Food Research 6 (5) : 48 - 55 (October 2022)
Journal homepage: https://www.myfoodresearch.com

FOOD RESEARCH

FULL PAPER

Association of mothers' child feeding knowledge, attitude, and practices with nutritional status of children under the age of five in a Malaysian fishing community: a cross-sectional study

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Article history:
Received: 19 September 2021
Received in revised form: 28 October 2021
Accepted: 28 February 2022
Available Online: 4 September 2022

Keywords:
Child Feeding,
Fishermen,
Nutritional Status,
Terengganu,
Malaysia

DOI:
https://doi.org/10.26656/fr.2017.6(5).640

Abstract

Mothers' nutritional knowledge, attitudes, and practices are critical to ensuring that they can feed their children in accordance with proper child feeding guidelines, hence preventing undernourished children. However, there has been little research into mothers' knowledge of feeding, attitudes, and practises in fishing communities, notably in Terengganu, Malaysia. The purpose of this cross-sectional study was to analyse mothers' children's nutritional knowledge, attitudes, and practices, as well as their relationship to the nutritional status of fishermen's children under the age of five in Terengganu. This study was conducted through a home visit with 60 mothers and 60 children aged 2-4 years (55.0% girls, n = 33; 45.0% boys, n = 27). Mothers' nutritional knowledge, attitude, and practice were examined using adapted questionnaires, while child nutritional status was measured using height-for-age and BMI-for-age assessments. All of the mothers had an educational background, with at least 5.0% (n = 3) attending primary school, 85% (n = 51) attending secondary school, and 10.0% (n = 6) finishing higher tertiary education, as per results. According to the data, most mothers have good knowledge (68.3%, n = 41), a positive attitude (71.7%, n = 43), and good practises (71.7%, n = 43) when it comes to child feeding. The majority of children had normal BMI (63.3%) and height for their age (91.7%). There was no relationship found between the mother's child feeding knowledge ($p = 0.342$, $r = -0.125$), attitude ($p = 0.357$, $r = 0.121$), and practises ($p = 0.587$, $r = 0.073$) and the children's BMI-for-age. Mothers' knowledge of child feeding ($p = 0.627$, $r = 0.064$), attitude ($p = 0.9982$, $r = -0.002$), and practises ($p = 0.709$, $r = -0.049$) were likewise unrelated to children's height-to-age. A comprehensive approach including parents, communities and government agencies should be established to enhance mothers' child-feeding knowledge, attitudes, and practises, particularly among low-income families.

1. Introduction

Child undernutrition has become a serious issue since it can result in death among young children. The malnutrition issue has recently received significant attention in Malaysia for children under the age of five (Bahtiar *et al.*, 2021) because the prevalence of stunting among children under five years old in Malaysia was 20.7%, wasting about 11.5% and overweight at 6.0%, respectively (World Health Organization, 2018). For children under five years of age in Terengganu, the prevalence of stunting was considered to be high (26.1%), significantly higher than the national prevalence, which is 20.7% (National Health and Morbidity Survey (NHMS), 2016). Most of the studies in Malaysia related to malnutrition of children under five years of age focused only on some vulnerable communities but less on the fishing communities (Nutrition Research Priorities, 2016). Fishermen are one of the vulnerable community groups where children are more susceptible to malnutrition. According to Teh *et al.* (2016), of 165 fishermen involved in the survey, about 75 fishermen with income were less than RM500. Low-income leads, therefore, to poor access to healthy food. The children from the family of fishermen were exposed to nutritional problems such as wasting, stunting, and undernutrition (Chee *et al.*, 2002; Chua *et al.*, 2018; Asma' *et al.*, 2020).

