ORIGINAL ARTICLES

THE EFFECT OF INDIVIDUAL COUNSELLING ON REDUCING STRESS LEVELS AMONG MOTHER WHO TAKES CARE CHILDREN WITH CEREBRAL PALSY.

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Abstract
Physical limitations and problems related to child development Cerebral Palsy be a stressor for mothers to in everyday life, the conditions trigger high levels of stress in childcare. This study aimed to describe stress in the parents of children with cerebral palsy and investigate the effect of individual counseling on reducing the stress level among mothers who take care of children with cerebral palsy. A quasi-experimental design, pre-test, and post-test without a control group was conducted of mother of 15 children aged 7 to 8 years takes by purposive sampling from the State Special School 1 Bantul Regency Yogyakarta. All respondents were mothers (100%), and 13.4 % reported very high-stress levels. There was no intervention effect on the parenting stress in the total sample, Paired t-test (p = 0.804, t = 0.253). The subscales Parental Distress and ‘Parent-Child Dysfunctional interaction’ contributed most to the Total Stress score. One-fifth of mother with a child with CP experienced high stress and typically stress percentile, and this may impact on their ability to parent successfully. There was a reduction in the stress level score of the mother who take care of cerebral palsy. However, it was not statistically significant (the p-value is 0.804), which shows that there is no influence of counseling using the cerebral palsy childcare module on stress level mothers who take care of cerebral palsy children. We need more study to prove the effectiveness of the program for cerebral palsy.

Keywords: cerebral palsy, counseling, childcare module cerebral palsy, parenting stress.

Introduction
Cerebral Palsy (CP) is the most physical disability among children. CP was led on spasticity, dystonia, muscle contractures, weakness and coordination difficulties that affect the ability to control movement (1). The cerebral palsy (CP) could impact on limitation of activity and non-progressive in the fetal brain. It also associated with disturbances of sensation, cognition, communication, perception, and behavior. The severity of the cerebral palsy symptoms depends on various etiologies in the prenatal and perinatal period (2).

Physical limitations and child development of Cerebral Palsy children influenced of mothers’ stress. The effective strategy to resolve the problem of the emotional, and spiritual problem-solving is needed (3). Families who have children with special needs have more burden and comprehensive responsibility to take care on their childcare. Nurses need to recognize, reflect,
and to facilitate of family in providing care for children (4) because mostly mother with cerebral palsy children have more parenting stress experienced (5). The majority of parents who care for Cerebral Palsy children have index of parenting stress about 26% (6). Children who suffer from cerebral palsy undergo motor impairment from mild to severe lead to stress (7). including fear, frustration, unsure, tired, drop, confused, protest, sad, crying, sad, morale declined, tension, sleep soundly, hair loss, and stomach pain (7). The number of parents who have encounter stress in Difficult Child subscale and a significant correlation between children who have a severe motor disorders with onset of parental stress (8). Mothers who have children with cerebral palsy face many Issues in their live like job loss, lack of concentration at work, loss of family joy and turmoil in the financial affairs of the family (10).

Professional Health Workers should pay attention to parents' stress who care for cerebral palsy children and provide resources to support these parents. Some recommended strategies to reduce parents' stress by strengthening the skills of parents in providing care or treatment to children (10), education to parents in the form of counseling on how to care of children with special needs such as cerebral palsy can reduce the burden on a mother's care (11), Nurses need to understand the mother’s child's experience in treating cerebral palsy, so Nurse can become more competent in treating cerebral palsy children (12),

In the previous study, the author was interviewed several mothers with cerebral palsy children in the region of Bantul; the women tell about their experiences in caring for their baby for 24 hours. There is a child who can sleep after 03.00 a.m; the child does not go to school, does not desire therapy; the child does not wish to dress up and so forth. Based on the background described above, the researchers interested in conducting researching on the Effects of Childcare Counseling at Module Cerebral Palsy Mothers Against Stress Levels In Parenting. This effort expects to strengthen the skills of parents in care children with cerebral palsy, which can decrease maternal stress in Cerebral childcare palsy. Similar studies in the literature review conducted by the researchers are still rare.

Objectives
The study aimed to examine the effect of counseling on reducing stress levels among mother who takes care of cerebral palsy.

Methods

Research design
A quasi-experimental design, pre-test, and post-test without a control group apply in this study. fifteen participant of Mother Who Take Care Cerebral Palsy were involved in this study, and if they were interested, the research team was informed. The sample In this study sampling technique was used to take the sample is purposive sampling. The participant provides detailed information explaining the aim of the study and checking the eligibility criteria. Mother was eligible for participation when they were: a mother who takes care of cerebral palsy, and they are willing to take part in this study, and they able to read, write and speak in Bahasa. The samples selected by using the purposive sampling technique. The exclusion criteria are mothers who refused to be the subject of the study, and mothers who have chronic or severe disease. Informed consent forms obtained from each participant. The Counselling intervention program consisted of two individual counseling and modules. The counselors discussed on information and treatment of children with cerebral palsy as well as strategy to reduce stress in taking care children with cerebral palsy (CP). Each counseling session took about 30 minutes and 2-week intervals for one to another session. The content of the first module which was handed
out to the participants after the first counselling session. The content of the counselling sessions is described in detail by Mansur et al. (13).

