems” (Hwang, M 2011). Cerebral palsy is a static neurologic condition resulting from brain injury that occurs before cerebral development is complete. Because brain development continues during the first two years of life, cerebral palsy can result from brain injury occurring during the prenatal, perinatal, or postnatal periods (Nadire BERKER and Mayer NH 1997).

CP is classified into four categories. They are Spastic, Athetoid, Ataxia and Mixed type of CP. Spastic cerebral palsy is the most common type of CP (Cerebral Palsy Source, 2005). Socio-demographic profile has significant impact on cerebral palsy. The concentration of subjects in the lower socio-economic groups is consistent with previous association of CP with poor education and poverty resulting in limited antenatal and delivery care. These characteristics may help us identify factors that need further study in order to reduce the burden of CP in panipat city.

Methodology:

200 Respondents were taken from the panipat city after clearance was obtained from ethical committee of Prem Physiotherapy and Rehabilitation College. Permission was obtained from municipal committee, DC, government and private hospitals/ nursing homes of panipat city. Parents of their children are contacted and asked for informed consent after which a detailed questionnaire filled by the same. The questionnaire was tested for reliability was determined in a pilot study among 20 subjects. The internal consistency of the questionnaire was found to be 0.89 on Cronbach's alpha.

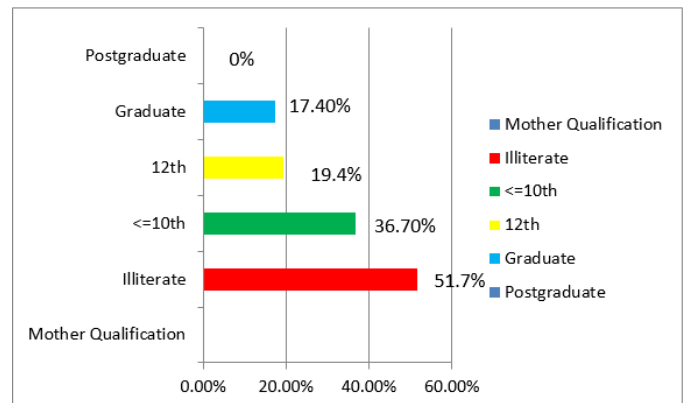
Data analysis:

Data were analysed using IBM Statistics package (SPSS 20). Data were summarized using descriptive statistics of mean, standard deviation, frequency and percentage. Inferential statistics of Chi Square test was used to determine associations among socio-demographic profile, birth weight, birth asphyxia, delayed cry, Rh incompatibility and cerebral palsy.

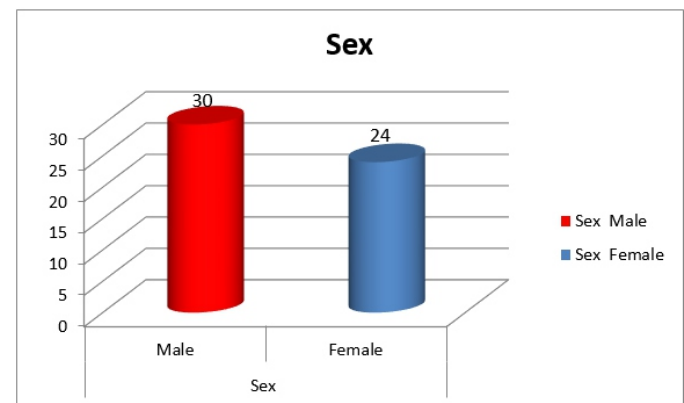
Result:

The mean age of the respondents in this study was 4.51 ± 1.70 years. The study recruited higher prevalence 27.0% of CP with prematurity and low birth weight and low physical therapy awareness (42.6%). 80.0% had reported delayed cry and 76.1% had birth asphyxia in influenced respondents. 38.0% had CP who had taken birth in government hospitals while 16.0% have in case of private hospitals. Respondents who had received treatment from physiotherapist were less than half, 20.3%. 2 cases of Autism, 2 cases of deaf and dumb, 3 cases of MR, 3 cases of western syndrome, and 7 cases of epilepsy was reported in the study. In illiterate Mother/father qualification group. There was significant association illiterate Mother/father qualification group and CP ($p = 0.000^{**}$). In ≤ 10 th Mother/father qualification group majority of 36.7% / 35.3% of respondent's diagnosis is CP. A majority of 72% of respondents, diagnosis is normal and 23.6 % respondent's, diagnosis is CP in consanguineous marriage group ($p = 0.000^{**}$). There was significant association between consanguineous marriage and CP. A majority of 80.0% of respondents, diagnosis is CP and 6.2 % respon-

dent's diagnosis is Normal in Delayed cry group ($p = 0.000^{**}$). A majority of 76.1% of respondents, diagnosis is CP and 9.0 % respondents diagnosis is Normal in Birth asphyxia group is ($p = 0.000^{**}$). There was significant association between birth asphyxia and CP. A majority of 51.2%/64.3% of respondents, diagnosis is CP. In case of birth weight group ≤ 1.86 , majority of 61.9% of respondent's diagnosis is CP. While in case of birth weight group ≥ 1.86 , majority of 85.4% of respondent's diagnosis is normal. ($p = 0.000$). There was significant association between birth weight and CP.



Bar Graph showing impact of mother qualification on cerebral palsy



Bar graph showing the sex ratio of CP cases

Discussion:

This study was conducted with the aim of describing existing demographic profile of patients and their families coming to the rehab centre for treatment. Out of total 307 children only 30% were females. Most common age of presentation was 2-9 years. 64.2% patients belonged to joint families and maximum 58 % belonged to upper middle class. Only 85% families had toilets inside their houses. It was found that consanguineous marriages were found in both Muslims

47.1% and Hindus 7.8% .10.4% fathers were professionals. Maximum mothers 89.6% were housewives despite of high level of education (graduation or above) in 61% (Jain. V. 2015). The study showed that maximum mother was not highly educated because of their poor financial condition. Mother's educational level were 7.7% under primary level, 28.3% primary completed, 22.3% J.S.C completed, 14.7% S.S.C completed, 8.7% H.S.C completed, 4.7% bachelor or above and 13.3% others. Another way father's educational level were completed 4.7% under primary, 27% primary, 13.7% J.S.C, 13% S.S.C, 11% H.S.C, 13% bachelor or above and 17.7% others. At the same time we saw another study in U.S.A mother's education was 6.7% H.S.C completed (Hwang et al., 2011). In Australia, one study found in mothers were completed 1.5% primary level, 37.2% high school level, 22.1% trade certification and 29% university. And father's education was 0.5% primary school, 39.2% high school, 29.4% trade certification, 23% university level completed (Davis et al., 2009). In Bangladesh, mother was not educated 38% found one study (Mobarak et al. 2000) Most of the mothers were housewives which was 96.3% whereas only 3.7% were service holder. In other hand in America, working caregiver was 38% and not working caregiver 62% (Allah et al. 2012).

Conclusion:

This study was aimed to find out the demography of the Cerebral Palsy patient. Socio-demographic profile of parents effect the health, severity of disease as well as prognosis or recovery of a CP child. Male are pre-dominantly more affected than female. It is difficult to stop the responsible cause of Cerebral Palsy. Cerebral Palsy management is a long time process so it is important to create awareness and receive proper step to reduce the risk of Cerebral Palsy. As developing medical profession, it is the duty of physiotherapist working in the Panipat city should make some strong evidence, which will improve strength and skill for the physiotherapist practice.

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