



Determinants Of Food Neophobia And Picky Eating Behaviour Among Adolescent In Chennai City-A Multi Cross Sectional Study

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ABSTRACT – Food is essential for our survival apart from that selection of Food is highly essential for our survival. Food Neophobia (Fear towards new food) and Picky Eating (Rejecting Familiar as well as unfamiliar foods) these two behaviors interfere with one's intake by declining the inclusion of variety in the diet. Adolescence is the period of development that originates at the time of puberty and ends at adulthood hence consuming a variety of food is important to them but Adolescents with such behavior consume a limited variety of food. To our knowledge there are limited studies are available in India especially on FN and no study on PEB and This might be the First study covering both behaviors hence there is a need to explore various factors associated with Food Neophobia as well as Picky Eating Behaviour among adolescents and Their Parental Feeding Practices, which are presented by fruitful results.

Keywords – Food Neophobia, Picky Eating Behaviour, Parental Feeding Practice.

Abbreviation- Food Neophobia (FN), Picky Eating Behaviour (PEB), Food Neophobia Scale (FNS) Food Situation Questionnaire (FSQ) , Comprehensive feeding practice questionnaire (CFPQ).

I Introduction

Humans are most of the time have been compared with animals by describing its character or the emotion it reflects out, likewise one such embedded emotion in humans is Fear. The study of **Susan L. Johnson et.al., (2018)** throws more light over this to understand the concept better, it has been thought that nonhuman omnivores like rats and monkeys will never readily accept new foods in order to prevent them from ingesting potentially toxic substances. This kind of survival mechanism is also present in humans and potentially serves the same adaptive function such behavior is known as **Food Neophobia. Pliner and Hobden** defined food neophobia "as a reluctance to eat and/or avoidance of novel foods"(**John B. Nezelek et.al 2018**). Another typical omnivore behavior that declines one's intake towards a variety of food is **Picky Eating Behaviour Dovey et.al 2008** describes picky/fussy eaters as one who consumes an inadequate variety of foods through rejection of a substantial amount of foods that are familiar (as well as unfamiliar) to them. It can also be referred to as fussy eating, selective eating, faddy eating, and choosy eating (**Caroline M. Taylor et.al., 2018**). The study of **Meera D. Patel et.al., (2020)** narrative review throws light on some of the common behaviors of Picky Eaters such as avoiding the intake of certain food groups, avoiding certain foods based on their sensory characteristics, requiring specific food presentations, or preparations, eating a limited variety of food, and not eating an adequate amount of food.

Importance of Right Food choices among Adolescents

Adolescence is the period of development that begins at puberty and ends at adulthood. The recent **Lancet commission on adolescent health and well-being** further divided this time in the life cycle into three 5-year age categories: a) Early adolescence (10–14 years), b) Late adolescence (15–19 years), and c) Young adulthood (20–24 years). The Food choice of adolescents recently escalated towards excess consumption of fat and saturated fat, and sugar-rich foods. When their food choices have limited variety by rejecting certain food groups as well as avoiding novel foods and Preferring unhealthy foods. This may make them to face consequences like Obesity, Anaemia and In prolonged stage cardiovascular, Diabetes, Blood pressure, etc may occur. These age group people are future parents they need adequate growth and development in them, especially to the Female gender. Females with Iron, Iodine, and Folic acid deficiency means they may suffer a lot during pregnancy and it gets passed on to the next

generation. During this phase of period, Every boy is interested in masculinity, and the Majority of girls want to lose weight. Most of them become obese because of humiliating rejection, social isolation, physical inferiority, and Feeling of depression. Hence making Adolescents consume balanced meals as a choice is important which provides a beneficial effect

