

## The Evaluation of the Success about House Nutrition in Improvement Nutrition Status in Semarang

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### Abstract

Nutrition is an important factor that directly affects the quality of human resources, health problems and childhood nutrition is a major factor inhibiting the achievement of quality generation. Profile data Semarang City Health Office (2017), cases of malnutrition children year 2013-2016 showed a rising trend. Semarang City Health Office have children malnutrition treatment programs in a comprehensive manner, ie checks and supplementary feeding for malnourished children under five in the "House of Nutrition", but from the years 2014-2017, malnutrition children cared for street at House Nutrition Semarang City Health Office just less than 30% improved nutritional status. This study aimed to evaluate the program that has been done, in an effort to improve the nutritional status of children being treated at the house Nutrition Semarang City with the implementation of a comprehensive health examination program against malnutrition children. This research is a qualitative descriptive study. Selection of informants using purposive sampling technique and snowball sampling. The collection of data by observation using observation, in-depth interviews using interview guides, as well as data from medical records of patients. Analysis of data using qualitative descriptive analysis. Program improvement of malnutrition at Home Nutrition Semarang implemented by examination of outpatient comprehensively for 6 months, including anthropometric measurements, determining the nutritional status, provision of F-100 during the inspection and the package to take home, a medical examination by a doctor, medical examination and performed stimulation of early detection and intervention of child development, physiotherapy, counseling and demos nutrition, administration high-calorie high-protein snacks, as well as vitamins and drugs has been running well, only need to be improved in the provision of nutritional counseling and family counseling. Increased IEC necessary for parents of toddlers so that there is a commitment to implement a whole series of checks and recommended by doctors and officers well.

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## INTRODUCTION

Gen is a reflection of the coming generation, which describes the quality of human resources of the future. Nutrition is an important factor because it directly affects the quality of human resources, so health and nutrition disorder in childhood is a major factor inhibiting the generation of quality achievement. Because of an important period in the development of the child is a toddler years when the basic growth that will influence and determine the next child development.

Profile data Semarang City Health Office (2017), the number of cases of severely malnourished children under five only in the year 2013 to 2016 showed an upward trend. Toddler severely malnourished if not treated appropriately as early as possible will potentially be disability or even death toddler, then it could be "The Lost Generation" are not expected.

Semarang City Health Office has children malnutrition treatment programs in a comprehensive manner in the "House of Nutrition". Reporting the results of cases of malnutrition children have been done in the House of Nutrition Semarang City Health Office from 2014 until 2017 show less than the expected target of only 17% - 27% only children malnutrition treated successfully increasing its nutritional status be good nutrition. The lack of desired results in the treatment of malnutrition children in the House of Nutrition is in line with the research Nurfatimah D (2017) which states that there is no effect of the Therapeutic Feeding Center to changes in nutritional status (W / A and H / A) on stunting.

Information obtained from Semarang City Health Office, handling of malnutrition at Home Nutrition is affected by several factors that include a role for Home Nutrition, sources of funding, infrastructure and methods of treatment of malnutrition in supporting the implementation of the program Home Nutrition, as well as patient compliance. However, the handling of malnutrition children in the House of Nutrition has not been analyzed in depth.

Of the problems that exist, it is necessary to evaluate the programs that have been done in the

House of Nutrition in an effort to improve the nutritional status of children being treated at the Nutrition Semarang with the implementation of a comprehensive health examination program against malnutrition children. Objective mendiskripsikan actions taken in the handling of children malnutrition, human resources and infrastructure in a comprehensive screening program against malnutrition children in the house Nutrition Semarang City Health Office, as well as patient compliance through comprehensive screening program to improving the nutritional status of children. The benefits of this research is to investigate the implementation of the program, human resources and infrastructure inspection malnutrition children in the eradication of malnutrition at Home Nutrition Semarang City Health Office and determine patient compliance in the process of implementing comprehensive health screening program. The results of the study can be utilized in the improvement of nutrition program planning eradication of malnutrition in children under five in the city of Semarang.

