THE QUALITY OF GROWTH MONITORING IN CHILDREN BY INTEGRATED HEALTHCARE CENTER CADRES

Minarsih¹, Nita Evrianasari², Anggraini³

¹,²,³Midwifery DIV Study Program, Malahayati University
Corresponding email: nita.nuninosa@gmail.com

ABSTRACT

Background: Growth monitoring in children is a tool to determine the nutritional status of the children. The prevalence of underweight is 19.6% consisting of 5.7% of malnutrition and 13.9% undernourished. Many factors affect the growth monitoring in children at the integrated healthcare center level including the children who are weighed, the weighing equipment used, the way how to weigh, how to record the weighing results into the growth chart, how to interpret the weighing results, and actions that must be taken by cadres according to the weighing results.

Purpose: To determine the quality of growth monitoring in children by integrated healthcare center cadres at the Sukaraja Tiga public health center, Marga Tiga District, East Lampung Regency.

Methods: This study is a quantitative study with a descriptive design. The population of this study were 160 integrated healthcare center cadres who are recorded as being in the work area of Sukaraja Tiga public health center and are from 32 integrated healthcare centers located in Sukaraja Tiga public health center area. The sample in this study was 160 cadres. The sampling technique used in this study was total sampling. The data analysis used univariate data analysis.

Results: This study showed that 100 (62.5%) respondents carried out the weighing well, 102 (63.8%) respondents recorded the results of weighing well, and 110 (68.8%) respondents poorly interpreted the results of growth monitoring in children.
Minarsih, Nita Evrianasari, Anggraini

Conclusion: The quality of monitoring the growth of children under five by posyandu cadres based on the way of interpreting the results of weighing to KMS, it was found that 110 (68.8%) respondents interpreted the results of monitoring the growth of children under five in a way that was not good.

Suggestion that Sukaraja Tiga public health center can provide more routine guidance such as conducting counseling about the growth chart and how to fill it out to improve cadres’ skills regarding growth monitoring in children.

Keywords: Weighing, Recording, Results Interpretation, Cadres

INTRODUCTION

Monitoring the growth of children under five is a tool to determine the nutritional status of children under five. The nutritional status of children under five is one indicator of the success of achieving the MDGs (East Lampung Health Office, 2013). Monitoring the growth of children under five is very important to detect growth faltering at an early stage. Children aged 12-59 months receive growth monitoring services every month, at least 8 times a year recorded in the KMS, or other record books (Ministry of Health, 2020).

The Posyandu program is carried out in each village by cadres who have been given knowledge and training by health workers. The purpose of using cadres as Posyandu implementers is to promote knowledge about health, especially child growth and development. In general, Posyandu activities include weighing toddlers and providing nutrition, so that the main target of Posyandu is more focused on the physical growth stage. There are many things that can affect the monitoring of under-five growth at the posyandu level, including: children under five who are weighed, the weighing equipment used, how to do the weighing, how to record the weighing results into the KMS, how to interpret the weighing results, and actions that must be taken by the child. Cadres according to the results of the weighing (Joni Iswanto, 2010).

Another posyandu cadre’s role is to invite or guide parents to recognize the condition of toddlers, by guiding parents to take their children to the posyandu to weigh and measure their height regularly every month. With increasing age, the child's height also increases. The results of height measurements are used to assess the nutritional status of children (Ministry of Health, 2012). The results of Febry’s research (2012) that KMS ownership is still low where KMS is still limited as a toddler’s weight recorder, not as a growth monitoring tool. If it is seen from the existing facilities and infrastructure at the posyandu, the ability of cadres to monitor is still low. In fact, in this KMS there is a record of children's growth, which is represented by changes in their weight every month.

Growth monitoring is the regular measurement of a child's weight and height; then the measurement results are plotted onto the growth line. If the plot results show abnormal growth then the health workers and families will take action to improve the nutritional status and health of the child. Sometimes growth monitoring is used as part of health promotion, to discuss feeding, hygiene, and other aspects. This growth monitoring acts as an early signal to impaired child growth, so that malnutrition does not occur and reduces infant mortality rates (Abul Fadl et al, 2010).

Early detection to find out barriers to child development has also not been given, so that preventive measures to overcome developmental disorders in toddlers have not been carried out (Hayati and Fatimaningrum, 2015). Parents are very influential parties in monitoring and fulfilling the needs of children's growth and development, especially in the five years of life which is a golden age for child growth and development. Data from research shows an increase in the prevalence of parents who do not monitor children's growth and development periodically, even though monitoring of toddler growth is in line with early detection of toddler growth disorders so that interventions and simulations can provide optimal results (Simanjuntak et al, 2017).

