P-05

STUDY OF MOTHERS CHARACTERISTICS AND BEHAVIOR IN FAMILY NUTRITION AWARENESS IN AMBARKETAWANG, GAMPING, SLEMAN

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ABSTRACT

Indonesia still has many malnutrition problems, such as less of vitamin A, iron deficiency anemia, and less iodine disorder. One of government Efforts to tackle problems of malnutrition is increasing nutritional status of household through family nutrition-awareness program. In Sleman percentage of Kadarzi is 65% and in Ambarketawang is 90.89%. This research aims to know characteristic of mothers (education and job) and family behavior in applying Kadarzi. This is descriptive research include observational research with *cross sectional* study design. 36 families in Ambarketawang, Gamping, Sleman were chosen as samples of research. Data were collected by interviewing mothers using a questionnaire and Iodine test. 52.8% families did not apply Kadarzi family behaviors. Reviews those were weighing toddlers regularly, giving exclusive breastfeeding and consuming various foods. Achievement of Kadarzi behavior in families with highly educated mother was higher than families with a mother who had basic education, as well as in families that did not apply Kadarzi well. Achievement of Kadarzi behavior in families with house-wife mother was higher than a working mother, as well as in families that did not apply Kadarzi yet.

Keywords: Education, Job, Mother, Kadarzi behavior

BACKGROUND

In Indonesia there's also the problem of nutrition. Such as malnutrition, lack of vitamin A, iron deficiency Anemia (AGB), Less Iodine Disorders (GAKI) and obesity. Nutritional problem becomes one of determining the quality of human resources. These nutritional problems occur during life cycle begins in the womb (fetal), infant, child, adult and elderly. If early in life toddlers do not aware the importance of nutrition behavior, then it may interfere with the growth and development positively and can reduce health condition [1.]

Riskesdas 2013, from 33 provinces in Indonesia Yogyakarta has a percentage of underweight children based on body weight for age is 16.2% [2.]. In Sleman district contained 4.29% underweight children consist of 0.37% malnourished children and 3.92% children with malnutrition. The prevalence of malnutrition in Sleman comparatively low, but it is still a problem for public health [3.]

According to Law No. 17 of 2007 on the National Long-Term Development Plan of 2005-2025, one of government's efforts in addressing issue of nutrition is to improve human resource development, improving public health and nutrition through improved nutritional status of family, by increasing nutrition services through Family Nutrition Aware (Kadarzi) [4.] From 2 villages in Gamping I Public Health Center (PHC), percentage of Kadarzi is various in Ambarketawang and Balecatur .Based on preliminary survey, achievement Kadarzi in Ambarketawang is quite high, but 3.5% of children 0-23 months are under red line (BGM) and 2 infants suffered malnutrition[5.] This study aims to know mother's characteristics (education

and job) and family behavior in applying family Nutrition Aware (Kadarzi) in Ambarketawan Gamping Sleman.

METHOD

This is an observational research with descriptive and using *cross sectional* design. This research was conducted in Ambarketawang, Gamping Sleman on May-June 2016. Population was all family of children who live in Ambarketawang, Gamping Sleman. Sample were chosen using *cluster random sampling* based on location of north and south sides Geographically from Wates street, then selected six hamlets of area as a place of a study and randomly selected sample of six hamlets. Samples in this study are 36 families of toddlers. Criteria families as sample are family with a toddler who lived and cared by mother.
Variable in this research include mother's Characteristics (Education and Job), Achievement Kadarzi, Families behavior in; weighing infants regularly, exclusive breastfeeding in infants, varied food consumption, use of iodized salt, and giving vitamin A in infants. Data was collected through interviews using questionnaires and tests iodine. Instrument used in this study are stationery, Approval After Explanation (PSP), *informed consent,* questionnaires and tests iodine. Data were analyzed descriptively in a frequency distribution table.

RESULTS AND DISCUSSION

Research Location

Ambarketawang located in Gamping, Sleman, Yogyakarta with an area of 6,358,975 m^2 and consists of 13 hamlets; Mejing Lor, Wetan Mejing, Mejing Kidul, Gamping Lor, Gamping Tengah, Gamping Kidul, Patukan, Bodeh, Tlogo, Depok, Kalimanjung, Mancasan and Watulangkah.

