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# Android-based Family Counseling Training for Parents of Children with Cerebral Palsy

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## Abstract

Parents' behavioral disorders toward children with cerebral palsy are caused by the wrong perception and the lack of knowledge about cerebral palsy. The initial process of caring for children with cerebral palsy is empowering. Empowering is given to the parents through counseling to help parents accept their children's condition and implant a positive attitude toward their children. Family counseling provides knowledge and skills for parents with cerebral palsy. The counseling is conducted through an android-based application that can be easily accessed by parents to receive knowledge on how to nurture children with cerebral palsy. Thus, this research aims (1) to give knowledge and teach skills on raising children with cerebral palsy using an android-based application, (2) to motivate parents, and (3) to provide guidance and counseling to solve parenting problems. Analysis was conducted using Wilcoxon signed rank technique to identify the differences between pretest and posttest. The test resulted in a *Zscore* of -3.417 with Asymp. Sig. (2-tailed) 0,001. The probability value is  $\alpha = 0,05$ , thus the probability of *Zscore* is less than the predetermined probability ( $0,001 < 0,05$ ). Findings of the research showed that android-based training in family counseling has influenced the understanding and skills of parents of children with cerebral palsy in Payakumbuh

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## INTRODUCTION

Understanding your child is the main part of parenting. The way parents understand their children corresponds with the way they educate them. Children who suffer from parents' negative treatment will have difficulties in achievement, thus hindering their development (Desiningrum, 2012). Parents are not obliged to shape or transform their children the way they want to. However, they must be responsible for supporting their children's natural development (Tjandrajani et al., 2012). One of the parent's functions in the family is parenting. Parenting styles are influenced by

their culture and environment. The way they take care, help, and lead their children depends on their parenting model (Hasanah, Wibowo, Humaedi, 2016). Parenting is parent-child interactions when raising their child. Parenting means parents educate, lead, discipline, and protect their children until they reach the maturity phase and live in accordance to societal norms (Rachmawati & Masykur, 2016). Some parents think a child born with cerebral palsy would overburden them due to their condition and as the consequence; parents take care of their children with inappropriate care.

*Cerebral palsy is a non-progressive but permanent neuromuscular disorder caused by brain damage during prenatal, perinatal, and postnatal, which affects motor function and posture balance. Having too little control of movements and postural instability are factors that can hinder a child from participating in school activities, at home, or during playtime* (Triyulianti et al., 2020).

Parents are responsible as the main educator for their children's development even though their condition is not what they expected it to be. Some parents may suffer from shock and denial when they have child with cerebral palsy. For this reason, the parents need a needs assessment. According to (Nurhastuti et al., 2019) needs assessment analysis is a positive and constructive way for transformation. Needs analysis is a process of identifying discrepancies and prioritizing the discrepancy to be solved (Rachmawati & Masykur, 2016). Needs analysis is expected to help parents educate their children with cerebral palsy to live independently and get prepared to engage in society. One of the practices in needs analysis is family counseling. It is necessary that the family counseling conducted to understand the parents' needs be appropriate to the background of the family, their culture, and their socioeconomic conditions. One of parents' obligations to their children is to respect them (Rahma & Indrawati, 2017).

Family counseling functions to help parents to be persistent in teaching their children to speak, training them to be confident so that they can live independently when they grow up. Counseling and guidance services will help family solve their problems. It also provides guidance for the head of the family and the members of the family to create an intact and harmonious family relationship, encourage productivity, and help to adjust to family norms and actively participate to build a happy family (Nurhastuti, 2018).

Family counseling is an attempt to help the family of children with cerebral palsy solves problems they encounter during parenting. It is provided for every individual in the family through the family system (fix communication issues) to solve the problems under the consent and with the love of every individual in the family (Sumarwiyah et al., 2015). Counseling and guidance can be provided through education and training. Training is a learning process designed to transform one's performance at work (Hickerson & Middleton, 2011). It is usually related to a preparation of a performance, duty, and role in an activity setting (Saepudin & Sukarya, 2019). Training in family counseling becomes important for parents of children with cerebral palsy to help them solve problems that emerge in the family, especially those related to parenting problems.

Family counseling will be easy when conducted through android-based media. Gadget is a product of knowledge and technology that influences humans in their thought and attitude (Mufida et al., 2018). Smartphone, notebook, tablet, and other forms of technology can now be easily accessed. They are no longer a tertiary needs and people find them helpful for everyday activities.

Family counseling using an android application is designed to help parents educate and observe their children's development through mobile software. This application is suitable for

parents who are busy with their work and those parents who want to learn the correct methods of handling a child with cerebral palsy.

