

The Effectiveness of using Pre-Screening Questionnaires to Improve Mother's Knowledge and Skills in Implementing Early Detection of Early Childhood Development

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Abstract

Early childhood development can be detected through developmental pre-screening, with the aim of detecting early developmental disorders. The research objective was to analyze the effectiveness of the use of pre-screening questionnaires to improve the knowledge and skills of mothers in detecting early childhood development. The design of this study was a pre test - post test, involving 60 mothers of children under five. Observations were made before and after the intervention. Data were analyzed using the Wilcoxon test. The results showed that there was an increase in maternal knowledge and skills after being given the intervention. Thus, it can be concluded that the use of developmental pre-screening questionnaires is effective in increasing the knowledge and skills of mothers under five in early detection of child development.

Keywords: *Child Development, Child Development Pre-Screening Questionnaire, Knowledge, Skills.*

Introduction

Long-term national development in Indonesia focuses on the quality of human resources who are intelligent, resilient and productive. This goal can be achieved through efforts to improve children's growth and development optimally, according to their developmental stage. Approximately 0.4 million (16%) of Indonesian toddlers have developmental disorders, both fine motor development, gross motor skills, hearing, intelligence and speech. About 85,779 (62.0%) preschool-aged children have developmental disorders [1].

Parents, especially mothers, are the closest people in monitoring the growth and development of the child, and they provide care from infancy. Therefore, mothers should be equipped with knowledge and skills about early detection of child development using a pre-screening questionnaire. The quality of growth and development of children depends on the care of the family, especially parents. Early detection is important in order to find impaired growth and development of children.

Disorders of growth and development that are detected earlier, will find invaluable interventions in order to prevent permanent disability [2]. The use of pre-screening questionnaires can help monitor developmental disorders that can occur in children, both gross motor, fine motor skills, language and socialization, so that if there is a developmental disorder, intervention can be done early, so that the child can grow and develop optimally as expected. The earlier early detection of child development is carried out, the greater the benefits will be obtained.

The knowledge and skills given to parents are very useful in ensuring the continuity of growth and development of children, because parents are always near the children. The results of previous studies indicate that early stimulation by mothers and optimally affect children's motor development significantly [3]. This study aims to analyze the effectiveness of using a pre-screening questionnaire to increase knowledge and

skills in the implementation of early detection of early childhood development.

Methods

This pre-experimental study used a one group pretest-posttest design without a control group. This research was conducted in the working area of the Moncongloe Community Health Center, Maros Regency, South Sulawesi, Indonesia from April to November 2019. The populations of this study were all mothers who had early childhood in the Moncongloe Health Center area, Maros Regency. The sample size was 60 people who were selected by purposive sampling technique. Data on the level of knowledge were collected through filling out a questionnaire, while data on the ability to

detect early childhood development were collected through observation using a pre-screening questionnaire guide for child development. The data that had been collected was categorical data so that it is analyzed descriptively in the form of frequency and percentage [4], then hypothesis testing was carried out using the Wilcoxon test to measure the mean increase in knowledge and skills after using the development pre-screening questionnaire guide.

Results

Table 1 shows the characteristics of mother respondents, consisting of age and education. Table 1 shows that the highest age group was 26-35 years (61.7%) and the highest level of education was junior high school (36.7%).

Table 1: Distribution of mother's age and education

Characteristic	Category	Frequency	Percentage
Age	18-25 years	5	8.3
	26-35 years	37	61.7
	36-45 years	15	25.0
	>45 years	3	5.0
Education	Elementary school	21	35.0
	Junior high school	22	36.7
	Senior high school	17	28.3
Jumlah		60	100.0

Table 2: Distribution of knowledge before and after intervention

Knowledge	Before intervention		After intervention	
	Frequency	Percentage	Frequency	Percentage
Good	22	36.7	54	90.0
Less	38	63.3	6	10.0

Table 2 shows that before the intervention, the level of knowledge in the good category was only 36.7%, while after the intervention it increased to 90.0%

Table 3: Distribution of skills before and after intervention

Skills	Before intervention		After intervention	
	Frequency	Percentage	Frequency	Percentage
Good	3	5.0	53	88.3
Less	57	95.0	7	11.7

Table 3 shows that before the intervention, skills in the good category was only 5.0%, while after the intervention it increased to 88.3%

Table 4: The results of hypothesis testing

	Knowledge			Skills		
	Pre	Post	p-value	Pre	Post	p-value
Mean	7.48	13.50	0.000	9.42	20.15	0.000
SD	2.10	1.99		1.23	3.02	
Median	8.00	14.00		9.00	19.00	
Min	3.00	8.00		8.00	15.00	
Max	10.00	15.00		12.00	24.00	

Table 4 shows that there was a significant difference in knowledge and skills between before and after the intervention (p-value <0.05). In this case there was an increase in knowledge and skills after the intervention using a pre-screening questionnaire guide for child development

Discussion

The results showed an increase in knowledge after intervention using a pre-screening

questionnaire guide for child development. This is in line with the research conducted by Nurhasanah & Astuti [5] who reported that 89% of health cadres had good knowledge and all were able to detect early development of children using a pre-development screening questionnaire.

