

Nutritional Status of Toddler Children in Cikoang Village, Mangarabombang District, Takalar District

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ABSTRACT

Nutritional status is the end result of the balance between the food that enters the body (nutrient input) and the body's need (nutrient output) for those nutrients. In other words, the state of the body as a result of food consumption and the use of nutrients. Nutrient requirements are determined by many factors, including: basal metabolic rate, growth rate, physical activity, and relative factors, namely: ingestion, differences in absorption, utilization, and differences in excretion and destruction of nutrients in the body. A sample of 82 children aged between 2.5 and 5.0 years and 114 households representing adulthood was observed in two villages with Maudu' rituals, and 99 and 134 households in two villages without Maudu' rituals. The research was conducted in Cikoang Village, Takalar District. The results of this study indicate that the nutritional status of children under five in Cikoang Village is not good and needs attention from related parties in helping to improve child nutrition in Cikoang Village.

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Keywords:

Balance of Nutritional Value of Toddlers; Nutritional Status; Toddler Food Consumption.

1. Introduction

Nutrition has an important role in the human life cycle from the womb to old age. Nutritional status is one of the main factors related to the quality of human resources. Undernutrition or malnutrition during childhood, especially at pre-school age, can result in disruption of growth and physical development and intelligence of children. The formation of intelligence, especially at an early age, is influenced by the intake of nutrients received by the body. Pre-school age is included in a group of people who are vulnerable to nutrition because at that time children experience a relatively rapid development so that they require relatively large amounts of nutrients (Khasanah, 2014).

Nutritional status is influenced by many complex interplaying factors which are grouped into direct and indirect factors. Direct factors are caused by lack of food intake so that the body's nutritional needs are not fulfilled and infectious disease factors that cause a decrease in the body's immune system. Meanwhile, indirect factors can be caused by low family food security, lack of knowledge, poor parenting, inadequate sanitation and health services (Irianto, 2014; Marmi & R, 2012). Various eating problems can cause children to lose their appetite and have difficulty eating, which can affect their nutritional status. (Rahmi et al., 2020).

According to Notoatmodjo (2003), the problem of community nutrition is not only related to health aspects, but other related aspects, such as economy, socio-culture, education, population, and so on. Therefore, the handling or improvement of nutrition as a therapeutic effort is not only directed at nutrition or health disorders, but also towards other fields. Lack of nutrition will have an impact on decreasing the quality of human resources which can further lead to failure of physical growth, mental development and intelligence, decreased productivity, increased illness and death. The vision of nutrition development is "to create a nutritionally aware family to achieve optimal nutritional status of the community/family" (Rustanti, 2016). Thus, toddlers are more vulnerable and tend to fall into the high-risk group for death during the first five years of life (Parks, 2015). Therefore, malnourished children are a big and urgent matter for all and if we ignore malnourished children, it will have a good impact on their health and development (Islam et al., 2014).

The basic cause or root of the nutrition problem is the economic crisis. Political and social including natural disasters, which affect the imbalance between food intake and the presence of infectious diseases, which in turn affect the nutritional status of children under five. Therefore, malnutrition increases the risk of child morbidity and mortality associated with infectious diseases, and poor cognitive and developmental outcomes (Black et al., 2013). On the other hand, malnutrition status is the main cause of infectious disease (Black et al., 2013; Wolde et al., 2016), so that prevention of disease or early detection of malnutrition will ultimately improve the nutritional status of children under five (Hasib et al., 2020; One, 2018).

Nutrition is believed to be very important for the socio-economic development of a country and is an important component in achieving the goals of sustainable development. The nutritional status of children under five in a society is an indicator of the level of development and future prospects of society (Badake et al., 2014; Sakwe et al., 2019). The nutritional status of infants and toddlers is of particular concern because the early years of life are very important for optimal growth and development in the future (Schwarzenberg & Georgieff, 2018; Sen et al., 2020). Proper nutrition for children leading to adequate growth and good health is an important foundation of human development (Ahmad & Mishra, 2022). In addition, the high prevalence of malnutrition impedes future economic growth by reducing the intellectual and physical abilities of the entire population (Haile & Amboma, 2018).