Early childhood development includes several aspects, one of which is the physical motor aspect. Wiyani (2014) states that physical language is defined as body, body, body. While the motor is defined by the mover. So the physical-motor development of early childhood can be interpreted as a change in body shape in early childhood which affects his body movement skills. According to Yunandi et al (2020) in terms of monitoring the growth and development of toddlers, the role of health workers and health cadres who are warm, helpful, and participate will ensure the success of detecting deviations in the growth and development of toddlers.

Based on the results of Riskesdas (2018), it can be seen that from 82,661 children under five who were weighed nationally, there was a prevalence of...
underweight of 19.6%, consisting of 5.7% of malnutrition and 13.9% of undernourished. Based on reports from puskesmas throughout 2013, the number of cases of malnutrition in East Lampung Regency was 18 cases. Malnutrition cases were spread in 14 Puskesmas areas with the most cases of malnutrition in Sukaraja Tiga, Karya Tani, Sribhawono and Purbolinggo Health Centers with 2 malnutrition cases each (East Lampung Health Office, 2013).

Based on the facts above, it is very interesting to conduct research on the quality of monitoring the growth of children under five by posyandu cadres in the context of early detection of cases of undernourished or malnourished children under five. This is also very important because the activity of weighing children under five is one of the minimum service standards that must be implemented by a nutrition improvement program.

**RESEARCH METHODS**

In this study, the author uses quantitative research and research design using descriptive. The population in this study was taken from the number of all posyandu cadres who were recorded in the working area of the Sukaraja Tiga Health Center totaling 160 people from 32 posyandu located in the Sukaraja 3 Health Center Area and the sample in this study was 160 people using total sampling technique. Data analysis used univariate analysis.

**RESEARCH RESULTS**

Based on the table above, it is known that there are 93 (58.1%) respondents aged 20-30 years, 99 (61.9%) respondents with high school education, and 92 (57.5%) respondents with 3-4 years of service.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30 years old</td>
<td>93</td>
<td>58.1</td>
</tr>
<tr>
<td>31-40 years old</td>
<td>66</td>
<td>41.3</td>
</tr>
<tr>
<td>41-50 years old</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JUNIOR HIGH SCHOOL</td>
<td>55</td>
<td>34.4</td>
</tr>
<tr>
<td>SENIOR HIGH SCHOOL</td>
<td>99</td>
<td>61.9</td>
</tr>
<tr>
<td>PT</td>
<td>6</td>
<td>3.8</td>
</tr>
<tr>
<td>Years of service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 Year</td>
<td>9</td>
<td>5.6</td>
</tr>
<tr>
<td>1-2 Years</td>
<td>52</td>
<td>32.5</td>
</tr>
<tr>
<td>3-4 Years</td>
<td>92</td>
<td>57.5</td>
</tr>
<tr>
<td>&gt;4 Years</td>
<td>7</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that from 160 respondents, 100 (62.5%) respondents did the weighing of children under five well.

**Table 2**

Frequency Distribution of Weighing Toddlers by Posyandu Cadres

<table>
<thead>
<tr>
<th>Weighing Method</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well</td>
<td>100</td>
<td>62.5</td>
</tr>
<tr>
<td>Not good</td>
<td>60</td>
<td>37.5</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that from 160 respondents, 100 (62.5%) respondents did the weighing of children under five well.

**Table 3**

Frequency Distribution of Registration Methods by Posyandu Cadres

<table>
<thead>
<tr>
<th>How to Record</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well</td>
<td>102</td>
<td>63.8</td>
</tr>
<tr>
<td>Not good</td>
<td>58</td>
<td>36.3</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that from 160 respondents, 102 (63.8%) respondents recorded well.

**Table 4**
Based on the table above, it is known that from 160 respondents, 110 (68.8%) respondents interpreted the results of monitoring the growth of children under five in a way that was not good.

**DISCUSSION**

**Quality Monitoring of Toddler Growth by Posyandu Cadres Based on Toddler Weighing Method**

The results of this study indicate that from 160 respondents, 100 (62.5%) respondents did the weighing of toddlers well and 60 (37.5%) respondents did the weighing of toddlers in a bad way. Judging from the number of errors in each procedure item, it is known that in the first step 8 (5%) respondents made mistakes, in the second step 16 (10%) respondents made mistakes, in the third step there were 28 (17.5%) respondents who made mistakes, in the fourth step there were 19 (11.9%) respondents made mistakes, in the fifth step there were 22 (13.8%) respondents made mistakes, in the sixth and seventh steps there were 18 (11.3%) respondents made errors, in the eighth step there were 20 (12.5%) respondents made mistakes, 26 (16.3%) respondents made mistakes, and 19 (11.9%) respondents made mistakes.