Prasida & Mayangsari [6] also showed the same results that counseling on how to detect children's growth and development using a developmental pre-screening questionnaire could increase the knowledge of PAUD teachers. Knowledge is the result of sensing a certain object, such as seeing, hearing, feeling and feeling, besides that knowledge is also obtained from one's experience and learning process [7].

A person's knowledge is influenced by the information they get from the internet, radio, television, family, friends, books and magazines. Thus, it is likely that the respondent's initial knowledge was obtained from learning experiences and information obtained from other sources.

Knowledge and skills possessed by a mother about how to detect early child development using a pre-screening questionnaire will be very useful to find out early if her child has developmental delays, such as development of speech and language, gross motor skills, fine motor skills, adaptation and independence.

If the development of their children is monitored early, then if problems are found, early intervention can be carried out as well. Monitoring child development will get good results if it is supported by the knowledge and skills of mothers on how to detect early development.

The quality of child development is determined by the care of the family, especially mothers who play a very important role in stimulating and early detection of their child's development. Thus, mothers need to be equipped with adequate knowledge about child development. The results showed an increase in knowledge after intervention using a pre-screening questionnaire guide for child development. This is in line with research conducted by Muflihah [8] who reported that there has been an increase in the knowledge and skills of mothers to stimulate growth and

development of children after attending training. This finding is also in line with the results of research conducted by Kartikawati [9] that there was an increase in knowledge and skills in the intervention group who attended the mother-of-five class compared to the control group. Skills are an action that embodies attitudes that require supporting factors, including facilities and support from other parties [7]. The skills of mothers in carrying out early detection of child development using a pre-screening questionnaire will be very valuable provisions in caring for and raising their children.

Conclusion

Based on the results of the study, it was concluded that the use of a pre-screening questionnaire for child development was effective in increasing the knowledge and skills of mothers in early detection of child development.

References

1. Widati Tri (2012) Improving Children's Fine Motor Skills Through Paper Folding Methods in Group B Children, TK-ABA Gani Socokangsi Jatinom Klaten Academic Year 2011/2012(Meningkatkan Kemampuan Motorik Halus Anak Melalui Metode Melipat Kertas pada Anak Kelompok B, TK-ABA Gani Socokangsi Jatinom Klaten Tahun Ajaran 2011/2012). Surakarta: FP-UMS.
2. Destiana R, Yani ER, Yanuarini TA (2017) Mother's Ability to Stimulate for the Development of Infants aged 3-6 Months in the Work Area of Puhjark Health Center (Kemampuan Ibu Melakukan Stimulasi Untuk Perkembangan Bayi Usia 3-6 Bulan Di Wilayah Kerja Puskesmas Puhjark). Jurnal Ilmu Kesehatan, 6(1):56-65.
3. Nur Khalifah S (2014) Infant Gross Motor Development through Mother Stimulation (Perkembangan Motorik Kasar Bayi Melalui Stimulasi Ibu). Jurnal Sumber Daya Manusia Kesehatan, 1(1).
4. Nugroho HSW, Badi'ah A (2019) Descriptive Data Analysis for Interval or Ratio Scale Data. Aloha International Journal of Multidisciplinary Advancement, 1(5):117-118.

5. Nurhasanah R, Astuti I (2017) Training on Early Detection of Child Development with a Developmental Pre-Screening Questionnaire (KPSP) in Sukamukti Village, Majalaya District, Bandung Regency (Pelatihan Deteksi Dini Tumbuh Kembang Anak Dengan Kuesioner Pra Skrining Perkembangan (KPSP) Desa Sukamukti Kecamatan Majalaya Kabupaten Bandung). Cimahi: Prosiding SNIJA. 32-33.
6. Prasida DW, Maftuchah, Mayangsari D (2015) The Influence of Education about KPSP on Teacher Knowledge in PAUD Taman Belia Semarang (Pengaruh Penyuluhan Tentang KPSP terhadap Pengetahuan Guru di PAUD Taman Belia Semarang). The 2nduniversity Research Coloquium, 570-576.
7. Notoatmodjo S (2005) Health Promotion (Promosi Kesehatan). Jakarta: Rineka Cipta.
8. Mufliah IS (2015) The effectiveness of early detection training for growth and development according to children's age stages on the knowledge and skills of mothers in stimulating toddler development (Efektifitas Pelatihan Deteksi Dini Tumbuh Kembang Sesuai Tahapan Usia Anak Terhadap Pengetahuan Dan Keterampilan Ibu Dalam Menstimulasi Tumbuh Kembang Balita). MEDISAINS: Jurnal Ilmiah Ilmu-ilmu Kesehatan, 13(1):20-28.
9. Kartikawati S, Sutedja E, Dzulfikar D (2014) The Influence of Toddler Mother Class on Increasing Knowledge, Attitudes, and Skills of Toddler Mother in Caring for Toddlers in the Work Area of the Sukarasa Health Center, Bandung City (Pengaruh Kelas Ibu Balita Terhadap Peningkatan Pengetahuan, Sikap, dan Keterampilan Ibu Balita dalam Merawat Balita di Wilayah Kerja Puskesmas Sukarasa Kota Bandung). Bhakti Kencana Medika, 4(1):26-32.