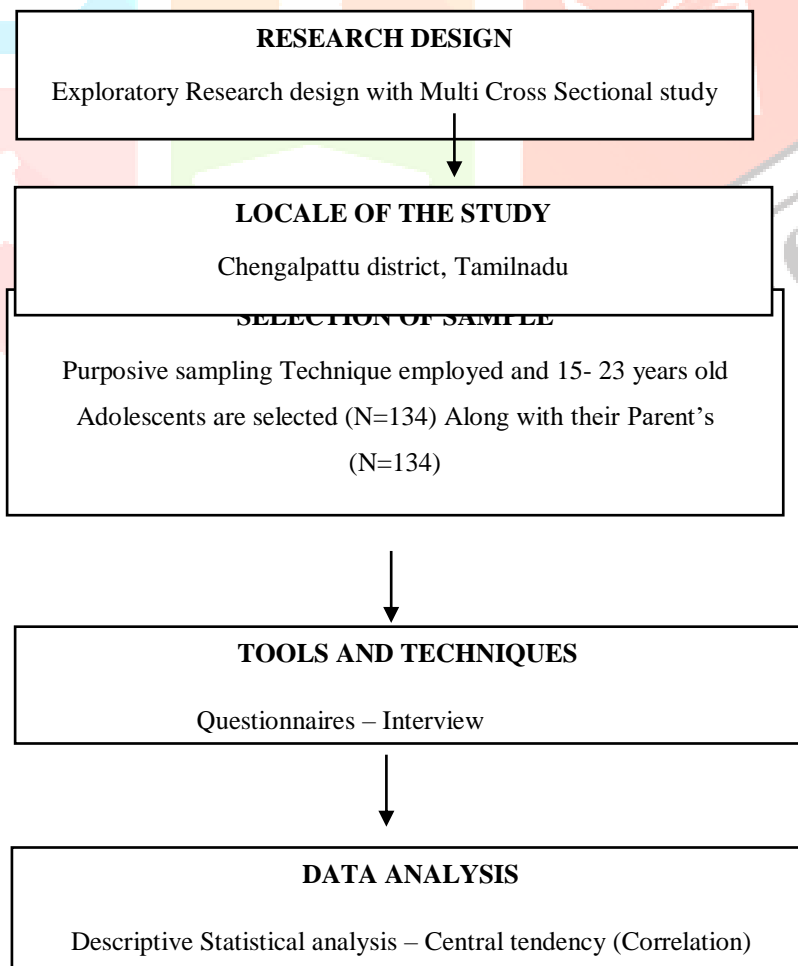
Why Parental Feeding Practice is important for an Adolescents?

The Family environment is very much important for developing the right eating practice. During the adolescent period, they crave to be alone which creates less interaction with their Parents that can also influence individuals eating behavior. when an adolescent left alone at home, they may feel like eating more the available food. During the isolated period, the type of food they desire to consume is important. If it is a person with health-conscious there is no problem but the real trouble begins when they start to develop addiction towards high fat and sugary drinks which are unhealthy. Every parent dreams of their children's wellness but some parents aren't affordable to purchase healthy food because of poverty. Some parents are affordable to purchase all the variety of foods in the world but sadly their child may have poor eating habits both can lead to Food Neophobia and Picky Eating Behaviour which limits their intake of variety. The study of **Wonjeong Chae et.al., (2018)** concluded that People who eat alone have a nutrition intake below the recommended amount.

To our knowledge there are limited studies are available in India especially on Food Neophobia and no study on Picky Eating Behaviour and This might be the First study covering both behaviors hence there is a need to explore various factors associated with Food Neophobia as well as Picky Eating Behaviour among adolescents and Their Parental Feeding Practices, which are presented by fruitful results. The first objective of the study was to examine Food Neophobia and Picky Eating Behaviour among Adolescents in Chennai City. Another objective study was to Find out how Food Neophobia and Picky Eating behavior is associated with Preference of Food and Environment or Parental attitude and also To Find out the Parental Feeding Practice of Adolescents with Food Neophobia and Picky Eating Behaviour in various aspects. eg- Environmental, Encourage Balance and Variety, Teaching about nutrition, Monitoring, Modeling, Involvement, Child control, Restriction for weight control (RWC), Restriction for Health (RH), Emotion Regulation/Food as Reward (ERFR) and Pressure (P).

II RESEARCH METHODOLOGY

This study employs an Exploratory Research design by using a purposive sampling technique to find out how Food Neophobia and Picky Eating behavior is associated with Preference of Food and Environment or Parental attitude and also to find out their parental feeding practice in various aspects. eg- Environmental, Encourage Balance and Variety, Teaching about nutrition, Monitoring, Modeling, Involvement, Child control, Restriction for weight control (RWC), Restriction for Health (RH), Emotion Regulation/Food as Reward (ERFR) and Pressure (P).



(Figure- 1) The Flow diagram explains the Research Design.