## METHODS

Research will take place in the House of Nutrition Semarang City Health Office. This research is a qualitative descriptive study. The focus of this study is to evaluate the success of Home Nutrition program in improving the nutritional status in Semarang and see aspects of input, process and output. The data is qualitative data obtained from the medical records of patients examination malnutrition children in the House of Nutrition Semarang, observation, and of information about the subject of research / research informants. Selection of informants in this study is using purposive sampling technique and snowball sampling to obtain the saturation values.

The data collection is done by observation by observation and in-depth interviews using interview guides, as well as data from medical records of patients. Analysis of the data used is descriptive qualitative analysis, to identify, analyze and report on the data obtained.

## RESULTS AND DISCUSSION

### Home Nutrition Program

Activities implemented at Home Nutrition is a day procedure for malnutrition children in a comprehensive manner for 6 months to do as many as 15 meetings in the House of Nutrition, which is 8 times in the first two months (interval once a week) and 8 times in the third month to month to six (interval of two weeks). As an interviewee follows:

*"... Check up since April and the last is September ."*

*" In the first check up in march, then they ask me to come to Banyumanik start from 10 April ....., and this is 15 times check up to the doctor."*

As presented Arnelia (2011), of a joint statement by WHO, WFF, UN SCN and UNICEF in 2007 stated that the handling of child malnutrition, particularly acute malnutrition (severe acute malnutrition) may be performed on an outpatient basis in the community without having to be treated in hospital or Therapeutic Feeding Centre (TFC). The statement is based on research publications malnutrition inpatient treatment at the hospital according to WHO guidelines and some research malnutrition outpatient in the community, especially to do in an emergency in Africa. Similarly, the opinion of Nurcahyo, K. (2010), namely treating malnutrition can be either inpatient or outpatient health centers through nutrition clinic.

Arnelia study (2011) on children malnutrition conducted in an outpatient treatment for 6 months showed normal results of the proportion of subjects according to the index category BB / PB reaches 50% at 3 months after recovery and became 73.9% at the end of the recovery program. Research Susanti, EM, et al. (2017), states that children malnutrition after being treated for 3 months change better nutritional status.

The guidelines are used as a reference in accordance issued by the Ministry of Health for children from acute malnutrition, but encountered in Semarang are children chronically malnourished. Prior conducted the examination at Home Nutrition, first crawl / investigations children malnutrition for the initial screening of malnutrition, and 6-month course of the

examination carried out monitoring activities and evaluations per month, then at the end of the examination carried out an evaluation of the outcome and laboratory examination again ,

*"... Children which handle in Semarang city in general 'Cronic' while the ministry of health issued guidelines is for SAM ...."*

*"The previous tracking of malnutrition for menskrening reports of health center and hospital, .... This inspection for 6 month on an outpatient basis, our reference book of malnutrition Management Guidelines of the ministry of health ... the beginning and end of the examination conducted laboratory examination in health laboratory in Karangdoro and check X-rays in community health center."*

*"... every finish cheking up we always discuss and making the report."*

Reinhardt, K., and Fanzo, J. (2014) state of chronic malnutrition is defined as a form of growth failure that causes physical and cognitive delays in growth and development of children. However, there is no standard procedure for the treatment of chronic malnutrition or stunting. Causes of chronic malnutrition is multidimensional, as well as the consequences, which could be short term and long term. While acute malnutrition, most often indicated by the environment highly infectious disease.

### Human Resources

Lisang, AG (2017) states that the health worker is one of very important factor in the implementation of a health service. Quality health care should be supported by qualified human resources, in addition to the availability of other resources. Results informant interviews with officers Home Nutrition and health worker about Human resources at Home Nutrition and duties of each officer namely human resources involved in any investigation consisted of 4 officers Semarang City Health Office, 1 pediatrician, 3 – 4 physician resident children, 2 physiotherapy, nutrition officer 5 health centers, and for each of the health centers have poor nutrition required to assist during the examination.