In Malaysia, the abundance of studies conducted on

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eISSN: 2550-2166
Published by Rynnye Lyan Resources

mothers' children under five years focused more on mothers' breastfeeding, less on mothers' knowledge of feeding, attitudes, and practices. This study has become one of the priorities in Nutrition Research Priorities (NRP) in Malaysia for 2016-2020. It is apart from Area 1: Maternal, Infant and Young Child Nutrition. This study involves studying fishermen's children under five years old in determining their nutritional status that is compatible with their Purpose B: Determine the nutritional status of infants and young children. Other than that, this study can also be the benchmark for the National Plan of Action for Nutrition for Malaysia, NPANM (2016-2025), as it will determine the prevalence of stunting for children under five years among the vulnerable community. The NPANM could benefit from this study to monitor the trend's nutritional status under five if it reaches the goal of having a prevalence of not more than 11% by 2025. The study is essential because the focus of scarcity is on mothers' knowledge, attitude and practices and on the nutritional status of children under five years of age. Therefore, this study aimed to determine the mother's child feeding knowledge, attitude, and practices and its relation to the nutritional status of fisherman children under 5 years in Terengganu.

2. Methodology

2.1 Study design, study location and respondent recruitment

The cross-sectional study was therefore conducted to estimate population parameters such as malnutrition prevalence among children. In this cross-sectional study, a non-probability sampling method was applied. Convenience sampling was used for sampling areas when a sampling technique involves the selection of a specific sample. The area was also selected based on the fishers' households. The sample size was calculated with a 95% confidence interval and a 10% margin of error. The prevalence was based on the stunting prevalence in Terengganu among children under 5 years of age which was 20.7%. The final sample size of this study is 60 mothers. Sixty mothers were to take part in snowball sampling research through their home visits. Mothers and children in fishing families in Kuala Nerus and Kuala Terengganu were recruited. Mothers were required to fill in the KAP questionnaires by selecting mothers who had children between 2 and 4 years of age. Mothers also signed a consent form before participating in this study. Ethical approval was obtained from Universiti Malaysia Terengganu Human Research Ethics Community: JKEPM/2019/37.

2.2 Research instrument

The self-administered questionnaire was adapted with modification from previous studies and consists of five sections: the sociodemographic profile, children's nutritional status, mother's knowledge, attitude and practises (KAP) of feeding a child. The sociodemographic section involved seven questions: age, occupation, level of education, race, religion, marital status, and child count. The children's age and gender data have been used to determine the children's anthropometry assessment. The KAP questionnaire was adapted from a child feeding questionnaire (CFQ) (Birch and Fisher, 2000), a child feeding practises (CFPQ) (Musher-Eizenman and Holub, 2007), and also adapted from the KAP Manual Guidelines for the evaluation of knowledge, attitude and practised related to nutrition (FAO, 2014). The KAP questionnaires in this study were divided into three main measurement questions; 12 questions on mother's feeding knowledge, nine questions on mother's attitude to child feeding and finally, 13 questions on mother's feeding practices. The knowledge of a mother feeding children is composed of 12 questions: three questions about the mother's knowledge of child food intake, five questions about the mother's knowledge about undernutrition and the remaining four questions concerning the mother's knowledge of overweight children. The reply to each item is provided with "yes," "no", and "not sure" in three categorical responses to be chosen (Remali *et al.,* 2019). The correct answer received 1 point while the wrong and not sure answer received 0 points. The scoring for this part is through the overall score; ≥11 indicates good knowledge, score 5-10 indicates medium knowledge, and score ≤ 4 indicates poor knowledge (Herath *et al.,* 2017). Mother's child feeding attitude compromise of nine items adapted from the Child Food Framework (Birch and Fisher, 2000) and the KAP Manual Guidelines for the Knowledge, Attitude and Practices Evaluation of Nutrition (FAO, 2014). It consists of two positives (item 2 and 3) and seven negative questions (item 1, 4, 5, 6, 7, 8, and 9) with five Likert scoring systems: 5-always, 4-mostly, 3-sometimes, 2-rarely and 1-never. Scorings below 30 (below 25th percentile) indicate a negative attitude. In the meantime, the score equal to or higher than 30 scores, which is more than the 25th percentile, is positive. Overall scores range from 9 to 45, and higher scores indicate a higher attitude level (Sugathan and Swaysi, 2013). CFQ and CPFQ questionnaires have been developed for maternal child feeding practices (Birch and Fisher, 2000; Musher-Eizenman and Holub, 2007). A total of 13 questions were asked: four positive items (items 1, 4, 8 and 9) and nine negative items (2, 3, 5, 6, 7, 10, 11,12 and 13) related to mother feeding practices. A five-point Likert scale is used: 5-always, 4-mostly, 3-