Malnutrition is an important public health problem in developing countries where resources are low and is more common in children under five (Abate & Belachew, 2019; Bhandari, 2013; Govender et al., 2021). A common cause of malnutrition in children under five is lack of access to nutritious food. Poor eating habits, respiratory infections, frequent diarrhea and malaria were also identified as the main causes of malnutrition in this age group. Worldwide, more than 10 million children under 5 years of age die each year from preventable and treatable diseases regardless of effective health interventions (Alemayehu et al., 2015).

In contrast to previous studies, this research tries to integrate local cultural traditions with the nutritional status of toddlers. The extent to which local cultural traditions are able to influence the nutritional status of the community, especially in toddlers. One of the customary ritual traditions that is often carried out by local communities in Cikoang Village, Takalar Regency is the maudu ritual or ritual celebrating the birth of

the Prophet Muhammad SAW. This ritual activity is seen as a means or way of collecting and distributing food for the community, so it is very likely to be a means of improving community nutrition. This is supported by research (Busthanul et al., 2014) that the culture and beliefs of a community have been proven and believed to affect the nutritional status of the community. Research conducted by (Hermin et al., 2018) emphasizes that the maudu ritual in Cikoang Village has an impact on the community, which is seen in the social, economic and cultural tourism fields. This study aims to determine the factors associated with the nutritional status of toddlers in Cikoang Village in relation to traditional rituals. Cikoang is the name of a village that is the source and center of the development of the 'Maudu ritual' adopted by not only the Sayyid community, but almost all residents of Cikoang Village, even the entire Mangarabombang District, which is located on the south coast of South Sulawesi, precisely in Takalar Regency.

2. Materials and Methods

This research uses descriptive explanatory qualitative approach, which is a research method in addition to conducting descriptions as well as statistical tests. The descriptive research method is a type of research that only describes the research variables independently without conducting hypothesis testing. The explanatory research method explains the causa relationship (cause-effect) between one variable and another by conducting hypothesis testing. or statistical test. In the method of data collection and analysis, researchers used a concurrent triangulation strategy (in-depth interview, observation and documentation). Data were collected from three main (core) sources namely: (i) informants consisting of traditional leaders and community leaders of Cikoang; (ii) children under five years old (BALITA) including BALITA aged 30 to 60 months and (iii) representative adults, namely heads of household (HH) who were selected as respondents aged 19-70 years.

To obtain data on nutritional status, observations were made of the LFW of the head of the household. Anthropometric data of the LAC in the form of body weight and height were obtained through direct measurement and age was obtained by asking parents and or relatives, and cross-checked with village health workers. From HHs through direct observation or direct measurement, anthropo-metric data on HHs and their socio-economic conditions and respective contributions to the Maudu' ritual were obtained. Both data sources include samples of Maudu' followers and non-followers.

The selection of informants can be based on two aspects, namely theory and presumption, both of which are based on the depth of understanding or experience of the respondent/informant (not based on random choices). In this research, the method of selecting informants uses a presumptive technique. A priori sampling is often used in public health research, which is done by determining the characteristics of informants based on the research problem and objectives. For example, if qualitative research aims to explore health behavior and adolescent behavior in one community, then research informants will be selected from that community. A sample of 82 children aged between 2.5 and 5.0 years and 114 households representing adulthood was observed in two Maudu' ritual follower villages, and 99 and 134 households in two non-Maudu' ritual follower villages.

3. Results and Discussion

3.1 *Conception of Nutrition and Nutritional Status*

The importance of nutritional knowledge for consumption is based on three facts. First, adequate nutritional status is important for health and well-being. Second, each person will only have the necessary nutrients if the food eaten is able to provide the nutrients necessary for optimal body growth, maintenance and energy. Third, nutrition science provides necessary facts so that people can learn to use good food for nutrition improvement (Poerwosoedarmo & Sediaoetama, 1987).

The foregoing implies that socio-cultural factors, including those related to the religion of a community, may very well determine food choices in terms of quantity, type, method of procurement, processing and presentation/distribution and will affect the nutrition of the community concerned. Therefore, Maudu' as a form of culture related to the behavior of the community in collecting and distributing and processing food needs to get a special study in relation to its role or influence in nutritional status and improvement of community nutrition.