Table 1. Distribution of Population Ambarketawang based Education

Education	Population (people)	%
Can't read and write	7	0.07
Not completed primary school	307	3.04
primary school	1701	16.85
junior high school	1738	17.21
Senior high school	5259	52.08
High school	1085	10.75
Total	10 097	100

Source: Profile Ambarketawang 2014

Table 1 shows most of population in Ambarketawang completed senior high school 52.08%, junior high school 17.21%, 16.85% finished primary school, graduated from high school 10.75%, 3.04% did not complete primary school. While at least that 0.07%. people can't read and write

Table 2. Distribution of Population Ambarketawang based on Job

Work	Population (people)	%
Farmer	206	12.75
Farm workers	269	16.66
PNS / TNI / Police	672	41.61
Self Employed / Traders	147	9.10
Private employees	321	19.88
Total	1615	100

Source: Profile Ambarketawang 2014

Table shows job of population in Ambarketawang most of them as PNS / TNI / Police 41.61%, private employee 19.88%, 16.66% farm workers, farmers and 12.75% and entrepreneur / trader 9.10%.

Characteristics of Respondents Research

Table 3. Distribution of Respondent Based on Education

Education	Frequency (n)	Percentage (%)
higher education	28	77.8
basic education	8	22.2
Total	36	100.0

Sources: Primary data 2016

Table 3 shows majority (77.8%) of mothers have higher education that have completed high school and graduated from university and 22.2% mother who have with basic education that graduated from elementary school and junior high school graduation. Education is a learning experience that aims to influence knowledge, attitudes and behavior [8]. Relation low parental education will lead to limited understanding of nutritional health problems [8].

Table 4. Distribution of Respondent Based Jobs

Work	Frequency (n)	Percentage (%)
Work	14	38.9
Does not work	22	61.1
Total	36	100.0

Sources: Primary data 2016

Table 4 shows the majority (61.1%) of mothers did not bekarja or as housewives and mothers are 38.9% work. Works included in source of family income, where a family with a regular job would be relatively secure earnings every month. If families do not have a regular job, then family income each month can't be ascertained. Works closely related to salary received, higher position leads their higher salary to meet food needs of family [9].

Someone who has a job with a pretty solid time will affect to carry her children. One of them is level attendance in Posyandu. In general, parents do not have free time to take their children, so higher activity of job lead difficult to come to Posyandu [10].

Table 5. Distribution of Achievement Kadarzi Based on Hamlet

Village	Implementation				Total	
	Kadarzi		Not Kadarzi			
	n	%	n	%	n	%
Gamping Kidul	3	50.0	3	50.0	6	100.0
Gamping Lor	2	33.3	4	66.7	6	100.0
Gamping Tengah	2	33.3	4	66.7	6	100.0
Mancasan	3	50.0	3	50.0	6	100.0
Mejing Lor	3	50.0	3	50.0	6	100.0
Tlogo	4	66.7	2	33.3	6	100.0

Sources: Primary data 2016

Table 5 shows the highest achievement Kadarzi in hamlet Tlogo (66.7%). While the lowest target on village Gamping Lor and Gamping Tengah (33.3%). Data were taken from two areas, north side of Wates Street (hamlet Gamping Tengah, Gamping Lor and Mejing Lor) and south side of Wates Street (hamlet Gamping Kidul, Mancasan and Tlogo). This result suggests that achievement Kadarzi in north side of Wates Street is lower than south side. South side is southern region Ambarketawang area of Gamping hills or mountains.

Table 6. Distribution of Achievement Kadarzi Ambarketawang

Parameter	Frequency (n)	Percentage (%)
Not Kadarzi	19	52.8
Kadarzi	17	47.2
Total	36	100.0

Sources: Primary data 2016

Table 6 shows majority (52.8%) have not implement behavior Kadarzi families and 47.2% of have applied Kadarzi behavior. This is consistent with research on assessment of knowledge and behavior about Kadarzi mother, with result that sample studied shows results of achievement of family behaviors that have applied behavior Kadarzi lower than families that have not implemented behavior Kadarzi [11].

Kadarzi achieved by applying a minimum of five indicators. If one of the five indicators have not been done, family can't be categorized as Kadarzi [12].Kadarzi families who have a family that has not been able to identify and address nutritional issues family members. Attitude and practice of the family has not been guided by a balanced nutrition and healthy behavior. This can lead to problems of nutrition and health in the family. Such as growth disorders toddler, Protein Energy Malnutrition (PEM), Less Iodine Disorders (IDD) and Lack of Vitamin A (KVA).

According to Law No. 17 of 2007 on the National Long-Term Development Plan of 2005-2025, one of the government's efforts in addressing issue of nutrition is to improve human resources development, improving public health and nutrition through improved nutritional status of families, one of them with programs of education on importance of family aware of nutrition to improve the nutritional status of family [4].