2.1 Population and Sample

The present study was conducted in the Chengalpattu District of Chennai city, Tamil Nadu, India. In this study Adolescent population was selected between the age group of 15-23 years in which the Adolescents selected from School are of age group between 15-17 (N=133) and The Adolescent from College comes under the age group between 17-23 (N=221) from both UG and PG. They have actively participated in the Purposive Sampling and all the samples response was analysed based on the judgement of the researcher from all age group some Adolescents were identified and Selected as of having Food Neophobia and Picky Eating behaviour (n= 134) to those target samples from School the questionnaire developed based on standard questionnaire **Food Neophobia Scale (FNS) (Pliner & Hobden 1992)**, **Food Situation Questionnaire (FSQ) (Loewen & Pliner 2000)** containing 50 questions was distributed and to their parents (Mother/Father) questionnaire developed based on standard questionnaire **Comprehensive feeding practice questionnaire (Musher-Eizenman & Holub, 2007)** which contain set of 50 questions and that was given to the students and requested to make their parents to give response altogether it was collected on the next day whereas to the college students considering pandemic and nonavailability of the majority of students questionnaire for target adolescents and their parents was circulated through online medium.

2.2 Data and Sources of Data

A researcher requires many data-gathering tools or techniques (**Dr. Prabhat Pandey et.al 2015**). In this study, Primary data has been collected through Interviews and Questionnaires whereas Secondary data has been collected by using Google Scholar and Pubmed from the year 2011 to 2021. The database was searched using the term Food Neophobia, Picky Eating Behaviour, Food Neophobia and Picky Eating behavior among Adolescents, Food Neophobia and Picky Eating behavior among Adolescents in India, Adolescents Food choice, Adolescents eating behavior, Parental feeding practice, Maternal interaction with adolescents, parents influence on adolescent eating behavior, Impact of childhood experience towards food at the adolescent stage, Food Fussiness, Selective eating behavior among adolescents to identify any publications related to Food Neophobia and Picky Eating Behaviour among adolescents and also the Parental interaction to understand the importance of their care towards adolescents with this behavior.

2.3 Theoretical framework

Variables of the study contain dependent and independent variables. Food Neophobia, Picky Eating Behaviour, Preference of Food are dependent variables while Environmental and Parents attitude, Parental Feeding Practices under the subsection Environmental, Encourage Balance and Variety, Teaching about nutrition, Monitoring, Modeling, Involvement, Child control, Restriction for weight control (RWC), Restriction for Health (RH), Emotion Regulation/Food as Reward (ERFR) and Pressure (P) are independent variables. These variables are chosen to identify how they are influencing and affecting an adolescent's intake.

The qualitative study of **Claire Thompson et.al., (2015)** says that Picky eating behavior is a recent theoretical concept, and studies concerned about such behavior among children are booming due to lack of diversity in their diet besides that the picky eating behavior among adolescents remains under-researched. **S.R. Jaeger et.al (2017)** says that **Food neophobia (FN)** is a strong influence on food preferences another study by **Thomas R. Alley et.al., (2018)** gives a clear bird's eye view over the phenomena of Food Neophobia are a) A Species-typical characteristic generally found in omnivores, b) A Psychological trait that varies across individuals within a species, and c) A Mental disorder that interferes with nutritional intake and/or social functioning. These concepts raised the question adolescent is the age group where they have sufficient knowledge regarding healthy (Fruits and Vegetable intake) and unhealthy food (high fat, junk foods) in which what kind of food they prefer makes difference.

The study of **So-young Kim et.al., (2020)** says that although Picky Eating behavior improves with age still it exists in its because of a lack of timely interventions during childhood. Indeed, nutritional imbalances among adults are currently being recognized, particularly among those in their early 20s which is acceptable **Thomas R. Alley et.al., (2011)** says that Neophobia can affect diet, diet can affect neophobia, and **Kauer et.al., (2016)** study suggest that picky eating may lead to a subclinical manifestation of Avoidant Restrictive Food Intake Disorder. when we look over the causing factors of FN and PEB is Parents **Car Mun Kok et.al., (2019)** says that in many studies research shows that parent modeling positively affects youths' dietary behaviors, and the parents in this study used mealtimes to model healthful eating and were observed modeling and discussing healthful eating at the same time children also imitated unhealthy eating behaviors from parents. All these studies and concepts helped to take an initiative to survey this entitled topic.

2.4 Questionnaire

For the baseline study, to assess Food Neophobia and Picky Eating Behaviour among Adolescents and Parental Feeding Practices, two separate questionnaires were used. At first Adolescent questionnaire which is a Self -structured questionnaire which was developed based on standard **Food Neophobia Scale (FNS) (Pliner & Hobden 1992)** which rates willingness to eat novel foods as well as few questions were developed based on **Food Situation Questionnaire (FSQ) (Loewen & Pliner 2000)** which shows Children's willingness to eat novel foods in different situations. The pattern of scoring items was based on the 5-Point-Likert Scale (5: always, 4: often, 3: sometimes, 2: rarely, 1: never) which has 50 close-ended questions. The scoring key of the Food Neophobia and Picky Eating Behaviour Questionnaire was used to classify Adolescent Preference of Food, Food Neophobia and Picky Eating Behaviour, Environment and Parental attitude associated. These are calculated as the arithmetic mean of the scale item. Therefore, the score in each category ranges from 1 to 5, with the highest overall mean indicates Food Neophobia and Picky Eating Behaviour. The second set of the questionnaire is for parents, To assess the parental practices, a Comprehensive feeding practice questionnaire (CFPQ) is used. The questionnaire was developed by (Musher-Eizenman & Holub, 2007) to assess parental