sometimes, 2-rarely and 1-never. The scale of each positive item was vice versa with negative items. The higher scoring from total scores shows a higher frequency of practice, while lower scoring from low frequency shows poor practice (Romanos-Nanclares *et al.,* 2018). The less than 48 scores (less than the 25th percentile) reveal poor practice, whereas 48 scores equal to or greater than the 25th percentile reveal the mother's positive practises. The internal consistency of the KAP is performed through Cronbach's alpha coefficient to ensure the items measure the same concept connected to the inter-relatedness of items in the test (Tavakol and Dennick, 2011). In general, Cronbach's alpha coefficient between 0.6 and 0.7 indicates an acceptable level, and 0.8 or greater states an excellent level of reliability (Pallant, 2011). The reliability analysis of the knowledge, attitude and practice section was 0.799, 0.653, and 0.674, respectively, indicating an acceptable reliability value. Overall, the KAP questionnaire developed is a reliable questionnaire that can serve as an evaluation tool for measuring knowledge, attitudes, and the practice of child feeding practices among mothers.

2.3 Anthropometry assessment

Child height-for-age and BMI-for-age were assessed through anthropometric measurement. The body height was measured to the nearest 0.1 cm by using the SECA stadiometer (SECA 225, Germany). The respondent was asked to stand near the stand without stocking and shoes, and they also need to look straight ahead and with feet flat with heels almost together touching the measurement board (Mohd *et al.,* 2015). The body weight was measured using Tanita digital weight scale (Tanita Bioelectrical Impedance Analysis BC-541, Japan). The WHO Anthro Calculator version 3.2.2 was used to calculate the body mass index (BMI) and interpret the result for height-for-age and BMI-for-age of the children.

2.4 Data collection

A total of 60 mother-child pairs from fisherman's households were involved. Data collection was carried out through a home visit where the respondents were approached personally in the area selected. Before starting data collection, a screening process was conducted where only mothers with children between the age of two to four years, healthy and voluntary to participate, are eligible for this study. The respondents also needed to sign an informed consent letter before data collection. A token of appreciation is given at the end of the study.

2.5 Data analysis

SPSS software version 20 was used for data analysis. A normality test was carried out before data analysis. The descriptive statistics were run to analyse the socio-demographic of the mothers, children's gender and nutritional status, mother's child feeding knowledge (K), attitude (A) and practices (P). All descriptive statistics were presented in percentage (%) and mean standard deviation and median, interquartile range form. Lastly, inferential statistics were used to examine the questions relate to the mother's child feeding with the nutritional status of the children. Spearman rank order was used to determine the strength of the relation between the KAP items and the relationship between KAP and the nutritional status of the children as the data were not normally distributed.

3. Results

3.1 Socio-demographic data

About 51.7% (n = 31) of the mothers were between the ages of 25 and 34, 38.4% (n = 23) were between the ages of 35 and 44, 6.7% (n = 4) were under the age of 25, and just 3.3% (n = 2) were above 45 (Table 1). The average age of respondents is 33.00 (6.30). This reflects the fact that the majority of the mothers were young adults. All of the respondents (100%, n = 60) were Malay and Muslim. All mothers had a formal education; at least 5% (n = 3) had completed primary school, 85% (n = 51) had completed secondary school, and 10% (n = 6) had completed tertiary education. The average number of people in a household is 5.00 (3.00). Over half of all fisherman households make less than RM1500 per month (93.3%). The majority of mothers did not work (88.3%), while the remainder worked as a seller, store assistants, or caregivers to support their family's income.

3.2 Anthropometry assessment on children

A total of 45.0% (n = 27) were boys, and 55.0% (n = 33) were girls. Over half of the children had normal BMI -for-age (63.3%). It is apparent from Table 2 data that the children had normal height-for-age (91.7%). About 6.7% of the children reported stunting, and 1.7% had severe stunting. Meanwhile, there were 25.0% and 11.7% of children were wasted and severely wasted, respectively.

