Depression and Quality Of Life In Mothers Of Children With Cerebral Palsy

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Abstracts: Introduction: Children with cerebral palsy suffer from several problems like impaired gross motor development, balance, locomotion, sensory integration dysfunction. So family especially the mothers undertake a lot of stresses & social and emotional difficulties.

Aims And Objective: To evaluate depression and quality of life in mothers of children with cerebral palsy.

Material And Methods: 30 mothers of children with CP coming to pediatric physiotherapy OPD of V.S. hospital assessed with BDI-II measuring severity of depression and SF-36 measuring Quality of life. Data was analyzed by calculating mean and standard deviation.

Results: 70% of mothers of children with CP suffering from mild to moderate level of depression and have affected QOL.

Conclusion: our study has showed prevalent depression and affected QOL in mothers of children with CP.

Key Words: cerebral palsy, depression, quality of life

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Introduction: Disability in a child affects not only the child’s life but also the family's life. (Beresford, 1994; Mc Conachie, 1991) Everyday problems in caring for a child with disabilities eg, sleep & behavioral difficulties has significant impact on maternal stress levels(Turner, 1993). Wallander & Varni (1992) has suggested that stress of dealing with a chronic illness is primary risk factor for development of psychological problems. These chronic illness includes mental retardation, cancer, cerebral palsy, thalassemia. Illness severity, presence of brain impairment, functional limitations imposed on child can lead to stress.

Box M. et al [2005] given proposed definition for CEREBRAL PALSY; that CP is defined as group of disorder of development of movement and posture causing activity limitation which is attributed to non progressive disturbance in fetal or infant brain. It is also accompanied by disturbance of Sensation, Cognition, Communication, Perception and or behavior, and/or Seizure disorder.

Birth of developmentally disabled child in family especially mother (as primary care giver in Indian population) get shock, experience denying, sense of responsibilities which make her to involve in compensated strategies which ranges from psychological stress to successful adaptation.

Keller et al [2005] showed disabilities of children have impact on disruption of routine and reduce social activity of mothers. Kaya k et al [2010] suggested deterioration of mental health in mothers of CP causing them to experience more back pain which cause deterioration of health related QOL. All these suggest possible presence of Depression and affected Quality of life. But these results cannot be generalized to our population because different population has different characteristic. So the need of our study is to find out prevalence of depression & affection in QOL in mothers of children suffering from CP.

Present study was done to evaluate depression and quality of life in mothers of children with cerebral palsy

Material and Methods: Present Descriptive analytic study was done at Paediatrics physiotherapy OPD of V. S. General Hospital, Ahmadabad. 30 mothers of children with CP was selected by convenient sampling technique after taking their inform consent

Exclusion criteria: Mothers of children with other neurological conditions like erb’s palsy, down syndrome, Autism etc.

Outcome measures: BDI-II was used to measure the level of depression and SF-36 was used to
measure the quality of life\(^{(9)}\). Data analysis done by calculating mean and standard deviation.

**Result:** Mean value for BDI-II which is 16.76±5.71. Table-1 is showing distribution of mothers according to level of depression in which 8(27%) mothers have minimal level of depression, 12(40%) mothers have mild level of depression, 9(30%) mothers have moderate level of depression and 1(3%) mothers have sever level of depression.

![Pie diagram of mothers according to level of depression](image)

**Table-1 Distribution of Mothers According To BDI-II**

<table>
<thead>
<tr>
<th>Level of Depression</th>
<th>No. of mothers</th>
<th>Percentage(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal (0-13)</td>
<td>8</td>
<td>26.66</td>
</tr>
<tr>
<td>Mild (14-19)</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Moderate (20-28)</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>Severe (29-63)</td>
<td>1</td>
<td>3.34</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Table-2 is showing mean and standard value for SF-36 subscales.

**TABLE-2 Mean & SD Values For SF-36 Subscales**

<table>
<thead>
<tr>
<th>SF-36 SUBSCALE</th>
<th>MEAN ± SD</th>
<th>NORMAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Functioning</td>
<td>78.78±13.49</td>
<td>84.2</td>
</tr>
<tr>
<td>Role Limitation Due To Physical Health</td>
<td>35±15.53</td>
<td>81.0</td>
</tr>
<tr>
<td>Role Limitation Due To Emotional Problems</td>
<td>31.11±12.17</td>
<td>81.3</td>
</tr>
<tr>
<td>Energy/ Fatigue</td>
<td>53±8.93</td>
<td>60.9</td>
</tr>
<tr>
<td>Emotional Well Being</td>
<td>61.2±9.19</td>
<td>74.7</td>
</tr>
<tr>
<td>Social Functioning</td>
<td>48.83±12.40</td>
<td>83.3</td>
</tr>
</tbody>
</table>

**Discussion:** Results of study suggestive of depression in mothers of children with CP & affected QOL in form of role limitation due to physical health & emotional problem and social functioning. Possible reasons for depression are limited social adaption, limited leisure time because of tight schedules for PT, OT, SLP or schooling. Most important thing in Indian family characteristic is that the father is playing role as an earner so all responsibility of caring for child is on mother.

Jeneen M. et al [2003] had suggested Perceived social support moderated the relationship between the child’s functional status and maternal depressive symptoms(11). Gonca Bumin et al.[2008] suggested mother with disabled children have anxiety & depression which affects mother’s QOL(12). Sajedi et al [2009] had studied 120 mothers of children with cerebral palsy and found higher prevalence and severe depression in mothers of CP. He had also found there is no statistically significant difference in depression score and severity of disability(13). Prudente CO. et al [2010] in his study of Relation between QOL of mother of children with CP and children’s motor functioning after 10 month of rehabilitation, suggested improved bodily pain domain in SF-36 with improvement in children’s gross motor level(14). Rashida B. et al[2010] shown mothers of children with CP suffers from more psychological distress than mothers of normal children(15) which is also supporting our study results.

**Conclusion:** Study showed that there is prevalent depression in mothers of children with CP and QOL especially role limitation due to physical health & emotional problems and social functioning are more affected than other components in our population. So different coping strategies and psycho-social programme must be designed and implicated to improve social and emotional well being. There is also need for formulation of parents support group.

Study has limited sample size, not excluded socio-economical condition of family and personal issues of mother, not evaluated psychological status of father and other family members.
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