Data Collection

Parenting stress was measured by using the Parenting Stress Index-Short Form (15) The PSI-SF is a 36-item self-report questionnaire of parenting stress created by Dr.Richard Abidin. It was comprised of 36 items of questions and measured three of subscales included the Parental Distress (PD), Parent-Child Dysfunctional Interaction (PCDI) and Difficult Child (DC) subscales as well as a Total Stress scale (14). A Likert scale with five answer choices with SD (strongly disagree), D (disagree), NS (not sure), SA (strongly agree), A (agree) All items contained on the SPI-SF scale include in the favorable category. The validity of a test score of 0.322-0.828 and the reliability of test scores is 0.933 (15). Pre-tests in that they may measure before a counseling and then post-test one week to evaluate how well the counseling met those needs.

Percentile scores are more comfortable to interpret because they describe parent relative standing within all of the parents who were assessed during the development and testing of the PSI instrument. If a parent has a percentile score of 88 indicated of parents have lower levels of stress, and 12% of parents reported higher levels of stress based on answers to the same questions. The table below provides the cutoff scores that indicate clinical-level stress. Percentile scores that fall between 15 and 80 are considered typical. High-stress scores range from 81 to 84 (for P-CDI) and 89 (all other subscales). Clinically significant levels of stress that need additional follow up are above 85 (for P-CDI) and above 90 (for all other subscales) (14). We analyzed the characteristic data by using descriptive. To evaluate effect of counselling on deducing stress level among Mother who care children with cerebral palsy, a paired t-test was used with significance level was 5%.

Results

Characteristic of respondents

Table 1 described the characteristic of respondents. most respondents of respondents have graduated from secondary level (53.3%). Nearly one-hundred percent participants worked as a housewife (93.3%). About 60% of them have two children.

Table 1. Characteristic of participants (n = 15)

<table>
<thead>
<tr>
<th>variables</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The education level of parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>4</td>
<td>26.7</td>
</tr>
<tr>
<td>Secondary</td>
<td>8</td>
<td>53.3</td>
</tr>
<tr>
<td>High</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Employment status of parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>1</td>
<td>6.7</td>
</tr>
<tr>
<td>Housewife</td>
<td>14</td>
<td>93.3</td>
</tr>
<tr>
<td>Earnings (in rupiah)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1,125,000</td>
<td>11</td>
<td>73.3</td>
</tr>
<tr>
<td>1125000-3000000</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>&gt; 3,000,000</td>
<td>1</td>
<td>6.7</td>
</tr>
<tr>
<td>Number of children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 2</td>
<td>9</td>
<td>60</td>
</tr>
<tr>
<td>&gt; 2</td>
<td>6</td>
<td>40</td>
</tr>
</tbody>
</table>
Effect of individual counselling on reducing stress level

Table 2 showed the effect of individual counselling on reducing the stress level among mothers. The findings showed that there is not significant different between the individual counselling on reducing stress level among mother who take care children with cerebral palsy.

Table 2 Comparison of stress level among mother before and after program implementation

<table>
<thead>
<tr>
<th>PSI/SF Subscale</th>
<th>Mother of children with CP (n=15)</th>
<th>Descriptive Statistic</th>
<th>Typical Stress Percentiles</th>
<th>High-Stress Percentiles</th>
<th>Clinically Significant Stress Percentiles</th>
<th>Pre Mean</th>
<th>SD</th>
<th>Post Mean</th>
<th>SD</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Distress</td>
<td>n=12</td>
<td>% 80</td>
<td>% 1</td>
<td>% 13,3</td>
<td>Mean 27.8 SD 6.76 Mean 29.3 SD 6.34</td>
<td>-1.716</td>
<td>0.108</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCDI</td>
<td>n=12</td>
<td>% 80</td>
<td>% 1</td>
<td>% 13,3</td>
<td>Mean 30.73 SD 3.78 Mean 29.20 SD 4.85</td>
<td>1.608</td>
<td>0.131</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficult Child</td>
<td>n=12</td>
<td>% 80</td>
<td>% 1</td>
<td>% 13,3</td>
<td>Mean 27.73 SD 5.2 Mean 27.27 SD 5.20</td>
<td>0.594</td>
<td>0.562</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSS</td>
<td>n=13</td>
<td>% 86,7</td>
<td>% 1</td>
<td>% 6,7</td>
<td>Mean 86.27 SD 11.91 Mean 85.80 SD 13.61</td>
<td>0.253</td>
<td>0.804</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

Parental stress in mothers of children with cerebral palsy Measure with Parenting Stress Index (PSI) Questionnaire and For the interpretation use percentile (or %ile) to provides the cutoff scores that indicate clinical-level stress. Mother 80-86.7 % reported lower levels of stress, and 6.7-13.3 % of parents reported high-stress percentile or clinically significant stress. This resulting study is very different from previous studies from the park (2012) that said of Parents who have Cerebral Palsy Children; they have experienced high levels of parenting stress(5). Our findings are particularly crucial for health care providers involved in the management of young children with CP. In our study, 13.4 % of mother had high and clinically significant parenting stress – defined here as a TSS of 106 or more and equivalent to the 81 th percentile in a general population sample. This level of stress is clinically significant and requires support and intervention from professional services (14).

