



ASSOCIATION BETWEEN MATERNAL USE OF PRESSURE FEEDING AND FOOD NEO-PHOBIA IN PRE- SCHOOL CHILDREN OF KARACHI

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Abstract

The term Food Neophobia is defined as the unwillingness to eat foods that are new or novel. This behavior generally occurs in early childhood and reaches peak around 2-6 years. Mother's influence their children's food preferences and their willingness to eat new foods through applying feeding techniques. Therefore, the current study aims to find out the effect of maternal feeding practices on child's Food Neophobia. A sample of 396 mothers of pre-school children residing in Karachi were included in the study using convenient sampling technique. Data was collected using interview method and a validated Food Neophobia Scale and Maternal Feeding Practices questionnaire. More than half of the children (59.6%) had higher level of Food Neophobia. Maternal practice of pressuring their children to eat was positively correlated with the Food Neophobia in children ($r = 0.176$, $p = < 0.001$), however negative correlation was observed between Food Neophobia and child's age ($r = - 0.451$, $p = < 0.001$). Additionally linear model showed that with increase in pressure feeding practice Food Neophobia in children will decrease by 0.06 ($B = -0.06$ [95% CI: - 0.09 to - 0.04]). Maternal practice of pressure feeding was found to be associated with Food Neophobia in pre-school children However, other maternal practices were inter-correlated, and had no relation with food neophobia. Furthermore, negative moderate correlation existed between pressure feeding and Food Neophobia.

Keywords: Food Neophobia, Maternal Feeding Practices, FNS.

1 Introduction

The term Food Neophobia is defined as the unwillingness to eat foods that are new or novel (1). Neophobic behavior is common in early childhood as it is a period of rapid growth, development, and when dietary preferences and attitude develop. Food Neophobia is considered a barrier to healthy food consumption behavior among children. To be more precise, Food Neophobia is one of the reasons for poor health outcomes, for instance, a decline in selection and consumption from all five food groups, resulting in a reduced variety in the diet, and particularly a decline in preference of vegetables and certain fruits (2). The development of Food Neophobia is affected by many factors, for instance, individual, psychological, biological, economic, and socio-cultural. Family is