Family Behaviour Based Indicators Kadarzi

Table 7. Distribution of Family Based on Behavior Weighing Toddler Regularly

Weighing Weight Toddlers Regularly	Frequency (n)	Percentage (%)
Good	24	66.7
A Not Good	12	33.3
Total	36	100.0

Sources: Primary data 2016

Table 7 shows majority (66.7%) of families apply weighing toddlers regularly. In line with research about relationship of knowledge and behavior about Kadarzi mother factory workers with nutritional status of children under five, which shows that most of sample weighing implement a toddler on a regular basis [13]. However, these results have not yet reached target participation rate indicator (84%) toddlers come to Posyandu once a month (D / S) of Gamping I PHC, to improve achievement of participation is adding extension used media is using posters and flip charts to enhance participation and understanding of participants counseling about importance of monitoring children's growth through neighborhood health center, so the goal can be achieved [5].

Monitoring children development can be done from birth until children reaches five years is by weighing on a regular basis. The rate of growth and development of children can be monitored through measurements of several physical dimensions, weight. The weight gain children can be shown within a month. Therefore, child must be weighing every month. If on a month children do not go up, it shows growth retardation children [8].

Table 8. Distribution of Family Based Behavior Exclusive Breastfeeding

Exclusive breastfeeding	Frequency (n)	Percentage (%)
Good	23	63.9
A Not Good	13	36.1
Total	36	100.0

Sources: Primary data 2016

Table 8 shows majority (63.9%) have implemented family of exclusive breastfeeding in infants and only 36.1% of families who have not applied exclusively breastfeeding infants. This is consistent with research on assessment of knowledge and behavior about Kadarzi mother, that most of sample has implemented the behavior of exclusive breastfeeding in infants [11]. Result shows scope of Exclusive breastfeeding have not reach targets (80%). Need efforts to improve achievement Exclusive breastfeeding. [5]

Table 9. Distribution Toddler Based Giving First Time Beverages / Food In addition to breast milk

Giving First Time Beverages / Food In addition to breast milk	Implementation				Total	
	Yes		No			
	n	%	n	%	n	%
0 months	3	8.3	33	91.7	36	100.0
1 months	4	11.1	32	88.9	36	100.0
2 months	4	11.1	32	88.9	36	100.0
3 months	7	19.4	29	80.6	36	100.0
4 months	9	25.0	27.0	75.0	36	100.0
5 months	13	36.1	23	63.9	36	100.0
6 months	34	94.4	2	5.6	36	100.0

Sources: Primary data 2016

Table 9 shows 8.3% toddlers are given drinks / foods besides breast milk at age of 0 months and there were 36.1% children has been given a drink / food other than breast milk in less than 6 months of age. Based on interviews, various problems faced by mothers so that they fail to provide exclusive breastfeeding to children between because milk that comes out is not smooth, busy mothers and their perception where situation of children who are always crying assumed hungry.

Food and drink other than breast milk given too early (less from 6 months) may endanger the health of infants. Food or drink (even water) is likely to carry germs that cause infections (diarrhea). In addition, provision of breast-milk substitutes too early can increase risk of children suffer from Protein Energy Malnutrition (PEM) because child's digestive system is not ready to process food[14]. Breastfeeding routine is recommended for babies from newborn until the age of 2 years, because no single man can milk exceed nutritional content of breast milk [15].

Table 10. Distribution of Family Based Food Consumption Behavior Various

Food Consumption Behavior Various	Frequency (n)	Percentage (%)
Good	26	72.2
A Not Good	10	27.8
Total	36	100.0

Sources: Primary data 2016

Table 10 shows majority (72.2%) families have implemented diverse food consumption behavior and 27.8% families have not implemented a various food consumption. This is not fit with Octaviani about relationship of knowledge and behavior about Kadarzi labor mother with nutritional status under five, with result that majority (76.9%) have implement various food consumption [13].

Consumption of a variety of foodstuffs for infants may warrant completeness necessary nutrients the body, because each food contains different nutrients sources in terms of type and number [1]. The age of first and second year after baby is born is a period where baby should be be given food regulated appropriately and correctly, so that child's needs can be met and child can grow and develop optimally. No food has a complete nutritional content, it is necessary to consume a various foods, nutritionally balanced and safe in order to fulfill nutritional adequacy of individuals to grow and develop [16].

Table 11. Distribution of Family Based on Usage Behavior Iodized Salts

Behavior Usage iodized Salt	Frequency (n)	Percentage (%)
Good	36	100.0
A Not Good	0	0
Total	36	100.0

Sources: Primary data 2016

Table 11 shows behavior of families in implementing use of iodized salt for cooking which reach 100%. These results are in line with research on assessment of knowledge and behavior about Kadarzi mother, that all samples studied have implemented use of iodized salt [11].