The subscale of Parental Distress (PD) describes the feeling of stress experienced by parents in finding a solution for the problem itself, which directly links to the role of parents in childcare. The "parental distress" subscale, which assesses how the needs of the children cause distress and restrict the social participation of the mothers, the extent to which parents feel competent, restricted, conflicted, supported, and depressed in their role as a parent. The stress level is related to the individual characteristics of the disorder. Parents are less confident about to with concerning the expectations of child development and child management skills. This lack of confidence may reflect in ambivalence about his management style. The problem is that the consistency of approach towards children tends to be there(13). The increased of parental distress scores from the mother on aspects of Parental Distress (PD), probably caused by an increase in the awareness of mothers of one of the points in the counseling of "Prognosis Cerebral Palsy" and "Hope Cerebral Palsy Children's to Walk" in which mothers undoubtedly realize the prognosis of her
condition in future and expectation of children affected by cerebral palsy can walk (13). Another factor contributing to the increase is the Stress of Life, based on the demographic data; the majority of participants (73.3%) have to earn below the district minimum wages of Bantul Regency. Families of children with cerebral palsy have lower income than families of children without disabilities (17,18).

The subscale of Difficult Child (DC), it is describe how a parent (mother) perceives their child to be, whether the child is easy or difficult to take care of and children who are often involved in the care or even makes it more difficult because the parents feel that the child has many characteristics of disruptive behavior(19). The mean score on this scale indicates scores sub stagnant or almost no change. The shape of the stress felt by mothers who have children Cerebral Palsy is fear, frustration, unsure, tired, drop, confused, protest, sad, crying, sad, morale declined, tension, sleep soundly, hair loss, and stomach pain, The results showed number of parents who are experiencing stress in Difficult Child (DC) subscale and a significant correlation between children who have a severe motor disorders with onset of stress parents.(20).

The majority of respondents were experiencing the typical stress in childcare Cerebral Palsy. The third subscale, after that The Parent-Child Dysfunctional Interaction (P-CDI) On this aspect explains interactions between parents and children that are not functioning focused on strengthening the level of the child's parents and the level of expectation parent to child. Based on P-CDI scores mean there is little shift of 30.73 into 29.2, change one of these subscales have no impact on the total stress scores. Stiffness in the arms and legs of children cerebral palsy, the nature of children irritable and low self-esteem, the limiting factor in parenting parents of cerebral palsy in developing self-reliance (21) Maternal stress in childcare Cerebral Palsy does not change between before, and after intervention counseling, the condition may be the child has been in therapy with the potential to improve child development. Children who have undergone the routine clinical assessment can increase the positive perception of parents(22), Parents who always to include the child in therapy can interact with the therapist or fellow parents in similar circumstances so that it can make parents have a positive perception of the child's future. (23)

From the table 1, our respondent 100% are Javanese ethnic. Javanese people have a Phylosofi of Javanese human life has an attitude live in rapture, nrima (accepting), and patience (16) Javanese people are also encouraged to learn attitudes such as nrimo (accepting), sincere, legowo (giving up) (17). Nrimo ing Pandum (Acceptance), culture can increase its acceptance of its weaknesses and strengths (18). In accepting the reality of Javanese life, it is not easy to despair or stop hoping for something (19). The majority of respondent Profession/Work are Housewives. There is a study that explains housewife have lower stress levels (mean 25.85), compared to working mothers (mean 35.88) (20). A mother is experiencing several stressors from outside the parent-child relationship. These stressors increase the burden of the parents and are significant and should be considered in any treatment plan(19). Low income, lack of paid work, and low social participation have been associated with increased stress and poorer psychological health in the parents (24,25). Considering that paid work and leisure activities contribute to reducing maternal stress, the involvement of mothers in these activities is justified(6). For some families, the birth of a child with CP may bring them closer together(17,26) and may not lead to increased or excessive stress. Indeed, more than half of our sample had TSS in the Typically Stress
Percentile, Research conducted by Valentina (2014) she states that considered from the perspective of the problem, parents (mother) of Cerebral Palsy stress initially, but later began to accept the state of his disability; and; continue to provide care and nurture of the child (17)

**Conclusion**

The conclusion of this study showed that there is no positive effect of counseling on reducing the stress level of mothers who are taking care of children with cerebral palsy. We recommend the interventions provided with/for the subject of the research should emphasize the technical and cognitive aspects in caring for and educating children Cerebral Palsy.

**Research ethics and funding**

This study has been passed from the research ethics committee from the Polytechnic of Health Ministry of Health (Ministry of Health) Yogyakarta with number LB.01.01 / KE-01 / XXXVI / 784/2018. The study was grant by the DIPA Kopertis Region V 2018 No. 1496/K5/KM/2018 However; I declare the is no conflict of interest for writing and publishing this study

**References**