Ritual function Maudu' for people's nutritional status was assessed by way of comparing the nutritional status of followers Maudu' (PM) with a non-follower community Maudu' (N-AM) through data collection nutritional status of the community itself. The nutritional status of the community is measured through the anthropometric examination method, namely the observation of the parameters of the body composition. Anthropometric observations were carried out on groups (a) children under five years of age and (b) adults to obtain body mass index (BMI) data by measuring various anthropometric index parameters, namely height for age (TB/U), weight body against age (BW/U).

For this purpose, the determination and measurement of the sample in two villages of Maudu' followers and two villages of non-followers of Maudu' for the children and adult groups. A total of 82 children between 2.5 to 5.0 years representing children and 114 family heads (KK) representing adult age were observed in two villages of Maudu' followers. Meanwhile, at the same time and for the same period, an observation was also carried out on 99 and 134 KK in two non- Maudu' villages. The results are described as follows.

3.2 *Nutritional Status of Children*

The results of the analysis of the nutritional status of toddlers based on height for age (TB/U) and weight for age (BW/U) and a number of data related to them for the Maudu' (PM) and Non- Maudu' (N-PM) followers are presented in Appendix 7 and 8 Tables. From the results of the analysis, the function or influence of Maudu' can be explained. A more in-depth study was carried out on the nutritional status based on height for age (height/age). This is because the nature of nutritional parameters based on height can provide information on past and long-term nutritional impacts, not for a moment, such as nutritional parameters based on body weight for age (BW/U).

From the two parameters above, in general, it can be observed that the indication that the TB/U parameter tends to give a better status than the BW / U parameter. However, seen from the pattern, the two parameters give a harmonious pattern. This means that people or individual samples who are good based on the TB/U criteria tend to be good based on the BW/U criteria. There is no contradiction between the two (compatible).

Even so, there is a tendency for the results of the TB/U criteria (which are long-term) which is 78 percent better than the BB/U criteria (which are temporary) which only reached 50 percent. There is no explanation regarding this matter, but it should be presumed that the low nutritional status experienced by toddlers is short-lived, and returns to good condition (recovered) in a relatively long time.

3.2.1 *Nutritional Status of Infants in Maudu ' Community Based on Height / Age and Gender*

The distribution of the nutrition of the children of the *Maudu '* followers based on height according to age (height / age) is shown in Figure 1. It can be seen that toddlers of the *Maudu '* followers' community are predominantly well-nourished, namely 78 percent followed by moderate status (18 percent). Although there is no malnutrition, there are four percent of malnutrition, mainly from women. There is no significant difference between male and female toddlers, but cumulatively good and moderate nutrition for men is slightly better at 97 percent compared to women with 95 percent.

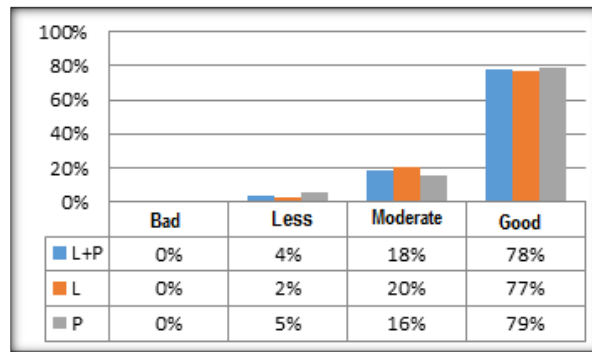


Figure 1. Distribution of Nutrition Status of *Toddlers in Maudu ' Community Based on Height/ Age by Gender*

3.2.2 *Nutritional Status of Toddlers in Maudu ' Community Based on Weight/Age and Types of Seagrass*

The distribution of the nutrition of children of children who follow *Maudu ' (PM)* based on body weight for age (BW/U) is shown in Figure 2. It can be seen that only half (50 percent) of the *FOLLOWERS* of the *Maudu '* followers are in good nutrition and approximately one third (34 percent) are in moderate status. There are 11 percent malnutrition and even 4 percent malnutrition.