*" .... Employee who standby at RG was just cleaning service and guards, more technical team in charge of the health center personnel scheduled picket. We were helped from the team doctor (name) of RSDK and friends physiotherapy of IFI ."*

*"...The technical team of nutrition officer health center 5 people per group, if the doctor (name) sometimes change the doctor (name) 3-4 aided recident."*

*".... Toddler parents check up accompanied by each health center officer, officer nutrition, but if absent it can be change by midwife or health programmer."*

The results of observations of the human resources in charge in the House of Nutrition by the numbers is enough to meet service examination activities malnutrition and each one had to understand and implement tupoksinya, however not all of the action in the examination of malnutrition in the House of Nutrition there a standard operating procedure (SOP), only the procedures outline specific actions taken. Rush, B. (2013: 104) in Lisang, AG (2017) states that the existence of the bureaucratic structures needed in order to support the performance of resources and stakeholders related to the process of policy implementation by means of the division of tasks and responsibilities clearly so there is no inequality tasks in the process of implementing a policy. Standard operating procedure is to guide the implementer in the act.

The informant also said that still needs to be improved discipline of time because there are officers who came late to the reason must complete tasks at their home offices (in health office, hospitals, or health centers). This is due to the absence of permanent personnel who served in the House of Nutrition. Nevertheless discipline officers affect performance results, Fahlevi (2017) in his research indicates that the variable values obtained knowledge (P.Value 0.031  $< \alpha = 0.05$ ) means that there is influence of knowledge on the performance, control tasks (P.Value 0,000  $< \alpha = 0.05$ ) means that there is influence of task mastery of the performance, and discipline (P.Value 0,000  $< \alpha = 0.05$ ) means that there is influence between work discipline on performance.

Rustam (2012) states the efficiency and effectiveness of an execution of a program depends on human resources will determine the success of the program with eksistensi a quality human resources and adequate, so responsive in performing job duties.

### **Infrastructure at Home Nutrition**

Health service facilities is a place that used to organize health care efforts, both promotive, preventive, curative and rehabilitative conducted by the government, local government and / or community, as mandated in Ministerial Decree number 75 of 2014. Health Facility infrastructure for inspection activities malnutrition at Home nutrition Semarang from year to year is getting full and needs for services, such as information obtained:

*"... each year the funds are allocated for the procurement of complementary infrastucture at Home Nutrition to meet the needs of inspection activities of malnutrition in the House of Nutrition."*

The results of observations made the existing infrastructure at Home Nutrition is:

- a. Space administration (there are tables, chairs, storage bins Medical Record, books, supplies, laptops, printers, and anthropometric equipment).
- b. Anthropometric measurement space (there are scales for weight, length measuring tools or height, measuring instruments left upper arm circumference and head circumference measuring devices).
- c. Doctor's office.
- d. Counseling room (there are tables, chairs, books, media counseling, leaflets, posters, food models, lactation kit).
- e. Lactation room (there are tables, chairs, a sink, mini fridge, leaflets, posters, media promotion).
- f. Detection Growth and Physiotherapy Room (there educational game tool, mattress physiotherapy and physiotherapy equipment).
- g. Playroom (there is game, game mat, educational game tool, reading books children and parents).
- h. The kitchen space to prepare children F100 and supplementary feeding (there are

refrigerators, washing area groceries, cookware fairly complete, and cupboards plates / glassware / cookware).

- i. Counseling room / demo nutrients (there are sound, tables, chairs benches).
- j. The laundry room cookware / dishware and linens.
- k. Supplementary feeding materials warehouse dry.
- l. Hall (floor 2).
- m. Office space (on 2nd floor).