## METHODS

The method used for this research was training in the form of observation and survey, collecting materials, lectures, and homework. The subjects of the research were parents of children with cerebral palsy in Payakumbuh, West Sumatra. Evaluation was conducted through pre-test and post-test.

## RESULT AND DISCUSSION

*Wilcoxon signed test resulted in  $Z_{score}$  of -3.417 with Asymp. Sig. (2- tailed) 0,001. The probability value is  $\alpha = 0,05$ , thus the probability of  $Z_{score}$  is less than predetermined probability ( $0,001 < 0,05$ ). The result shows that the android-based family counseling training has influenced the understanding and nurturing skills of parents of children with cerebral palsy in Payakumbuh.*

Cerebral palsy in a child is caused by damage during prenatal and perinatal (Badali, 2010). Another cause of cerebral palsy is prolonged labor and difficult delivery that need an assisted delivery with a risky tool that may injure the child's head (Bajraszewski, 2009). Rini (2016) explained that the lack of oxygen to the brain during prolonged labor occurs when the umbilical cord got tangled and causes the infant to have difficulty in breathing. The infant born with such a condition is at risk of premature birth (weight less than 2 kg) and suffers from meningitis, jaundice, malaria, and a high fever that can also lead to cerebral palsy. The brain is divided into several parts that have different functions. The cerebrum controls thoughts and compromises the occipital lobe which controls vision and the frontal lobe controls movement.

Family counseling is an interactive process to help a family attain homeostasis (maintaining balance in the family relationship) for a comfortable family (Lubis, 2013). Gladding (2015) also asserted that family therapy or family counseling is an attempt provided for every individual in the family through the family system (fix communication issues) to solve the problems under the consent and with the love of every individual in the family

Family counseling aims to help clients (the members of the family) to achieve a sense of individuality that separates from the system of the family (Latipun, 2011). Besides, family counseling can help change the structure of the family, reorganizing it to build unity and solve disputes among the members of the family. Family counseling holds two purposes namely general purpose and specific purpose (Lubis, 2013). The general purposes of family counseling are:

- a. to help the family learn how to emotionally appreciate each other because the dynamic of a family is intertwined in the family itself.
- b. to help the members of the family realize the fact that when problems happened to one of the members, it will affect the others' perception and expectations and the interaction among the members of the family.
- c. to achieve balance in the family.
- d. to develop appreciation for parental relationship.

Whereas the specific purposes of family counseling are:

- a. to support the idiosyncratic behavior or uniqueness of other family members.

- b. to develop unity in the family, like helping the members of the family when feeling frustrated, facing conflict, and feeling down due to either factor inside the family system or outside the family system.
- c. to develop the motivation and potential of each member of the family by giving support, motivation, and reminder.
- d. to develop realistic success that befitted other members of the family.

Parents of children with cerebral palsy that have little knowledge of their children's condition can impact negatively to their children's potential and talent. It will later lead to disharmony in the family. Therefore, family counseling is necessary to help them solve the problems they face when raising and educating their children. The purpose is to transform the family to have a positive attitude toward the problems and help them to prevent the problems through family system (Siregar, 2015)

## CONCLUSIONS

Family counseling will be easy when conducted through an android-based media. Smartphone, notebook, tablet and other forms of technology can now be easily accessed. They are no longer a tertiary needs and people find them helpful for everyday activities. Family counseling using android application is designed to help parents educate and observe their children's development through mobile software. This application is suitable for parents who are busy with their work and those parents who want to learn the correct methods of nurturing a child with cerebral palsy. Not only do the parents receive the knowledge but they also receive motivation so that every problem that occurs when raising children with cerebral palsy can be solved effectively and efficiently.

## CONFLICTS OF INTEREST STATEMENT

The authors declare no conflicts of interest. All co-authors have reviewed and approved the manuscript's content, and there are no financial interests to disclose. We affirm that the submission is original and not currently being reviewed by any other publication.

## AUTHOR CONTRIBUTIONS

Nurhastuti conceived of the presented idea. Nurhastuti, Tasha Dwilamiisa Putri, and Jehan Nabela Oktaviani developed the theory and design the methodology. Nurhastuti collected data in the field. Jehan Nabela Oktaviani conducted the application of statistical to analyze study data. Tasha Dwilamiisa Putri contributed in creation of the published work by those from the original research group, specifically critical review, revision-including pre- or post- publication stages. All authors discussed the results and contributed to the final manuscript.

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