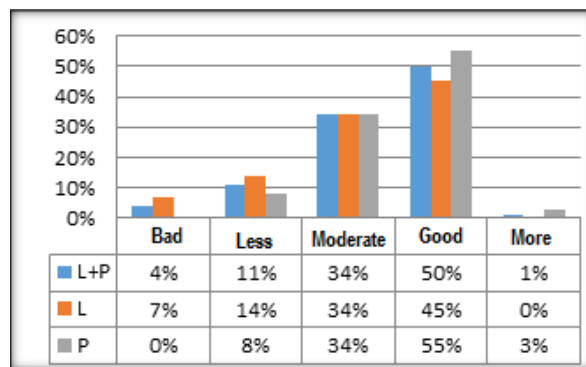


Figure 2. Distribution of Nutrition Status of *Toddlers in the Community of Maudu ' Followers by Weight / Age by Gender*

It can also be seen that, different from the criteria based on height/age, the nutritional status of male toddlers tends to be lower than that of female toddlers. Malnutrition is not found in women while there are 7 percent in men; or in other words four percent of malnutrition entirely comes from male toddlers. Likewise in over nutritional status; it was found three percent in women while in men only one percent in their respective sex groups. Relevant research submitted by (Lestari, 2015) that the results of the analysis of the relationship between gender and nutritional status of toddlers show that there is no significant relationship between gender and nutritional status of toddlers (p value = 0.528). This is due to the absence of differences in the value views adopted by families towards the existence of a boy and a girl in this region, so family treatment in terms of parenting, feeding, opportunities to access health resources is the same for boys and girls.

3.2.3 Nutritional Status of Toddlers in Maudu ' Non-Followers Based on Height/Age

Nutritional distribution of non- Maudu 'community toddlers based on height for age (height/age) is shown in Figure 3. It can be seen that of the community who are not followers of Maudu ' dominantly, namely 86 percent with good nutrition status and the remaining 14 percent with moderate status. There is no malnutrition or lack of nutrition.

Nothing at all FIVES differences between men and women CHILDREN. In terms of good nutritional status, each male and female has a figure of 86 percent. Likewise, the nutritional status is 14 percent each. In this perspective, the nutritional status of toddlers is very good and evenly distributed between genders.

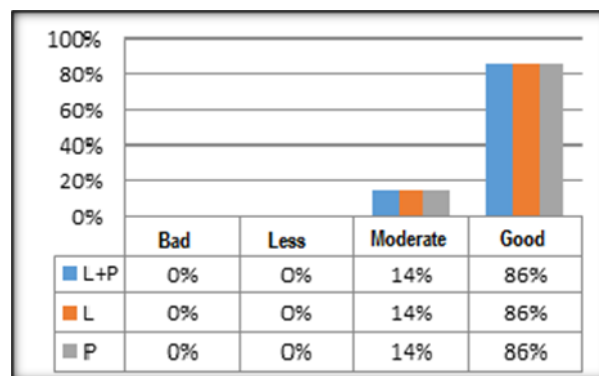


Figure 3 . Distribution of Nutritional Status of Infants of Maudu' Community Non-Followers based on Height/Age by Gender

3.2.4 Nutritional Status of Toddlers in Maudu 'Non-Followers Based on BW/U

Nutritional distribution of non-followers of Maudu ' (N-PM) community based on body weight for age (B B/U) is shown in Figure 4. It can be seen that only more than half (56 percent) of the N-PM community have a good nutritional status, followed by 22 percent with moderate status. There are 17 percent malnutrition and even 5 percent malnutrition.

In good nutritional status, although men are lower than women (47 percent compared to 64 percent), cumulatively good and moderate nutrition for men is relatively higher at 82 percent compared to 74 percent because moderate nutrition is dominated by men. Malnutrition is found more in women. This means that malnutrition and deficiency are found more in women.

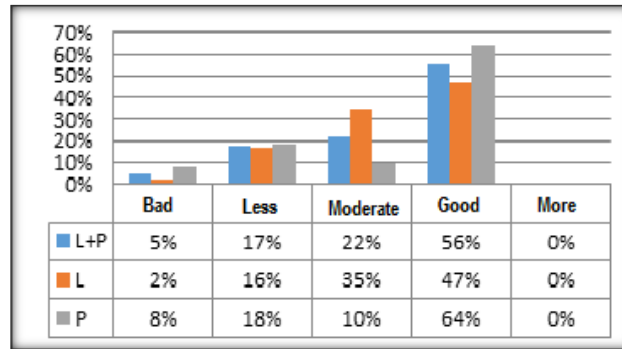


Figure 4. Distribution of Nutritional Status of Infants of Maudu' Non-Followers based on Weight/ Age by Gender