However, in the less exploited better utilization mainly for reading books that can actually increase the knowledge of parenting a toddler barely touched. Educational game tool existing toy as if it were a toy unusual because no officer who directs and guides, such as information obtained:

*"... there is room for children's toys, only toy ordinary ... ya no 'plorotan' , there are swings, balls, and many more ."*

*"... The children is playing by themselves and their mother looking for and feeding milk for them ."*

Research Susanti, EM (2017), stating that the fulfillment facilities and infrastructure such forms Handbook of Children's Services Malnutrition and forms for recording and reporting, media EIC (such as posters, leaflets, flipcharts, booklets, food models) as well as other equipment such as : office stationery, educational game tool, cookware, etc. showed good results. The availability of facilities and infrastructure presence is very important in implementing a health program for infrastructure is a supporting tool to achieve the objectives of a program. In line with the research results Zulaekah, S. (2012), which prove the nutritional knowledge of the sample has increased after the intervention of nutrition education with media booklet.

### Funding and Utilization

Funding for health is one of the important factors in influencing health status, including one of the nutritional problems in infants called malnutrition. The main funding source for the

operation of malnutrition comprehensive examination at Home Nutrition Semarang come from regional expenditure budget of Semarang City and supported also from operational funds health, which is a special allocation fund non-physical from the central government. Its use for the cost of laboratory tests and X-rays, supplementary feeding procurement costs, food costs during the examination officers and parents, help parents of toddlers transport costs, procurement of cutlery and office stationery. In addition, there are some donors who provide direct assistance to the toddler's parents as vitamins or groceries.

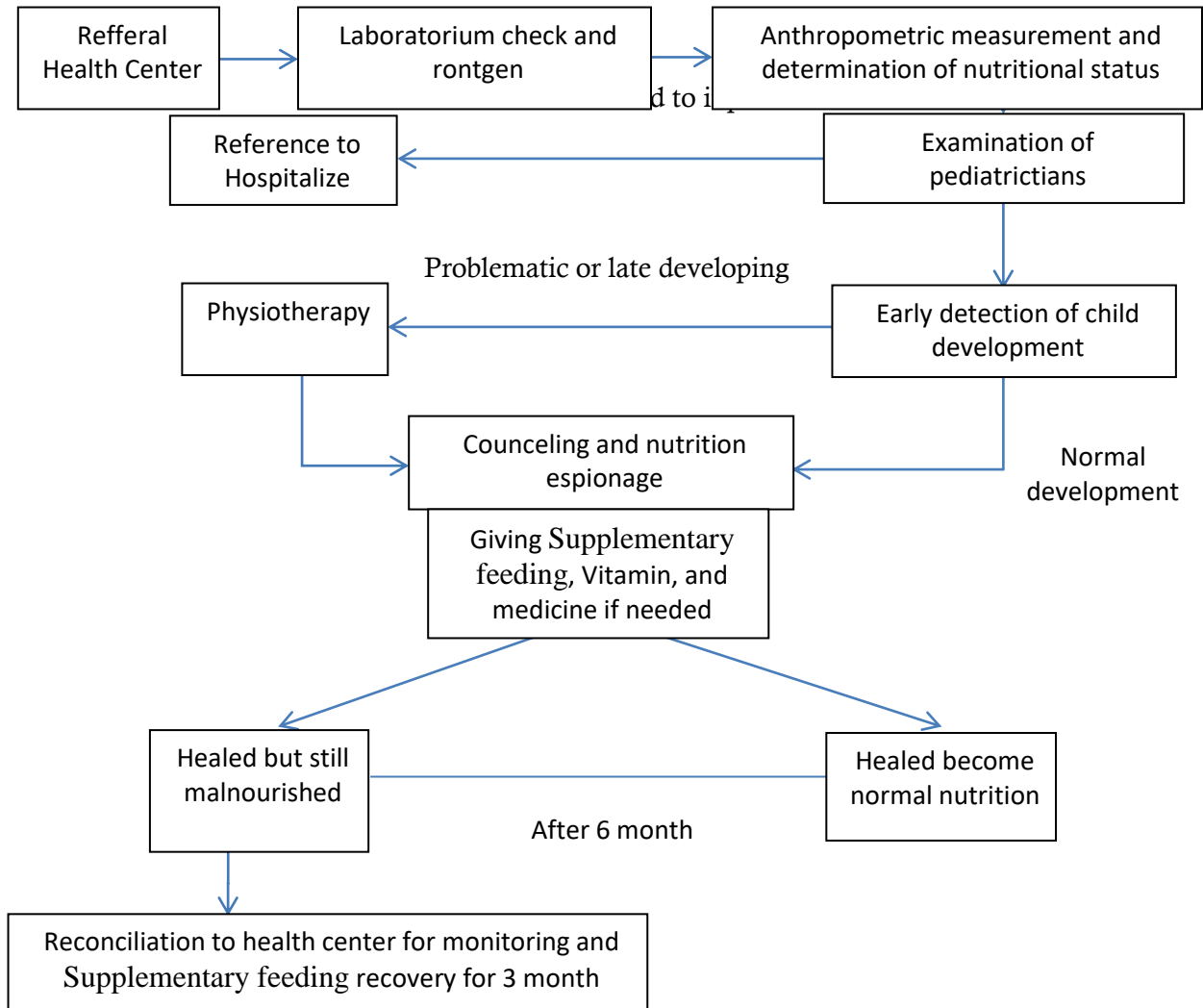
According to Dobell and Ulrich in Tamasoleng, A. (2015), stating that anggaran is a main tool of the government to carry out all the obligations, promises and policies in the planning of concrete and integrated in terms of what activities will be carried out, the target of what will be achieved, how much it cost, and who will pay these costs. The larger the funds allocated to the health program activities, the lower the health problems that occurred.