the first social exposure of the child, specifically; mothers play a vital role in building healthy eating habits in children (3). Mothers influence food choices and incline their children towards consumption of novel foods by applying feeding techniques. "Specific behaviors or rules that mothers use to control what, how much and when their children eat are described as maternal feeding practices". Mothers use different feeding practices such as pressure to eat certain healthy foods or to withhold specific unhealthy foods. Therefore, it is important to determine the association between maternal feeding practices that influence Food Neophobia in children. As adulthood dietary preferences are predicted by eating behaviors in early childhood. So that proper guidelines regarding appropriate feeding methods with healthy choices would be provided to the mothers that will aid in overcoming negative eating behaviors in children (4). Additionally, it is crucial to determine the relationship between maternal feeding practices and Food Neophobia among children to develop effective interventions. Therefore, the current study aims to find out the effect of maternal feeding practices on Food Neophobia in children. Food Neophobia is generally defined as a fear of new, novel and unfamiliar foods. Children in younger age shows dislike or unwillingness to eat unfamiliar foods while show willingness to eat certain foods which are not new to them. Food Neophobia peaks in early childhood, but may also present in adulthood (5). Neophilic consumers tend to accept unfamiliar foods. Neophobic consumers tend to reject unfamiliar foods. Novel food can be newly developed, innovative food or food produced using new technologies and production processes. Maternal feeding practices are defined as mother-child feeding interactions which determine how, when, and why children are fed (6). Maternal Feeding Practices includes; Healthy eating guidance, pressure to eat, food as a reward/emotion regulation, restriction for health and monitoring etc. Food Neophobia is determined as a strategical behavior that develops in children and aid in the prevention of eating harmful items. Rozin and Stallberg-white & Pliner define Food Neophobia as "a condition that accounts for a person's reluctance to consume either new or unusual foods, based on one's culture and current diet" (7). Literature has shown that Food Neophobia is neurological behavior that is present in infancy and peaks around 2 years and declines later in middle childhood (8). It is considered one of the major barriers to healthy food consumption behavior among individuals. To be precise, Food Neophobia is considered as the reason for poor health outcomes, for instance, a decline in selection and consumption from all five food groups, resulting in a reduced variety in diet (9). Researches have shown that several factors such as age, cognitive factors, personality trait, feeding styles predict the degree of Food Neophobia in children (10). Additionally, a child's past and present experience with food also contribute to the child's willingness to eat unfamiliar food items. Several studies suggested that neophobia is age-related behavior. This behavior is present at the time of birth and increases drastically at around two years of age then slowly decline still 10 years (11). Moreover, food exposure of child increase with child and at older age only few food items remain new to them as compared to early childhood when the child just start to explore all food items. Research has shown that around age between 2 to 7 years children Food Neophobia is inversely related to the early introduction of novel foods (12). Continuous exposures to food in the early years of life have significant results on child neophobic response, early and repeated exposure to unfamiliar foods increases the child's willingness on the other hand decreases the severity of Food Neophobia. A cohort evidenced that likes and dislikes develop in early childhood remains significantly same till early adulthood, which demonstrated that FN in early childhood indicates the dietary habits of later life (13). Similarly, a study from Saudi Arabia concluded that food preferences in food neophobic adults were significantly associated with the food variety in the early years of life (14). For instance, children aged two or above may reject certain food as a result of negative emotions due to past bitter experiences (16). Individual children denote unwillingness to eat novel foods distinctively. Few disapprove of soft foods on the other hand few will disapprove of hard food items. Few will resist eating food that others have touched. Some children show reluctance to eat sweet items. Sensory evaluation regulates the consumption of fruits and vegetables thus, plays a vital role in the determination of Food Neophobia. Research recently conducted in Australia showed that sensitivity to odor and texture was directly related to Food Neophobia (17). Furthermore, the difference in the severity occurs with certain items and also

in between every child. Moreover, individuals with anxiety have more chances of developing Food Neophobia (16). Food aversions are most likely to occur in a child who is at risk of developing anxiety (17). If mothers encourage by tasting in front of them rather than pressuring them to eat certain foods, a child would show willingness and prefer to eat food that his/her mother dislikes (12). Evidence has shown that Food Neophobia is negatively associated with dietary variety among children. Neophobia leads to limited dietary variety resulting in a lack of food selection and restricting food choices eventually limiting food groups in children's diet. A study in 2008 resulted that food preferences from each group are inversely related to Food Neophobia (18). A 2020 study indicated that neophobia was negatively related to preferences for all food groups (15). Dietary choices of food for neophobic children are limited, they eat few foods. Some common foods are rejected by most neophobic children. As a result of limited dietary variety, specifically restricted fruits and vegetable intake, obesity is considered too prevalent in food neophobic children (19). Yet, limited researches are available on a direct relationship between obesity and Food Neophobia. There are different methods to obtain data on Food Neophobia in children. However, the best way is by parents, specifically the mother's reporting. Responses from children have lower accuracy. Therefore, obtaining data from parents rather than children increases the reliability of the response. Food Neophobia is assessed using a validated questionnaire, Food Neophobia Scale (FNS). It was first developed by Pilner, P. and Wardle, Carnell & Cooke in 1991 (20).

Methodology

Research Design and Settings:

This study is a cross-sectional survey that was conducted in Karachi, Pakistan. The inclusion criteria was Mothers of children aged 2-6 years residing in Karachi and the exclusion criteria was Mothers of children who have food allergies or other diseases requiring a special diet will be excluded. The duration of this study was 9 months after the approval of synopsis.