3.2.5 Comparison of Nutritional Status of Maudu' Community Follower and Non-Follower Community Based on Height/Age

The results of the comparative analysis of the nutritional status of children of the people of Maudu' (PM) and non- Maudu' (N-PM) followers are shown in Figure 5 . It is clear that the relative level of nutrition in the PM community is not higher, on the contrary, it tends to be lower than the N-PM community. It can also be seen that the percentage of PM people with normal and high nutritional status is 18 and 78 (96) percent less than the 14 and 86 percent (100 percent) in the N-PM community. In addition, in the PM community there is 4 percent deficiency of nutrition while in the N-PM community there is no.

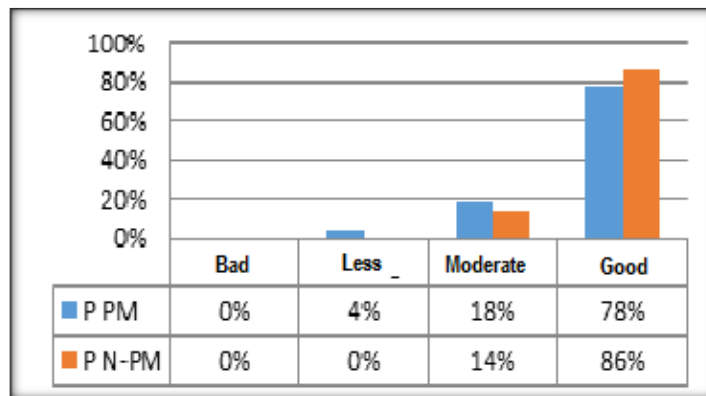


Figure 5. Comparison of Nutritional Status of PM and N-PM Community Toddlers by TB/U

3.2.6 Comparison of Nutritional Status of FOLLOWERS and Non-Follower of Maudu' Community Based on BB/U

The results of the comparative analysis of the nutritional status of the FOLLOWERS of the Maudu' (PM) and non- Maudu' (N-PM) followers are shown in Figure 6. It can be seen in Figure 6 that based on body weight for age, the nutritional status of children under five who follow Maudu (PM) tends to be higher than for people who are not followers of Maudu. (B-PM). In the PM community, the percentage of BODY with moderate and good nutritional status is 84 percent, compared to only 78 percent for non-followers of maudu. And the malnutrition status and less followers of maudu have 15 percent (better) than 22 percent of non-followers. There is also 1 percent with more nutritional status in maudu followers. This means that in terms of body weight,

the nutritional status of FOLLOWERS of Maudu Cikoang is better than non-followers of Maudu Cikoang.

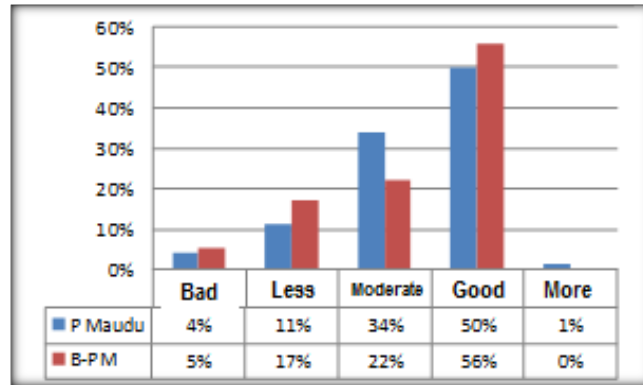


Figure 6. Comparison of Nutritional Status of PM and N-PM Community Toddlers based on BB/U

3.2.7 Comparison of nutritional status of male children under Maudu 'community and non-followers based on height/age

The results of the comparative analysis of the nutritional status of children of males in the people of Maudu ' (PM) and non-followers of Maudu ' (N- PM) are shown in Figure 7. It is clear that the relative level of nutrition in the PM community is not higher, on the contrary, it tends to be lower than the N-PM community. It can be seen that in the PM community, the percentage of male toddler with normal and high nutritional status is 20 and 77 percent or 97 percent less than 14 and 86 percent (100 percent) in the N-PM community. Moreover, in the PM community there is also a 2 percent deficiency.