### Toddler Nutrition Examination actions in recent

According to the Ministry of Health (2007) evaluation of weight children malnutrition outpatient declared intervention is less successful when  $B < 50$  g/kg/week, while the intervention otherwise good or successful if there is an increase  $BB \geq 50$  g/kg/week and evaluate the management of children malnutrition outpatient do between 3-6 months.

Vitamin (2 bottles per month) and medication if necessary. In addition, each child malnutrition children with their parents who came to the house of Nutrition delivered and accompanied by health center officers during the inspection process in the House of Nutrition.

Chronology of malnutrition in a comprehensive examination at Home Nutrition as follows:



**Picture 1.** Plot malnutrition comprehensive examination at Home Nutrition

**Provision of additional food**

Feeding malnourished children referred to the WHO guidelines on the management stage is divided into three stages: stage of stabilization, rehabilitation, and advanced stages. In the stabilization phase of the food given in the form of a liquid, low-calorie and protein foods such as milk formula F-75 and F-100 given in stages to meet the needs of malnourished children. In infants at Home Nutritional all were given extra food therapy F-100. If the child is still breastfed then breast milk remains continue to be provided and coupled with the provision of the F-100 and complementary food for breast milk adequate, but if the child's weight is still below 7 kg (regardless of age), then solid foods (complementary food for

breast milk) is not allowed on the assumption that children weighing less than 7 kg together with healthy children aged less than 6 months when viewed graph of growth in card to health (KMS) so the child only given breast milk alone or coupled with the F-100. Pardosi in Bhaskoro, R. (2013), states that food additives are usually contained a high concentration of carbohydrates and sugar are still difficult to be digested by the baby's digestive organs when administered too early, because the production of particular enzymes amylase in infants is still low. The result is malabsorption in the digestive organs of the baby because of the production of digestive enzymes is still low, as a result would be a gastrointestinal disorder in infants, one of which

is diarrhea. Bhaskoro research results, R. (2013) there is a relationship between early solid foods with diarrhea in infants in hospitals Ambarawa with the strength of the correlation was, and the risk of diarrhea in infants who received solid foods early is 4.44 times higher than babies who are not get solid food early. It's like the results Collins and Sadler in Ethiopia cited by Sulistyawati (2011), that the research carried out by the target patients with severe acute malnutrition (SAM) in an emergency program on an outpatient basis with the package insert therapeutic food ready to eat ready-to-use therapeutic food (RUTF) in paste form which is equivalent to 100 WHO formula. The result is 85% of the children can be recovered,