Data Collection:

Sample size was calculated using Open Epi calculator taking Food Neophobia prevalence as 37.4% in children (27). A 95% Confidence level and 80% power of the test was taken. The total sample size was calculated to be 360. However to reduce biasness 10% sample size was increased and the total sample size was 396. Sampling Technique: The study participants were selected through convenient sampling. Mothers' of children aged 2 – 6 years, who fulfilled the inclusion criteria of the study, were recruited. The Independent Variable is Maternal Feeding Practices and the Dependent Variables: is Food Neophobia in Children. Mothers of pre-school children within the 2-6 year age range living in Karachi were requested to fill the questionnaire. Participants provided background information about their age (grouped into age 20-30 and age 31-40), education status (primary, secondary, graduate and post graduate) and working status (working / not working), as well as their child's gender (male / female), and age which then grouped into 2-3.11 and 4-6 years.

Study Parameters:

The information on feeding practices was collected using Comprehensive Feeding Practices Questionnaire (CFPQ) that has been previously validated (21). This section includes 21 items, comprising of five factors: Maternal practice of giving 'Healthy Eating Guidance' was evaluated using five statements. Maternal practice of 'Pressuring to eat' was evaluated using four statements. Maternal practice of 'Restricting for health' was evaluated using five statements. Maternal practice of using 'Food as Reward/Emotional Regulation' was evaluated using five statements. Maternal practice of 'Monitoring' was evaluated using four statements. Responses were then marked on 5-point-likert scale from strongly agree (=5) to strongly disagree (=1) for healthy eating guidelines and Pressure and for restriction for health. Monitoring and food as reward responses will be marked on 5-point-likert scale from always (=5) to never (=1). Higher scores (greater than and equal to .40) will represent using more of those feeding practices. The data on Food Neophobia was obtained using "Food Neophobia Scale questionnaire (FNS)". This section of questionnaire was adopted

according to the study population by using two different Food Neophobia Scales. Food Neophobia Scale by Pilner, P. (1994) and Wardle, Carnell & Cooke (15) and The Child Food Rejection Scale: a new scale to assess Food Neophobia among 2 – 7 year-old French children by Camille Rioux, Jérémie Lafraire, Delphine Picard (22). Both questionnaires were valid for assessing Food Neophobia. This section comprises of eight questions. The responses were marked using bipolar Likert scale from strongly agree (=5) to strongly disagree (=1), with overall scores ranging from 8 to 40 and with a higher score indicating higher level of Food Neophobia. Using the scale, children who were unwilling to try new foods(food neophobic); score greater than 28, children with average willingness to try new foods(average); score 21 to 27 and children who were very willing to try new foods(food neophilic) are defined as children with scores less than 21.

Statistical Analysis

Data was analyzed using SPSS software version 16. Frequencies, percentages, means and standard deviations were used to illustrate demographic characteristics, Food Neophobia and maternal feeding practices. Also to determine the prevalence of Food Neophobia categories, we used percentages and frequencies. Food Neophobia and maternal feeding practices were not normally distributed. Hence, we used Spear’s man correlation test to identify the inter-correlation between continuous variables; Food Neophobia, maternal feeding practices, age of child and mothers age. Chi- square test was used to determine the association between categories of Food Neophobia and socio-demographic variables. We re-categorized mother’s education variable into 3 categories including undergraduate, graduate and postgraduate. Multiple linear regression models and 95% confidence interval were used to investigate the linear association between Food Neophobia and Maternal Feeding Practices. Model was adjusted for categorical variables.

Results:

Baseline characteristics of the 396 mothers and children with all the data for study variables are presented in table 1. Mothers’ were of age between 20 to 40 years with mean age 29.42 ± 3.01 and age range of children was 2 to 6 years with mean age 3.42 ±1.19. Out of 396 most of the children were male 209 (52.8%). Almost half of the respondent mothers were working 204 (51.5%). Only 10.1% of mothers had primary/secondary education and the number of women who were intermediate, graduate and post-graduate was 100, 173 and 83 respectively.