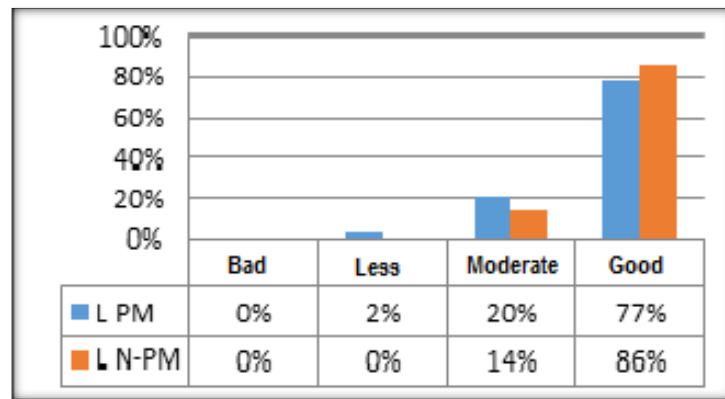


Figure 7. Comparison of the Nutritional Status of Male Toddlers in the PM and N-PM Communities based on TB/U

3.2.8 Comparison of Nutritional Status of Women Children of Maudu' Community and Non-Followers by TB/U

The results of the comparative analysis of the nutritional status of children of children of women who follow Maudu ' (PM) and non-followers of Maudu' (N- PM) are shown in Figure 8 . As in the total analysis of (a combination of men and women), it appears that the relative nutritional level of women in the PM community is not higher than in the N-PM community. In the PM community, the percentage of male BODY status with normal and high nutrition is 18 and 78 percent or 96 percent, less than 14 and 86

percent or 100 percent in the N-PM community. Moreover, in the PM community there is 4 percent under nutrition and it is not found in N-PM.

The dominant factors that cause malnutrition are lack of knowledge about nutrition, the ability to buy food is not fulfilled (purchasing power due to low income), the community is better off borrowing than buying nutritious food and sending children to school, for example during the Maudu Lompoa celebration there is a distribution of food distributed but not intended for toddlers but given to adults. This is where malnutrition arises, besides that the Cikoang community thinks it is better to go into debt in order to be able to do or participate in Maudu Lompoa celebrations than to buy nutritious food for their children.

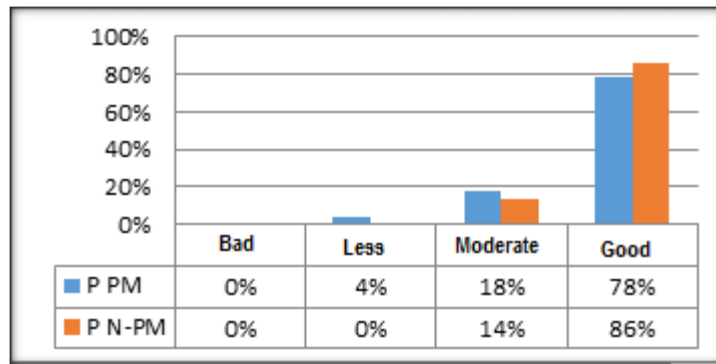


Figure 8. Comparison of Nutritional Status of Women Children of PM and N-PM Communities by TB / U

Cultural rituals often involve certain types of food being served in the event or celebration. If the food consumed in such rituals is nutritionally imbalanced or lacking in essential nutrients, this may negatively impact the nutritional status of the child. For example, if the food consumed in rituals contains too much-saturated fat or sugar, the child may experience deficiencies in essential nutrients such as vitamins, minerals or fiber. In addition, cultural rituals involve large amounts of food or consuming larger portions of food than usual. If the child gets used to following these rituals on a regular basis, this may lead to an excessive increase in calorie intake and potentially lead to overweight or obesity. This can also have a negative impact on the child's nutritional status.

Furthermore, cultural rituals can shape a child's daily eating patterns. If the child grows up in an environment where cultural rituals emphasize the importance of eating with the family or following certain eating rules, this can help promote good and healthy eating habits. Conversely, if cultural rituals lead to an unbalanced, irregular or nutrient-deficient diet, a child's nutritional status can be negatively affected. Cultural rituals can also be a means to educate communities about the importance of balanced nutrition and promote positive changes in diet. By engaging the community in efforts to improve child nutrition, cultural rituals can effectively change perceptions and behaviors related to healthy eating.