3.3 Mother's child feeding knowledge

The findings revealed that the mother had good knowledge by correctly answering each item (as presented in Table 3). Three of the 12 knowledge items received incorrect responses from more than 20% of respondents: item 1 (25%), item 4 (21.7%), and item 11 (25.0%). Item 1 inquires whether children who do not eat before going to school have short attention spans. Item 4

Table 1. Socio-demographic characteristics of mothers and their knowledge, attitude and practices of child feeding scores (n = 60)

Characteristics	Frequency n (%)	Median (IQR)
Age		
< 25	4 (6.7)	33.00 (6.30)
25-34	31 (51.7)	
35-44	23 (38.4)	
≥ 45	2 (3.3)	
Education level		
Primary school	3 (5.0)	
Secondary school	51 (85.0)	
Certificate/STPM/Diploma	4 (6.7)	
Degree	2 (3.3)	
Education level of husband		
None	2 (3.3)	
Primary school	12 (20.0)	
Secondary school	43 (71.7)	
Certificate/STPM/Diploma	3 (5.0)	
Number of members in household		
< 5 persons	35 (58.3)	5.00 (3.00)
6 - 8 person	18 (30.0)	
> 9 persons	7 (11.7)	
Marital status		
Married	60 (100.0)	
Household income		
<RM1500	56 (93.3)	
RM1500-RM2999	4 (6.7)	
Occupations		
Seller	2 (3.3)	
Stall assistant	3 (5.0)	
Caregiver	1 (1.7)	
Housewife	50 (83.3)	
Others	4 (6.7)	
Mothers knowledge score[a]		
Good (≥ 11 points)	41 (68.3)	10.27 (2.32)
Medium (5-10 points)	18 (30.0)	
Poor (< 4 points)	1 (1.7)	
Mothers attitude score[b]		
Negative (< 30 points)	17 (28.3)	32.27 (3.65)
Positive (≥ 30 points)	43 (71.7)	
Mothers practices score[c]		
Good (≥ 48 points)	43 (71.7)	51.05 (5.43)
Poor (< 48 points)	17 (28.3)	

[a]Range for knowledge score = Min score: 0 points, maximum score: 12 points
[b]Range for attitude score = Min score: 9 points, maximum score: 45 points
[c]Range for practices score = Min score: 13 points, maximum score: 65 points

Table 2. Children's gender and nutritional status (n = 60)

Characteristic	Frequency (%)	Median (IQR)
Gender		
Boy	27 (45.0)	
Girl	33 (55.0)	
Height-for-age (z score)		
Normal	55 (91.7)	-0.51 (1.87)
Stunting	4 (6.7)	
Severe stunting	1 (1.7)	
BMI-for-age (z score)		
Normal	38 (63.3)	-1.67 (1.53)
Wasted	15 (25.0)	
Severely wasted	7 (11.7)	

said that children who are tired show a lack of nourishment. In response to question 11, one-third (25%) of those respondents were unaware that an excess of high-fat, energy-dense meals is one of the causes of overweight or obesity. In total, 68.3% of mothers had good knowledge of child feeding, 30.0% had medium knowledge, and 1.7% had very little knowledge.

3.4 Mother's child feeding attitude

According to Table 4, the majority of mothers responded "agree" to the positive attitude question for item 2. Meanwhile, more than 43.0% of mothers indicated a "disagree" response to item 3, showing a positive attitude. Item 3 refers to instances in which children assert that they are not hungry and the mother must urge them to eat regardless. Over 60.0% of mothers "disagree" with the negative items (item 1, 4, 5, 6, 7, 8, 9). Meanwhile, the highest percentages of "agree" replies were given to questions 7 and 9 (more than 20.0%). Item 7 pertains to the mother supplying larger servings to her children, whereas item 9 inquires as to whether the mothers were required to feed their children at the proper mealtime. When it came to feeding their children, around 26.7% of parents failed to stick to the recommended meal times.