Table 1. Demographic Characteristics (n = 396)

	n	%
Education level of mother		
Primary/Secondary	40	10.1
Intermediate	100	25.3
Graduate	173	43.7
Post-Graduate	83	21.0
Working status of mother		
Working	204	51.5
Not working	192	48.5
Child's gender		
Male	209	52.8
Female	187	47.2
	Mean ± SD	Range
Mothers' age	29.42 ± 3.01	20 - 40
Child's age	3.42 ± 1.19	2 - 6

Table 2 showed the mean score of child neophobia was found to be 27.39 with a standard deviation of ±9.10. Significant difference was observed among mean values of maternal feeding practices. Highest mean value was of healthy eating guidance that is 17.06±4.53 and the lowest mean value 11.78±4.61 was of monitoring. Average scores for pressure to eat and restriction for health were 12.78±3.81 and 12.23±4.31 respectively. Similar response range was observed for Pressure to eat,

restriction for health and monitoring i.e. 4-20, while healthy eating guidance and emotion regulation response range was between 5-58 and 5-25 respectively.

Table 2. Mean scores of children's Food Neophobia and maternal feeding practices

	Mean \pm SD		Range
Food Neophobia	27.39 \pm 9.10		8 – 40
Maternal Feeding Practices			
Healthy Eating Guidance	17.06	\pm 4.53	5 – 58
Pressure to Eat	12.78	\pm 3.81	4 – 20
Restriction for Health	12.23	\pm 4.31	4 – 20
Emotion Regulation/Food as Reward	14.76 \pm 5.54		5 – 25
Monitoring	11.78	\pm 4.61	4 – 20

Findings of the study showed that 30.1 percent of the children were neophilic. 10.4 percent children were found to have average neophobia. Percentage of children exhibiting Food Neophobia was highest among them i.e. 59.6 percent, illustrated in Figure 1.

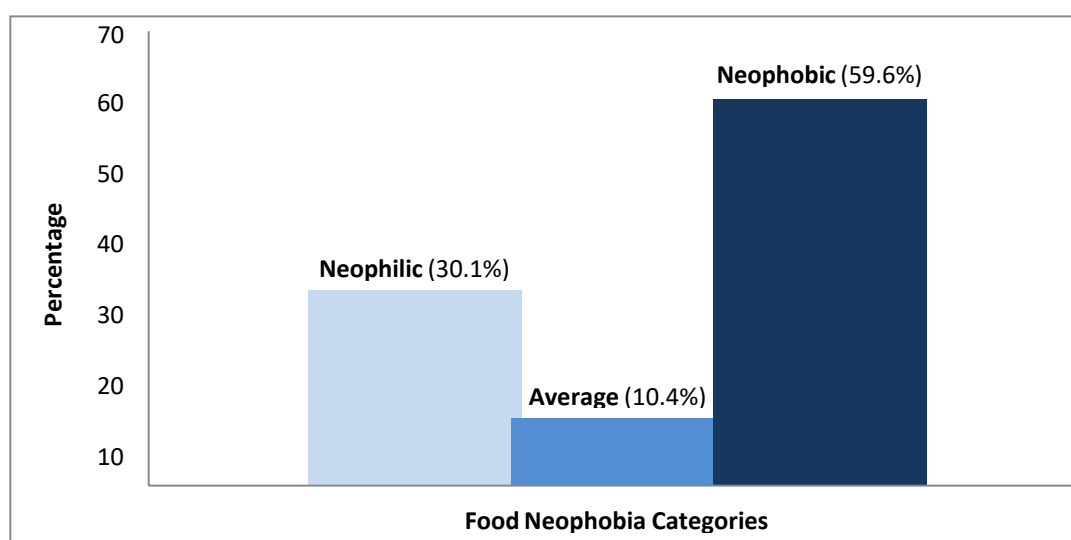


Figure: 1. Proportions of Food Neophobia in children (n = 396)

Maternal practice of pressuring their children to eat was positively correlated with the Food Neophobia in children ($r = 0.176$, $p < 0.001$), however negative correlation was observed between Food Neophobia and child's age ($r = -0.451$, $p < 0.001$) and pressure to eat and child's age ($r = -0.181$, $p < 0.001$). Moreover restriction for health was positively correlated with healthy eating guidance, pressure to eat and monitoring. Furthermore, negative correlation was found between restriction for health and food as reward/emotion regulation. Child's age was also positively correlated with food as reward/emotion regulation. The correlation between Food Neophobia, maternal feeding practices and mother's and child's age can be found in Table 3.