Four functions (production function, processing function, distribution function and consumption function) of the processional elements and other Maudu' ritual-related activities have the potential to be developed or improved in improving the nutritional status of the Cikoang community. If ranked, the most potential is the distribution function, although until the current condition (existing) this function is the most prominent. Following this function are the processing function, production function

and consumption function, respectively. It is said so because, in the implementation of maudu, the collected food (baskets) will be distributed to people or residents according to the will of the main actors of the distribution.

The main actor in the distribution function is the person in charge of a maudu celebration and then continued by the Pa'rate'. The person in charge of Maudu Caddi is the event's host, in Maudu Langgar is the committee at the mosque, and in Maudu Lompoa is the highest customary leader, Karaeng Opuu. Upon arrival at their respective homes, the Pa'rate' will distribute the contents of the baskets according to their own wishes. They will decide to whom and how much to distribute, even though there are general rules. These conditions or systems have the opportunity to be developed or optimized so that they can be more effective.

In the processing function, improvements can be made to minimize the amount of food, especially rice (half-cooked rice) that is discarded due to damage or spoilage. Each grain of maudu' rice requires handling in the form of drying so that it is not damaged. Dependence on the heat of the sun is a problem. Therefore, introducing processing technology is expected to help, especially when Maudu' coincides with an unfavorable season (rainy season).

As for the production function, its performance is likely to be improved in two ways. Firstly, by fostering the notion that using rice from one's land (local production) is more blessed than buying it. Therefore, land in Cikoang tends to be used more effectively (not left fallow) to be more productive. Secondly, increasing productivity through the introduction of agricultural technology, which some residents (followers) are still reluctant to do because it is considered not good for the designation of Maudu'. Although not many things can be developed in the consumption function, at least maudu has contributed to the level of food consumption and then the absorption of nutrients. This is due to the high consumption during Maudu' which lasts for about a month.

The Takalar regional government implements several policies concerning preventing malnutrition, namely culture-based nutrition education. The local government develops nutrition education programs tailored to the local community's cultural and religious values. This is done through lectures, seminars or campaigns involving religious or traditional leaders to deliver nutrition messages that align with local religious teachings or beliefs.

In addition, if there are traditional religious ritual practices that have a negative impact on nutritional status, local governments try to reorient these practices to be more supportive of healthy nutrition. For example, replacing food in certain ceremonies with more nutritious and balanced food. Furthermore, the provision of nutritious food during celebrations. During traditional or religious celebrations, local governments provide support in providing nutritious food for the community. This includes supervising and ensuring that the food provided during ritual events meets the necessary nutritional standards. Another attention given by the local government in preventing malnutrition is to collaborate with religious and customary leaders. Local governments work with religious and traditional leaders to develop policies and programs to improve community nutrition. These figures' involvement helps reinforce messages about nutrition's importance in a cultural and religious context. Local governments and relevant agencies continue to monitor and evaluate programs that involve religious rituals

4. Conclusion

It can be concluded that it shows that the nutritional status of toddlers in Cikoang Village is not good and needs attention from related parties in helping to improve the nutrition of children in the village. Meanwhile, in the analysis segment, there are quite a lot of potentials in improving the nutrition of toddlers. In dealing with this, problem analyzes are needed to find methods of actualization of the potential for improving nutrition for toddlers in Cikoang village. From a variety of perspectives and parameter analysis of the age group under five years of age (CHILDREN), which is represented by children aged 30 to 60 months of general nutritional status Toddlers not higher (not better) than the nutritional status Toddlers non-followers *Maudu*'. This is reinforced by the difference test (t test) on maudu followers and non-followers of maudu Cikoang which shows that there is no real difference between the two groups. However, in terms of body weight per age (BW/U), maudu's followers tend to be better. The percentage of moderate and bai status is 84 percent rather than 78 percent among non-followers of Maudu. Therefore, the government needs to encourage and implement supplementary feeding programs for groups at risk of malnutrition, such as children under five, pregnant women, and breastfeeding mothers. These programs can provide the additional nutrients needed to support healthy growth and development. In addition, in the context of cultural rituals, local governments can encourage the development and production of local foods that are rich in nutrients and in accordance with local eating habits. This will not only improve the nutritional status of the community, but also support the local economy.

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