When asked about how the F-100 from five informants only four people who answered correctly for the quantities of materials in their construction. Only two informants stated that the granting of mineral mix separated by given directly to children such as taking medication. While one informant is not appropriate to make the F-100 at home because oil is not always given to the reasons children do not drink when oiled, but from the observation of the date when the F-100 in the House of Nutrition of the child refused to drink it even takes a little longer. According to the cross-check by looking at records on monitoring books, three children were given the F-100 at home as recommended by your doctor, the child is given more than the recommended amount,

Toddler nutrition consumption of informants as recommended by the nutritional needs of toddlers with an average value of 1131 kcal nutrient calories and 27 grams of protein. According to the Ministry of Health of the Republic of Indonesia Number 75 of 2013 concerning Figures Nutritional Adequacy Recommended for Indonesia so that the age of 0-6 months calories 550 kcal and protein 12 grams, ages 7-11 months calories 785 kcal and protein 18 grams, 1-3 years calories 1125 kcal and 26 grams protein, aged 4-6 years in 1600 kcal calories and 35 grams of protein. Rahim, FK (2014) states that the level of energy and protein consumption is a factor that can directly affecting the nutritional status of children. If there is a deficiency of

progressive energy and protein can cause mucosal damage, and decreased resistance to pathogens. The state of nutritional health depends on the level of adequacy of nutrient consumption of food daily that is determined by the quality of the dishes that showed all the necessary nutrients the body in a balanced arrangement of dishes. Rahayuh, A. (2016) suggests that the consumption of food for each person, especially children must be able to meet their needs. If less food consumption will cause an imbalance in the body's metabolic processes. Similarly, in children under five should it occur continuously can cause impaired growth and development. (2016) suggested that the consumption of food for each person, especially children must be able to meet their needs. If less food consumption will cause an imbalance in the body's metabolic processes. Similarly, in children under five should it occur continuously can cause impaired growth and development. (2016) suggested that the consumption of food for each person, especially children must be able to meet their needs. If less food consumption will cause an imbalance in the body's metabolic processes. Similarly, in children under five should it occur continuously can cause impaired growth and development.

Anthropometric monitoring results showed after 6 months a comprehensive examination in the House of Nutrition, the mean increase in child BB just 0.95 kg, with a range of weight gain of 0.32 kg to 2 kg. This weight measurement results when averaged per month just to gain weight as much as 0.158 kg (or 158 grams / month), only six children who experienced an average weight gain above 200 grams / month. Based on the health card (KMS) healthy child is said to gain weight if weight gain meets the minimum weight increase of 200 grams / month for children older than 1 year. Low weight gain increase appears to be related to the illness of children and of how the package insert F-100 at home. From the interviews it is known that the mother or nanny seems less attention to the advice of doctors and nutrition officer, either the method or the dose in providing the F-100 at home or from children who lack adequate intake. In addition to mothers or caregivers seem to rely on the F-100 was given to the supplementary feeding packets at home

during the recovery program and less in giving other foods to meet the shortage of necessary nutrients children. It seems that the role of supplementary food is given not as an additional (supplement) but rather the substitution (replacement) the child's diet. In addition to mothers or caregivers seem to rely on the F-100 was given to the supplementary feeding packets at home during the recovery program and less in giving other foods to meet the shortage of necessary nutrients children. It seems that the role of supplementary food is given not as an additional (supplement) but rather the substitution (replacement) the child's diet. In addition to mothers or caregivers seem to rely on the F-100 was given to the supplementary feeding packets at home during the recovery program and less in giving other foods to meet the shortage of necessary nutrients children. It seems that the role of supplementary food is given not as an additional (supplement) but rather the substitution (replacement) the child's diet.