One of the tasks of posyandu cadres is to help weigh toddlers. To obtain good and quality weighing data, it must be carried out in accordance with standard anthropometric data measurement procedures and must pay attention to the precision and accuracy of measurements (Perez, 2015).

The skills of cadres on how to weigh toddlers are very important in producing accurate weight data, because inaccurate weighing results will result in the use of incorrect information to monitor children's growth. In this study, there were 60 (37.5%) respondents who weighed children under five in a way that was not good. The wrong way of weighing can indeed produce inaccurate data, so it cannot be used as good information for monitoring the growth of toddlers. But apart from that, the factor of the weighing equipment used can also cause the resulting data to be inaccurate (Sumardilah, 2013).

Posyandu cadres must know the factors that influence the measurement or weighing. Because the cadres do the weighing and are always monitored or reminded by Puskesmas officers to collect data for Posyandu children. However, if the cadres do not pay attention to the factors that affect weighing, the data collected cannot be ascertained that all of them are free from errors, because in their duties, Puskesmas officers rarely check the skills of Posyandu cadres in weighing (Farichatusoolichah, 2021).

When there is an error during anthropometric measurements, especially weight measurement errors are left alone, the health information system has the possibility of not being able to produce good output so that decisions cannot be taken according to what is happening in the field, inappropriate program planning to overcome existing problems, the community also cannot know the health problems that actually occur in their area (Farichatusoolichah, 2021).

This study is in line with research conducted by Sumardilah (2013) which showed that from 72 cadres, 38 (52.8%) respondents did the weighing correctly and 34 (47.2%) respondents did the weighing in the wrong way.

According to the researcher, the skills of cadres in weighing toddlers must be done correctly, namely paying attention to accuracy and precision. This must be considered because cadres who make mistakes in weighing toddlers will have an impact on inappropriate assessment of toddler development. In addition, the skills of these cadres are influenced by the age of the cadres. The age of cadres in this study were mostly 20-30 years old, namely 93 (58.1%). The age of the cadres, who are relatively young, causes work experience that is not optimal. So there are still mistakes when weighing toddlers. The most errors in weighing toddlers are in step 3 regarding errors in placing the pendulum at zero, if the ends of the two weighing nails are not in a straight position, then the scales need to be checked or replaced with new ones. This is what causes the results of the scales to be inaccurate.

**Quality Monitoring of Toddler Growth by Posyandu Cadres Based on Recording Method**

The results of this study indicate that from 160 respondents, 102 (63.8%) respondents recorded well and 58 (36.3%) respondents recorded in a bad way. In terms of errors in recording, it is known that in step 1, 10 (6.3%) respondents made mistakes, in
steps 2 and 3 there were 24 (15%) respondents made mistakes, in step 4 there were 13 (8.1%) respondents made mistakes, in step 5 there were 21 (13.1%) respondents made mistakes, in step 6 there were 20 (12.5%) respondents made mistakes, in step 7 there were 25 (15.6%) respondents made mistakes, and in step 8 there were 13 (8.1%) respondents made mistakes.

Card Towards Healthy (KMS) is an important tool used to monitor the growth of toddlers, namely by recording or plotting the results of weighing children's weight into a graph in the KMS. From the results of the plotting, a trend line will be made regarding the development of children's weight (Kemenkes RI, 2020).

The results of plotting the child's weight into the KMS graph will affect the shape and direction of the trend of the child's weight development, so that in the end it will have an impact on monitoring the child's weight growth. Due to errors in recording, it is possible that the child's weight that should be recorded and assessed as Increase (N) may be recorded and assessed as Decreased/Fixed (T) or vice versa (Sumardilah, 2013).

Mother's understanding of the weight gain chart is important so that mothers can take action as early as possible if the child's growth is not in accordance with his age. This is where the role of health workers and cadres is to be able to explain to mothers what to do if the child's weight chart goes up, flattens or even goes down, is on the green, yellow or red line. If this can be done properly, the problem of malnutrition will be detected and handled early (Febry, 2012).

The quality of the data recorded and reported is influenced by the knowledge and motivation of cadres (Devi, 2014). One strategy to change behavior is to provide information to increase knowledge so that awareness arises which in the end the individual will behave in accordance with his knowledge (Notoatmodjo, 2012). One way of providing information is by providing training conducted by health workers. Increased knowledge of cadres after training can occur if the material presented is easy to understand by cadres (Lubis & Syahri, 2015).

Another factor that affects the quality of the completeness of the report is the age of the cadres. A cadre will remain a cadre until that person decides to no longer be a cadre, because there is no regulation that mentions the age limit for becoming a cadre, so many cadres who, even though they are old, remain cadres (Nurayu, 2013).

This study is in line with research conducted by Suhartika (2016) which showed that most of the posyandu cadres were skilled in recording, namely 31 (60.8%) people.