3.5 Mother's child feeding practices

Table 5 depicts the mother's practice section for feeding the child. Almost half of the mothers said they "always" practised the positive practices for items 1, 4, 8, and 9 around seven times per week. Overall, mothers are more likely to engage in positive practices. For example, 66.7% always prepare meals for their children. Almost half of the mothers also keep track of their children's snack intake, make something else when their children refuse to eat the meal, and encourage their children to consume a variety of foods. As a result, we can observe that the mother is constantly worried about what their children consume regularly. According to the study, mothers gave high-fat meals and sugary drinks to their

Table 3. Mother's child feeding knowledge (n = 60)

No. of items	Knowledge toward mother's child feeding	Yes n (%)	No n (%)	Answered correctly n (%)
1	Children who do not eat before going to school will have short attention.	45 (75.0)	15 (25.0)	45 (75.0)
2	Sugar-rich foods such as sweets and candies can cause children to get tooth decay.	56 (93.3)	4 (6.70)	56 (93.3)
3	Giving too many sweets and candies can interfere with a child's appetite.	51 (85.0)	9 (15.0)	51 (85.0)
4	Children who lack energy show that they do not have enough food.	47 (78.3)	13 (21.7)	47 (78.3)
5	Children who have less weight show they are undernourished.	56 (93.3)	4 (6.7)	56 (93.3)
6	The reason for not having enough food causes the children to become undernourished.	56 (93.3)	4 (6.7)	56 (93.3)
7	The mother can go to the health centre to check on her child's development.	59 (98.3)	1 (1.7)	59 (98.3)
8	Exclusive breastfeeding can prevent undernutrition among children.	51 (85.0)	9 (15.0)	51 (85.0)
9	Chronic disease will increase when a person is overweight or obese.	54 (90.0)	6 (10.0)	54 (90.0)
10	An overweight or obese child will have a poor quality of life.	48 (80.0)	12 (20.0)	48 (80.0)
11	Excessive intake of energy-dense foods that are high in fat is one of the causes of being overweight or obese.	45 (75.0)	15 (25.0)	45 (75.0)
12	Eating more fruits will help to prevent overweight and obesity.	48 (80.0)	12 (20.0)	48 (80.0)

Dichotomous scoring: Yes = 1, No = 0, Don't know = 0

Table 4. Mother's child feeding attitude (n = 60)

No	Attitude towards mother's child feeding	Strongly disagree n (%)	Disagree n (%)	Not sure n (%)	Agree n (%)	Strongly agree n (%)	Median (IQR)
1	Mother can offer sweets such as candies to the child as a reward for good behaviour.	5 (8.3)	37 (61.7)	6 (10.0)	10 (16.7)	2 (3.3)	3.55 (0.98)
2	Mother should be making sure the children do not eat too many sweets such as candies.	0 (0.0)	4 (6.7)	0 (0.0)	43 (71.7)	13 (21.7)	4.08 (0.70)
3	When the children say, "I'm not hungry", the mother needs to get her to eat anyway.	2 (3.3)	26 (43.3)	3 (5.0)	25 (41.7)	4 (6.7)	3.05 (1.13)
4	Mother feed their child after their father finishes eating.	4 (6.7)	45 (75.0)	6 (10.0)	4 (6.7)	1 (1.7)	3.78 (0.74)
5	Mother feed their children before their fathers eat.	3 (5.0)	37 (61.7)	8 (13.3)	11 (18.3)	1 (1.7)	3.50 (0.91)
6	Mother support their children to buy a snack from the store.	7 (11.7)	46 (76.7)	1 (1.7)	5 (8.3)	1 (1.7)	0.39 (0.78)
7	Mother should give children eating food in a bigger portion.	2 (3.3)	30 (50.0)	11 (18.3)	14 (23.3)	3 (5.0)	3.23 (1.01)
8	Mother can give children drink with high sugar content.	10 (16.7)	45 (75.0)	1 (1.7)	3 (5.0)	1 (1.7)	4.00 (0.74)
9	Mother feed their children without following the appropriate mealtime.	4 (6.7)	29 (48.3)	9 (15.0)	16 (26.7)	2 (3.3)	3.28 (1.04)

