



The Relationship of Physiotherapy Services During the Covid-19 Pandemic with Children's Weight and Motor Intelligence at the Growth and Building Clinic of PNTC Surakarta

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Abstract. The background of the growth and development of children in Indonesia still needs serious attention, the rate of growth and development delays is still quite high, around 5–10% experiencing general developmental delays. Two out of 1000 babies have motor development disorders and 3 to 6 out of 1000 babies also have hearing loss and one in 100 children have less intelligence than speech delays. It is estimated that the number of children will continue to increase, therefore health services must be improved. The purpose of this study was to determine the effect of physiotherapy services during the COVID-19 pandemic on the growth and development of children at the Surakarta PNTC growth and development clinic. The research method uses descriptive quantitative with case studies. The type of research used is descriptive quantitative research with an explanatory approach. Outcomes: Sinta accredited national journals and articles in international proceedings. TKT: 2 regarding physiotherapy services during the covid-19 pandemic with children's weight and motor intelligence.

Keywords: physiotherapy services during the covid-19 pandemic · weight loss · children's motor intelligence

1 Introduction

Development in the health sector aims to increase awareness, willingness and ability to live healthy for everyone in order to realize a high degree of public health [1]. The Covid-19 pandemic has not only affected the lives of adults but also children. If left unchecked, it is feared that it will have an impact on children's growth and development both physically and mentally. Physical development is closely related to the motoric development of children, if there are physical disturbances or obstacles in development, then motor

skills will also be hampered. Children's health needs attention as the foundation for child development. In addition, not all children are born with perfection or in normal circumstances [2].

Sometimes there are those who have deficiencies such as having problems with growth and development, early detection and intervention in populations at risk of developmental delays can be carried out together with the aim of increasing functional capacity. Some areas of adaptive and cognitive development are complex and interconnected with one another [3].

According to the Ministry of Health 2020 quoted by IAKMI (2020), stated that the impact of the Covid-19 pandemic or during the pandemic 83.9% of basic health services could not run optimally, especially in health agencies. Many services for mothers and children do not get adequate antenatal care, this situation occurs in almost all parts of Indonesia. This has a very large impact on public health services, especially in maternal and child services. The role of parents is very important during the COVID-19 pandemic to monitor the health and development of children because more time is spent with children at home. Parents as the closest people to children need to be equipped with knowledge and information to maintain children's health so that they are physically healthy, so that children's growth and development during the COVID-19 pandemic run normally without interruption [2].

WHO data in 2018, the incidence of child development disorders throughout the world is still relatively high, namely in the United States ranging from 12–16%, Thailand 24%, Argentina 22% and Indonesia 13–18% (Hidayat, 2010). According to Riskesdes (2013) the prevalence of child development disorders in Indonesia tends to increase in the last 6 years. The prevalence of developmental deviations in children under 5 years of age in Indonesia reported by WHO in 2016 was 7,512.6 per 100,000 population (7.51%) [4, 5].

2 Method

This research uses quantitative descriptive with case studies. The type of research used is descriptive quantitative research. The design in this study is a case study, namely exploring a case, in detail, passing data that has not, involving various sources of information (for example, observations, interviews, documents and reports) (Ilhamsyah, 2015).

The research location is at the PNTC Surakarta Growth and Development Clinic. The research approach used is explanatory research. The population in this study were all Child Growth and Development patients at the Surakarta PNTC Growth and Development Clinic who underwent therapy during January 2022 – March 2022. To facilitate the determination of the sample, the researchers used probability sampling technique. Operational definition of research 1) Physiotherapy services, namely health services provided during the COVID-19 pandemic. Measuring method: routine (2 x in 1 month) and not routine (sometimes check sometimes not or 1 x in 1 month), interval scale. 2) Growth and development: monitoring BB/U while the child's motor development or intelligence. Measuring method: growth (normal, low weight and obesity), KPSP (appropriate, doubtful and deviation). This study used a questionnaire containing the characteristics of parents and a table for monitoring growth (W/U) and child development (KPSP) during a visit to the Surakarta PNTC Growth and Development Clinic. Prior

to data collection, the researchers conducted an ethical clearance test at the Aisyiyah University KEP Yogyakarta with No. 2038/KEP-UNISA/IV/2022.