According to the researcher, there were 58 (36.3%) respondents who recorded incorrectly, while the cadres in recording the results of weighing children under five in KMS had to be precise. Because if the interpretation of the weighing results is not correct, then growth disorders cannot be detected early, so toddlers will be late in getting treatment. This is because there are 93 respondents (58.1%) aged 20-30 years. Judging from the age of the respondents who have just entered 20-30 years, this has an impact on the mother's lack of experience in recording weighing results. In addition, when viewed from education, there are 99 (61.9%) respondents with high school education. High school level education is education in the high category where cadres should be able to perform their skills well. However, education is not the only factor that determines the accuracy of taking notes, but there is a period of service for the cadre. In this study there were 52 (32.5%) respondents with a working period of 1-2 years. The period of work that is still relatively short can cause inaccuracies in recording. This is because the skills of the cadres are not very good due to lack of training or being less active in seeking information about monitoring the growth of children under five. In this study, the recording of under-five growth monitoring was mostly incorrect at number 7, namely regarding filling in the breast milk column, immunization and vitamin A when given. The period of work that is still relatively short can cause inaccuracies in recording. This is because the skills of the cadres are not very good due to lack of training or being less active in seeking information about monitoring the growth of children under five. In this study, the recording of under-five growth monitoring was mostly incorrect at number 7, namely regarding filling in the breast milk column, immunization and vitamin A when given.
Quality Monitoring of Toddler Growth by Posyandu Cadres Based on Interpretation of Results

The results of this study indicate that from 160 respondents, 50 (31.3%) respondents interpreted the results of monitoring the growth of toddlers well and 110 (68.8%) respondents interpreted the results of monitoring the growth of children under five in a way that was not good.

Card Towards Healthy (KMS) is a card that contains a child’s normal growth curve based on the anthropometric index of weight for age. With KMS growth disorders or the risk of excess nutrition can be detected early, so that preventive action can be taken more quickly and precisely before the problem becomes more serious. In posyandu activities, weighing children, filling out KMS and interpreting the results are carried out by cadres, so that in this case the role of cadres is very large in monitoring child growth (Kemenkes RI, 2020).

The ability to interpret the results of weighing in KMS is the basic capital in early detection of growth disorders in children under five. The results of this interpretation are very important because this is where the actions that must be taken by the cadres in relation to the development of children’s growth come from. If the child’s weight increases (N), then the cadres must give praise, encouragement, encouragement to mothers of toddlers to continue to maintain and improve children’s health. If the child’s weight is fixed or decreased once (T1), the cadre must provide counseling about healthy food, then if the child’s weight has decreased 2 times in a row, the cadre must provide recovery food, and if the child’s weight has decreased 3 times in a row then cadres must refer children to health services (Suhartika, 2017).

This study is in line with the research conducted by Nurlisis (2017) which showed 133 (65.5%) respondents did not fill out the KMS correctly and 70 (34.5%) respondents filled the KMS correctly.

According to the researchers, monitoring the growth of toddlers with KMS needs to be done regularly. With KMS children’s growth can be monitored properly. In the KMS, the weight of the toddlers from the weighing results will be filled with dots and connected with lines, thus forming a child’s growth line. Based on this growth line, it can be judged whether the child’s weight has increased or not. With this monitoring, the prevalence of under-fives with growth disorders can be detected earlier.

Judging from the characteristics of the respondents, it was found that errors in data interpretation were made by cadres with new tenures so that they did not have experience.

CONCLUSION

The quality of monitoring the growth of children under five by posyandu cadres based on the method of weighing children under five, it was found that 100 (62.5%) respondents did the weighing of children under five well. The quality of monitoring the growth of children under five by posyandu cadres based on the recording method, it was found that 102 (63.8%) respondents recorded well. The quality of monitoring the growth of children under five by posyandu cadres based on the way of interpreting the results of weighing to KMS, it was found that 110 (68.8%) respondents interpreted the results of monitoring the growth of children under five in a way that was not good.

SUGGESTION

To improve the quality of cadres regarding monitoring the growth of children under five, cadres can be more active in asking midwives about proper weighing and recording methods. In addition, cadres can participate in training organized by the puskesmas. It is hoped that the Sukaraja Tiga Health Center can provide more routine assistance and supervision to improve the skills of cadres regarding monitoring the growth of toddlers by conducting training, training all posyandu cadres on KMS and how to fill it out. Further researchers can examine the factors that affect the quality of cadres in monitoring the growth of toddlers such as knowledge, frequency of training, and other factors that can affect the skills of cadres.

REFERENCES


Farichatusoolichah, Rifka Annida. (2021). Keterampilan Kader Posyandu dalam Melaksanakan Penimbangan sesuai dengan