Behavior of iodized salt consumption is one effort to prevent Less Iodine Disorders (IDD). In addition, iodine in salt also has an important function for the human body [1]. Iodine deficiency is prolonged will disrupt function of thyroid gland that gradually causes enlargement of thyroid gland. In this case the fetus can get cretinism and death, case in children, adolescents and adults can cause goiter, hypothyroidism, and mental disorder. Successful achievement of behavior of the use of iodized salt is not out of the iodized salt program of the government, so that all salt that is distributed in Indonesia already contains iodine [17].

Table 12. Distribution of Family Based Vitamin A Capsule Consumption Behavior in Toddlers

Consumption behavior of Vitamin A in Toddlers	Frequency (n)	Percentage (%)
Good	36	100.0
A Not Good	0	0
Total	36	100.0

Sources: Primary data 2016

Table 12 shows behaviors in giving capsules vitamin A in toddlers in previous year were optimal, reaching 100%. In line with research Melati et al (2014) study on knowledge and behavior about Kadarzi mother, that all samples implemented give vitamin A in infants [11]. The success of achievement behavior of consumption vitamin A supplementation showed a high awareness and willingness to make program successful distribution vitamin A supplementation in young children, pregnant women and role PHC and cadres of posyandu in support this program. Posyandu cadres have responsible to do home visit to under five if infants are not coming to Posyandu during month administration of vitamin A.

Vitamin A is an essential nutrient that can only be filled from outside the body. Vitamin A serves to prevent immune deficiencies that can lead to body vulnerable to infection. Lack of Vitamin A (KVA) is one of nutritional problems that frequently occur in Indonesia. As a result of vitamin A deficiency can cause night blindness and blindness. How to prevent and to treat vitamin A deficiency is consumption of foods contain high vitamin A, such as chicken liver, green vegetables and colorful fruits. Another way to do is giving high-dose vitamin A capsules, which is given to children every 6 months [16].

Educational attainment Kadarzi Based Respondent

Table 13. Distribution Kadarzi Based on Mothers Education

Mothers Education.	Achievement Kadarzi			
	Kadarzi		Not Kadarzi	
	n	%	N	%
higher education	14	82.4	14	73.7
basic education	3	17.6	5	24.4
Total	17	100.0	19	100.0

Sources: Primary data 2016

Table 13 shows that 82.4% families with highly educated mothers behave Kadarzi and 17.6% of families with basic education mothers. Achievement Kadarzi in family with educated mother can reach higher than basic education in mother. A person's behavior or public health is not only determined by knowledge (education), but is also determined by attitudes, beliefs, tradition of people or communities concerned. In addition, availability of facilities for health such as health centers, hospitals, nutritious food and money will support and strengthen formation of behavior [18].

Educational attainment Kadarzi Based Respondent

Table 14. Distribution Achievement Kadarzi Based Mothers Work

Mothers Work	Achievement Kadarzi			
	Kadarzi		Not Kadarzi	
	n	%	n	%
Work	7	41.2	7	36.8
Does not work	10	58.8	12	63.2
Total	17	100.0	19	100.0

Sources: Primary data 2016

Table 14 shows that 41.2% of families with working mothers do behavior Kadarzi and 58.8% of families with mothers who did not work do behavior Kadarzi. Achievement Kadarzi in families with mothers who did not work is higher than in families with working mothers. In general, families are busy with their work and don't have free time to carry out their children, so higher activity of job affect more difficult to come to Posyandu[10].

A person's health behavior is not only determined by knowledge (education), but also determined by attitudes, beliefs, tradition of people or communities concerned. In addition,

availability of facilities to increase health behaviors such as health centers, hospitals, nutritious food and money will also support and strengthen the formation of behavior [18].

CONCLUSION

1. Achievement Kadarzi in Ambarketawang is 47.2%
2. Achievement of family behavior in weighing infants regularly is 66.7%
3. Achievement of family behavior in exclusive breastfeeding of 63.9%
4. Achievement of family behavior in serving various food consumption is 72.2%
5. Achievement of family behavior in usage of iodized salt 100.0%
6. Achievement of family behavior in applying consumption of vitamin A supplements for under fives is 100.0%
7. Family with mother's higher education has greater achievement in Kadarzi than family with mother's lower education.
8. Achievement Kadarzi behavior in families with mothers who do not work is higher than mothers who do not working.

SUGGESTION

It is needed to improve counseling about importance Kadarzi especially on aspects of weighing and growth monitoring of children, exclusive breastfeeding and various food consumption.

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