The data collection steps carried out in this study began with preparing research instruments in the form of data collection formats and master tables, then the researchers identified the child's medical record number at the Surakarta PNTC Growth and Development Clinic that had previously carried out licensing and ethical clearance. Data from medical records were recorded in a data collection format, and entered into a master table through computer software. After the data is complete and correct, the researcher performs statistical data processing with the help of a computer program and then presents the data in the form of tables and research reports. Univariate analysis was used to view the description of the frequency distribution and the percentage of each variable studied, both independent and dependent variables. Bivariate analysis using statistical test "chi square" (chi square).

3 Results and Discussion

The general description of the respondents are all children aged 1–5 years as many as 30 children at the Growth and Development Clinic of PNTC Surakarta. The results of the survey used a questionnaire about the stages of physiotherapy services during the COVID-19 pandemic with children's weight and motor intelligence at the Surakarta PNTC growth and development clinic. Physiotherapy services to respondents with 30 children at the PNCT growth and development clinic, 40% do it regularly and 60% do not routinely visit the clinic, while the survey results are based on questionnaires to research respondents about the weight of the majority of children in the weight range of 10–16 kg (23%) and the majority of motor intelligence (11%) deviate. According to the respondent's parents have understood the stage of growth (weight) and development (motor intelligence) of the child, but based on the results of the questionnaire assessment of the parents' understanding of the stage of development of the child's motor intelligence, only 60% of parents understand this stage while the respondent group of 40% still requires counseling and routine services 2 times a week with the assistance of officers. From this description there is a very close relationship between growth (weight) and development (motor intelligence) for children. The results of this study are in line with previous research which showed that there was an effect of early physiotherapy services that had an impact on children's growth and development [7].

Physiotherapy services contribute to gross and fine motor development in children [8, 9]. Physiotherapy services that are carried out from the start improve brain connections during a critical period of central nervous system development in children [10]. These services usually involve parents and aim to improve parent-child relationships, improve parental coping and the home environment through parental education, and promote stimulation and autonomy in children, support psychomotor development, carry out early, comprehensive, and multidisciplinary rehabilitation and use proper care [11, 12].

Growth contains more quantitative elements, namely the addition of physical size to the elements of the body [6]. The child becomes physically bigger and the organs of the body become longer, larger, and heavier. This growth has implications for the development of organs that are experiencing growth so that there is an increase in functions that

are qualitative in nature to the child's mentality. Balanced growth and development leads children to the next period, namely adolescence, puberty, adulthood and so on [14].

Motor development disorders can be caused by lack of stimulation that is not appropriate for the child's age. Stimulation is an activity that stimulates children's basic abilities in optimizing their growth and development. This stimulation can be given by the family because it does not require special techniques to do it. Stimulation should be done regularly and accompanied by mutual communication with the child. These results support previous data conducted by Kholifah in Surabaya in 2014, that health workers who carry out direct promotions to mothers in Surabaya can reduce the rate of child development delays. This is presumably because the stimulation from the mother as the closest person to the child fulfills the principle of stimulation so that the stimulation given to the child is directed and can support the child's development optimally [13].

The COVID-19 pandemic continues to have a negative impact on various aspects of children's health and well-being. It is important for midwives to realize that this COVID-19 can take steps to help clients in the future. As the virus continues to attack, further research is needed to identify and evaluate specific challenges and concerns related to COVID that adversely affect growth and development in children [15]. The SARS COVID-19 pandemic with repeated waves has a serious impact on children, especially weight and motor intelligence development [16].

Early assessment is very important and useful in early identification of the risk of delayed or impaired motor intelligence in children [17]. Children born prematurely or with low birth weight show early cognitive and motor development that will predict later developmental and behavioral outcomes. Children who have a history of low birth weight usually show delayed growth and motor development compared to babies born at term [18–21]. Parents who have a history of premature babies usually experience a level of anxiety about the growth and development of their children [22, 23]. Therefore, the quality of child care and family support can have an effect [8, 24].

4 Conclusion

Based on the results of the study and the description above, it can be concluded that there is a relationship between physiotherapy services during the covid-19 pandemic with children's weight and motor intelligence at the Surakarta PNCT growth and development clinic.

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