The associations between Food Neophobia and the sociodemographic characteristics were also examined. Child age is significantly associated with Food Neophobia ($p < 0.001$), specifically Food Neophobia was more prevalent in children aged 2 - 3.11 years ($n = 205$). Additionally, maternal education level was significantly associated with Food Neophobia ($p < 0.001$) with highest neophobic children to undergraduate mothers ($n = 111$). The association between Food Neophobia categories and demographic characteristics of participants is illustrated in Table 4. Regression model adjusted for maternal and child's ages resulted positive association among the healthy eating guidance and Food Neophobia. Maternal practice of healthy eating guidance indicated higher levels of Food Neophobia ($B = 0.11$ [95% CI: 0.09 to 0.13]). Mothers' practice of pressure feeding indicated lower level of Food Neophobia ($B = -0.06$ [95% CI: -0.09 to -0.04]). On the other hand, food as reward/emotion regulation showed positive two-way association with Food

Neophobia. Likewise, maternal practice of restriction for health showed positive two-way association. The linear association between Food Neophobia and maternal feeding practices is shown in Table 5.

Table: 3. Correlation between Food Neophobia and maternal feeding practices (n = 396)

Variable	Food Neophobia	Healthy Eating Guidance	Pressure Feeding	Restriction forHealth	Emotion Regulation/Food as Reward	Monitoring
Food Neophobia		0.019 (0.712)	0.176 (<0.001)	0.048 (0.337)	0.052 (0.304)	0.062 (0.217)
Healthy Eating Guidance	0.019 (0.712)	—	0.101 (0.044)	0.130 (0.010)	- 0.158 (0.002)	0.127 (0.011)
Pressure Feeding	0.176 (< 0.001)	0.101 (0.044)	—	0.142 (0.005)	0.071 (0.159)	0.071 (0.161)
Restriction for Health	0.048 (0.337)	0.130 (0.010)	0.142 (0.005)	—	- 0.277 (< 0.001)	0.253 (<0.001)
Emotion Regulation/Food as Reward	0.052 (0.304)	- 0.158 (0.002)	0.071 (0.159)	- 0.277 (<0.001)	—	- 0.024 (0.631)
Monitoring	0.062 (0.217)	0.127 (0.011)	0.071 (0.161)	0. 253 (< 0.001)	- 0.024 (0.631)	—
Age of Child	- 0.451 (< 0.001)	- 0.026 (0.609)	- 0.181 (<0.001)	- 0.052 (0.299)	0.099 (0.048)	- 0.055 (0.272)
Age of Mother	0.046 (0.365)	0.112 (0.026)	0.096 (0.056)	- 0.028 (0.582)	0.033 (0.513)	0.011 (0.825)

p-value calculated using Spearman correlation . r (p-value) are reported

Table: 4. Association between Food Neophobia categories and demographic characteristics of participants.

Variables	Neophillic (n = 119)	Average (n = 41)	Neophobic (n = 236)	p- value*
Child's age	2 - 3.11	41 (16.5)	2 (0.8)	<0.001
	4 - 6	78 (52.7)	39 (26.4)	
Child's gender	Male	62 (29.7)	25 (12.0)	0.538
	Female	57 (30.5)	16 (8.6)	
Mother's age	20 - 30	80 (30.1)	28 (10.5)	0.986
	31 - 40	39 (30.0)	13 (10.0)	
Mother's working Status	Working	60 (29.4)	18 (8.8)	0.512
	Not working	59 (30.7)	23 (12.0)	
Mother's Education Level	Under-Graduate	25 (21.0)	4 (9.8)	< 0.001
	Graduate	65 (37.6)	21 (12.1)	
	Post-Graduate	29 (34.9)	16 (19.3)	

*p-value was calculated by Chi square test.