At the end of the inspection program malnutrition children in a comprehensive manner at Home Nutrition Semarang obtained the results as much as 47% of infants who were treated had improved nutritional status with the details as much as 5.9% to good nutrition and 41.2% to malnutrition and 52.9 % still poor nutritional condition. Not to achieving the target of malnutrition children who had improved the nutritional status of infants treated can be due to the way in Home Nutrition Semarang besides including acute malnutrition (SAM) also suffer from chronic malnutrition. Allegedly this situation is causing less optimal comprehensive recovery effort outpatient basis indicated by the average weight gain of less than 5 g / kg / day which included a low category. According to WHO categories, Weight increase in malnourished children in the rehabilitation phase when less than 5 g / kg / day, was when 5-10 g / kg / day, and well when more than 10 g / kg / day.

In contrast to the results of research Arnelia (2011) carried out in laboratories P3GM Bogor, the nutritional status of children based on an index weight / length showed improvement towards a better, at 3 months after the recovery is found half of the subjects already categorized as

normal and at the end of the recovery outpatient sample proportions the normal category increased to 73.9%. Research conducted in the UK revealed the success of the outpatient program of up to 85% in the case of SAM with the provision of RUTF.

Research Arnelia, et al. in Nurcahyo, K. (2010) showed as much as 20% of children under five who initially suffered from malnutrition, post-recovery in clinical nutrition (Research Center for Nutrition and Food, Ministry of Health) is still in a state of malnutrition. Nurcahyo research results, K. (2010) the vast majority of children under five (81.5%) is still in the category of malnutrition and only 18.5%, which leads to improved nutrition moderate level. According to research results Nurfatimah (2017) there was no effect of the Therapeutic Feeding Center (TFC) to changes in nutritional status (W / A and H / A) on stunting in Sukoharjo district.

#### **Assistance in the Investigation Malnutrition**

Existing obstacles during the examination of malnutrition in the House of Nutrition that it faced when the examination of malnutrition is a lack of cooperation with the parents of malnutrition in the implementation of the therapy should be given. As if the examination of malnutrition are the interests of the Health Service, the parent toddlers less attention and do not implement fully the suggestions to be done at home for babies.

Besides the health centers only provide guidance personnel while in the House of Nutrition just so prescriptions from doctors for at home are not implemented properly. As well as the attendant is less than optimal to provide services nutrition counseling for personnel that administer the task of counseling less, although actually be assisted by a trained nutritional health centers which became the companion of parents malnutrition, but not run well because the officers nutrition a companion was already quite busy with his duties, In an effort to repair poor nutrition, the role of a counselor is very important to improve the knowledge and behavior of parents / caregivers of children. Intervensi given nutritional counseling had significant efficacy against nutritional recovery.



### Clean Healthy Habits

Obtained information that they always wash in their hands was before preparing meals or milk for children. But handwashing for children before eating has not become a habit.

“...yes, wash hands first, use soap.”

“...sometimes the children eat the biscuits right away, they don't play dirty Ma'am.”

There is a habit of cleaning the house with sweeping and mopping in all rooms of the house every day at least once a day and often more than once a day. Information puskesmas officers say that the house inhabited by a toddler who accompany cleanliness is lacking, only has 1 bedroom, 1 ballroom, 1 bathroom / toilet / sink and storage areas not covered cutlery.

“...every day Ma'am, cleaning the room in the morning, sweeping mop. ... if you cook using buy water.”

### CONCLUSION

Infrastructure at Home Nutrition is complete, according to its competence in charge of human resources, and patient adherence to a programmed inspection circuit quite well. There needs to be a special officer who only served in the House of Nutrition so that officers are not tied to work at the job site of origin. Need to increase in the provision of nutritional counseling as well as assistance for families because of the implementation of the recommended drinking toddler F-100, the provision of food at home, and Clean Healthy Habits still lacking.

Strategies that can be implemented to improve the results of the inspection program malnutrition children that bring the inspection program malnutrition children to a regular meeting of the city and formed a response team malnutrition across sectors defined by the Mayors, involving the participation of all organizational healthcare professionals and academics involved in the increase EIC and implement family assistance for children malnutrition, as well as actively involving the

community in the prevention of malnutrition children.

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