Likert scale: Strongly agree = 5, Agree = 4, Not sure = 3, Disagree = 2, Strongly disagree = 1

children just 1-2 times each week. According to item 13, 48.3% of mothers never allow their children to eat a snack when they are hungry. About 56.6% of mothers buy food from a street stall for their children on average three to four times each week. Aside from that, around 53.3% of mothers let their children eat whatever they want since they are occasionally unable to oversee them. More than half of mothers never use tap water to make drinks and use too much salt while preparing main meals for their children. In terms of good child feeding practices, 71.7% of mothers did them well, whereas 28.3% of mothers did them poorly.

3.6 Relationship between mother's child feeding knowledge, attitude and practices, and children nutritional status

The results demonstrate a positive but weak relationship between knowledge and attitude level toward a mother's child feeding ($p = 0.005$, $r = 0.356$). As a result, it is possible to assume that knowledge influences the mother's child-feeding attitude. There was no significant relationship between knowledge and perceived practices for mother's child feeding ($p = 0.683$). The relationship between a mother's child

Table 5. Mother's child feeding practices (n = 60)

No. of items	Practice toward mother's child feeding	Never	Rarely (1-2 times)	Sometimes (3-4 times)	Most of time (5-6 times)	Always (7 times)	Median (IQR)
		n (%)	n (%)	n (%)	n (%)	n (%)	
1	Are you responsible for feeding your children?	0 (0.0)	0 (0.0)	1 (1.7)	19 (31.7)	40 (66.7)	4.65 (0.52)
2	Do you give high-fat food to your children?	10 (16.7)	25 (41.7)	21 (35.0)	3 (5.0)	1 (1.7)	3.67 (0.88)
3	Do you give high sugary drinks to your child?	12 (20.0)	27 (45.0)	14 (23.3)	4 (6.7)	3 (5.0)	3.68 (1.03)
4	Do you keep track of your child's snack food intake?	2 (3.3)	7 (11.7)	10 (16.7)	16 (26.7)	25 (41.7)	3.92 (1.17)
5	Do you buy food from the street stall?	2 (3.3)	19 (31.7)	34 (56.7)	3 (5.0)	2 (3.3)	3.27 (0.76)
6	Do you let your children eat what they want?	1 (1.7)	12 (20.0)	32 (53.3)	6 (10.0)	9 (15.0)	2.83 (0.98)
7	Do you cook the same dish every day?	17 (28.4)	19 (31.7)	20 (33.3)	0 (0.0)	4 (6.7)	3.75 (1.08)
8	Do you cook something else when your child refuses to eat what is served?	1 (1.7)	5 (8.3)	21 (35.0)	5 (8.3)	28 (46.7)	3.90 (1.15)
9	Do you tell your children to eat a variety of food?	1 (1.7)	5 (8.3)	21 (35.0)	5 (8.3)	28 (46.7)	4.20 (1.04)
10	Do you feed excess formula milk to children above two years?	33 (55.0)	5 (8.3)	17 (28.3)	1 (1.7)	4 (6.7)	4.03 (1.23)
11	Do you use unfiltered tap water to make a drink?	49 (81.7)	3 (5.0)	2 (3.3)	0 (0.0)	6 (10.0)	4.48 (1.24)
12	Do you use excess salt for cooking the main meal eaten by your children?	41 (68.3)	11 (18.3)	4 (6.7)	1 (1.7)	3 (5.0)	4.43 (1.05)
13	Do you allow your children to eat a snack when they are hungry?	29 (48.3)	18 (30.0)	12 (20.0)	0 (0.0)	1 (1.7)	4.23 (0.89)

*Likert scale: Always (7 times) = 5, Most of time (5-6 times) = 4, Sometimes (3-4 times) = 3, Rarely (1-2 times) = 2, Never = 1

Table 6. Relationship between mother's child feeding knowledge, attitude and practices, and children nutritional status (n = 60)