Table: 5. Relationship of Food Neophobia with feeding practices of mothers.

Predictor/Outcome Variable	β (95 % Confidence Interval) Unadjusted	p- Value	β (95 % Confidence Interval) Adjusted †	p- Value
Healthy Eating Guidance/FN†	0.11(0.09 , 0.13)	< 0.001	0.10 (0.08 , 0.12)	< 0.001
Pressure Feeding/FN	-0.06 (- 0.09 , - 0.04)	< 0.001	-0.15 (- 0.18 , - 0.13)	< 0.001
Restriction for Health/FN	0.10 (0.08 , 0.13)	< 0.001	0.16 (0.14 , 0.19)	< 0.001
Emotion Regulation/Food as Reward/FN	0.08 (0.06 , 0.10)	< 0.001	0.12 (0.10 , 0.13)	< 0.001
Monitoring/FN	0 .09 (0.07 , 0.11)	< 0.001	0.05 (0.03 , 0.07)	< 0.001
FN/Healthy Eating Guidance	0.08 (- 0.02 , 0.19)	0.143	0.07 (- 0.03 , 0.18)	0.183
FN/Pressure Feeding	-0.13 (- 0.24 , - 0.03)	0.013	-0.17 (- 0.28 , - 0.06)	0.001
FN/Restriction for Health	0.24 (0.13, 0.35)	< 0.001	0.27 (0.16 , 0.38)	< 0.001
FN/Emotion Regulation/Food as Reward	0.21 (0.15 , 0.32)	< 0.001	0.19 (0.08 , 0.30)	0.001
FN/Monitoring	0.12 (0.01 , 0.23)	0.021	0.11 (0.00 , 0.22)	0.037

Abbreviations: †FN, Food Neophobia. † Adjusted for maternal and child's age.

2 Discussion:

This study examined the association of Food Neophobia in children and maternal feed practices. Results indicated that pressure feeding practice of mothers has direct association with food neophobia. Additionally, it was evident that younger children had higher levels of Food Neophobia than older children. Furthermore, the results of this study are consistent with previous studies reporting that food rejection is common in early years of life and maternal feeding practices, specifically pressure feeding has significant association with Food Neophobia. Studies have showed that 30% to 70% children are food neophobic as reported by mothers, guardian or caretakers (28). Another study in New Zealand showed that more than half of the children showed unwillingness to unfamiliar foods according to their parents (29). Our results incline with the previous studies, our results reported that 59.6% children were neophobic. In 2017 study was conducted in Australia on prevalence of Food Neophobia resulted that Food Neophobia was more prevalent in early childhood and declines with the increase in age (30). Additionally, Food Neophobia also had relation with the demographic characteristics of the children and their mothers (16). Likewise, association between Food Neophobia and age of the child showed significant results. Similarly, our study resulted that Food Neophobia was more prevalent in less than 4 years (82.7%) than 4 – 6 years (20.9%). Education level of mothers also had significant association with Food Neophobia (11). A study conducted in 2015 indicated that children of educated mothers show more acceptance for new foods than uneducated mothers. Our study showed contradictory results and no significant difference was observed between ungraduated (47.0%), graduate (50.3%) and postgraduate (48.8%) mother's children level of acceptance. Furthermore, in our study no significant difference was seen in the working (61.8%) and non-working (57.3%) mother's children Food Neophobia. Additionally a longitudinal study in 2020 showed that Food Neophobia is not associated with the gender of child (15). Another study in Poland indicated the same results and no significant difference were observed. Likewise, no significant difference was observed in our results i.e. male (58.4%), female (60.0%).