Component	Knowledge		Attitude		Practices		BMI-for-age		Height-for-age	
	p-value	r-value	p-value	r-value	p-value	r-value	p-value	r-value	p-value	r-value
Knowledge	-		0.005*	0.356	0.683	-0.054	0.342	-0.125	0.627	0.064
Attitude	0.005*	0.356	-		0.086	0.224	0.357	0.121	0.982	-0.002
Practices	0.683	-0.054	0.086	0.224	-		0.578	0.073	0.709	-0.049

*Significant at $p < 0.05$

feeding attitude and perceived practice was not significant ($p = 0.086$). This study shows that the good attitude level of the mother's child feeding has no relationship with the mother's perceived practises. The outcomes of this study, as shown in Table 6, revealed no significant relationship between mothers' knowledge, attitude, and practices regarding children's BMI-for-age, and height-for-age.

4. Discussion

The purpose of this study was to assess mothers' knowledge, attitudes, and practices about child feeding as well as their relationship with children's nutritional status in Terengganu fishermen's families. In general, the mothers had good knowledge, a positive attitude, and good child feeding practices. Contrary to expectations, being a competent mother with a positive attitude did not correlate with good child feeding practices. It is possible to conclude that knowledge has no influence on a mother's child feeding practices. The findings countered those of the USDA's Economic Research Service (2018), which found that mothers' understanding of food and nutrition increased as they were able to encourage a higher quality of their children's meals, particularly those of younger children. Meanwhile, one study conducted in Selangor, Malaysia, revealed that poorer parental attitudes and practices, as well as a poorer environment around them, put primary school children at risk of obesity (Nordin *et al.,* 2018). Worsley (2002) found a paradoxical link between nutrition knowledge and food consumption related to eating behaviour in a prior study.

The majority of the research focused on parental feeding practices involving infant breastfeeding. Little research has been conducted to demonstrate the relationship between knowledge, attitude, and child feeding practices, particularly for children aged 2-4 years.

According to the findings of this study, the prevalence of stunting among Terengganu's fishermen's children was relatively significant. Another significant discovery was that the percentage of wasted and severely wasted children appeared to be higher than the national prevalence of waste, which ranges between 11.5 and 20.7 (NHMS, 2015; NHMS, 2016). According to Ngui *et al.* (2012), the lower the family household income, the greater the undernutrition issues among children. This conclusion is backed up by prior research that found that mothers with a secondary school education had a higher percentage of wasted children (Adnan and Muniandy, 2012).

The mother's KAP is believed to be related to the nutritional status of her children. It is quite interesting that no association was found in this study. One limitation of this study was that it only looked at two districts in Terengganu. As a result, it does not reflect all Terengganu fishermen's children under the age of five. It was challenging to find appropriate mother-child pairs since the children's ages ranged from two to four years. Aside from that, most fishermen do not have children under the age of six, and the majority have children beyond the age of six. Because measuring dietary intake would be challenging, this study does not do so. After all, the responders are under the age of five, and parents may not accurately describe their children's food intake. The key strength of the current study, however, was the high rate of mothers' answers to the questionnaires. More study is needed to identify the other major aspects that might contribute to children's nutritional status. This data may be used to build targeted interventions to reduce malnutrition among children under the age of five.

4. Conclusion

This study discovered that the majority of mothers had good knowledge, a positive attitude, and good child feeding practices. The majority of children had normal BMI and height for their age. Stunting and wasting are noticeable among fishermen's children under the age of five in Terengganu. There was no correlation between mothers' feeding knowledge, attitudes, and practices and their children's nutritional status in fishermen's families. When considered collectively, this study indicates that additional key factors may have an effect on the nutritional status of children in this fishermen's community.

Conflict of interest

No conflict of interest among all the authors.

Acknowledgement

The authors would like to express their sincere gratitude to all respondents for their participation, full cooperation and patience during the study. This study was funded under the Fundamental Research Grant Scheme for Research Acculturation of Early Career Researchers (FRGS – RACER): RACER/1/2019/SKK06/UMT//1. This study is part of a larger study "Risk assessments of low cognitive performance among fishermen's children in Terengganu, Malaysia".

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