Mothers' concerns about the diet, health and development of their children influence the application of feeding strategies including, pressuring their child to eat food or using food as a reward or for emotion regulation (31). Mothers often monitor the diet routine of their children by keeping records. As predicted, study resulted that there is a positive relationship between pressure feeding and development of Food Neophobia in children. Furthermore, pressure feeding is correlated with restriction for health and healthy eating guidance. The findings of our study align with the study conducted in Saudi Arabia by Hebah Alawi Kutbi that resulted in positive association between food neophobia in children and pressure feeding practice of mothers (27). Possibly maternal concern regarding child's refusal to eat certain foods enforces them to apply pressure feeding strategy. A longitudinal study which investigated use of maternal feeding practices with food neophobic children concluded that with greater pressure feeding increases the chances of child becoming neophobic (31). On the other hand, latest findings showed that pressure feeding is counterproductive. Furthermore, in Germany, a study suggested that higher levels of Food Neophobia are associated with pressure feeding strategy used by mothers (32). Additionally, a twin study conducted on children indicated that pressure feeding at young age resulted in greater severity of FN (28). Previously, studies reported that using feeding strategy other than pressure feeding enhances the child's willingness to eat unfamiliar foods (33). In fact, latest researches indicated that child's food acceptance can be improved by increasing exposure of food (34, 35). Yet, it is still unidentified that which feeding practice increases the acceptance of unfamiliar foods among pre-school children (36). Present study feeding practices; found to be inter-correlated, showing that mothers are concerned and working hard to enhance children's acceptance of food by applying different strategies. Furthermore, it's important to find out which practices is more effective in controlling negative eating behaviors. Our findings suggested that healthy eating guidance was negatively correlated with the restriction for health and foods as a reward/emotion regulation, however, no relation was found between Food Neophobia and healthy eating guidance, restriction for health, monitoring and food as a reward/emotion regulation. Additionally, an interventional

study investigated that the novel food acceptance increases in early childhood when children's were guided with the nutrition education (37). However, latest researches indicated that the effect of education on Food Neophobia is marginal in elementary school students (38, 39). A cross national study on children aged 4 to 8 years observed the relationship between restriction for health and healthy eating guidance with Food Neophobia (40). However, we were not able to establish the association between restriction for health and Food Neophobia, we found out association between FN and healthy eating guidance.

Limitations:

Although this study was the first to be conducted in the Pakistan, it has some limitations that must be noted. Firstly, because of the cross-sectional design of the study association and temporality cannot be determined. Secondly, data collection was done from participant's recruited using convenient sampling. Thirdly, the recalling nature of the study for the main variables of interest is prone to error and bias as mothers were not necessarily aware of the actual willingness of their child so they provide information according to their presumptions about their child's choices Finally, while this was a representative sample in Karachi, Pakistan and these findings may not be generalized to all cities and/or geographic regions.

Future Recommendations:

The study revealed that there is a significant relation between maternal practice of pressure feeding and Food Neophobia in children which highlights the need for prompt awareness measures. Furthermore, a longitudinal study will help to investigate the effects of maternal feeding practices in later life of neophobic children. Also, an interventional study could be design in Pakistan, to develop effective maternal feeding practices and nutrition education strategies that may help in overcoming negative eating behaviors. Our data indicated that almost more than half children were food neophobic which increases their chances of becoming obese adults. Food Neophobia is estimated to be 40% in individuals (41). A study in Finland indicated that 60% of target population was neophobic. Mothers, on the other hand, are concerned about the food choices of their children because of which they employ different feeding strategies. Food Neophobia is considered as the reason for poor health outcomes by limiting the dietary variety. In Germany, study showed that limited variety of food in diet specifically, fruits and vegetables was significantly associated with Food Neophobia (42). Although despite strong evidence between inverse association between Food Neophobia and dietary variety, studies have failed to establish the link between obesity and Food Neophobia (43). It is suggested to conduct an observational study to better understand the association between weight status and Food Neophobia.

Conclusion:

As evident by the results of present study, it can be concluded that more than half of our population was Food Neophobic and young children are more susceptible of developing Food Neophobia than older ones. Also, there is a significant association between pressure feeding by mothers and Food Neophobia.

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