feeding practices. The instrument contained 12 factors 'Environment', 'Encourage Balance and Variety', Teaching about Nutrition', 'Monitoring', 'Modeling', 'Involvement', 'Child Control', Restriction for Weight Control', Restriction for Health', 'Emotion Regulation'/ 'Food as Reward', 'Pressure'. with a total of 49 items that measured feeding practices using a 5-point Likert scale. A self-structured questionnaire was developed based on a comprehensive feeding practices questionnaire. The CFPQ, a parent-report instrument. In this study, 50 questions are used.

III Results

2.5 Part-1 Response of Adolescents

2.5.1 Socio-Demographic Characteristics

Section-A

Profile of Adolescents with Food Neophobic and Picky Eating Behaviour

Table-1 Distribution of table based on Age

Age (years) (15-23 years)	Response		Percentage %	
	Male	Female	Male	Female
15-17	16	22	11.9	16.4
17-19	0	74	0	55.2
19-21	0	50	0	37.3
21-23	0	21	0	15.7

2.5.2 Preference for Food

Section-B: Under each category, adolescent's preference towards Fruits and Vegetables and Snacks/Food was noted to understand how Food Neophobia and Picky Eating Behaviour are associated with Preference of Food and Environment or Parental attitude.

2.5.2.1 Fruits/Vegetable intake -The study of **Mathias Hald et.al (2021)** concluded that Even though adolescents preferred unhealthy foodstuffs they also liked to consume healthy than unhealthy food items in the same way in this study Adolescents with Food Neophobia and Picky Eating Behaviour showed interest to consume Fruits and vegetables by 42.5 %.Some mothers may not include some variety of Vegetables which may influence adolescents' intake but in this study for 38.8% of them reported that mothers preparing limited variety and also the color of the vegetable 47.8% didn't influence their vegetable intake. Some adolescents preferred fruits and vegetables as it provides health 32.8% and Some like to eat fruits because of its sound taste 23.9%.

2.5.2.2 Snacks/Food intake- Adolescents liked to eat snacks outside by 37.3% and Home prepared snacks 35.1%. Adolescents liked to eat sweets by 28.4% and occasionally salty food items by 29.1%. Apart from As we know emotion can make us eat less as well more in the same in this study emotional disturbance like Boredness influenced to eat snacks for 33.6% of them while Upset feeling didn't make 41.8% of adolescents to eat more. it can be seen that 39.6% of them reported that fear of gaining weight doesn't influence to avoid certain foods. The study of **So-young Kim et.al., (2020)** describes that they among the total participants 46.0% of them has mentioned that some negative experience occurred during early school age either by their School/Nutrition teachers forced them to eat made them develop Picky Eating Behaviour in supporting to this literature even in this study 25.4% of adolescents reported that their bad experience made them avoid certain foods .30.6% of them liked to try a new variety of foods prepared at home.37.3% reported that if any food/snack available at home that makes them eat at the same time 30.6% of them have also reported that they like to eat a new variety of foods prepared at home as well as 26.9% like to try unusual foods.

2.5.3 Food Neophobia and Picky Eating Behaviour

2.5.3.1 Fruits/Vegetable intake - Idowu-Adebayo et.al (2020) says that humans vary substantially in their attitude towards novel foods which with some may have a strong interest in trying them while others may display a lack of enthusiasm. In this study, 30.6% of adolescents sometimes preferred fruit and Vegetables even if they don't know what it was. 31.3% of adolescents won't like to taste a fruit if it looks strange. It may be home or outside (either School/College) if new fruit provided means 24.6% of

adolescents liked to try it sometimes. In severe cases, someone with FN and PEB preference may get limited with only one variety for instance some may like to eat the only mango in fruits and Potato in vegetables but in this study happily, 51 % of adolescents fruit and vegetable intake wasn't limited with only one variety of fruit and vegetables.

2.5.3.2 Snacks/Food intake - The results show that Family Income didn't influence **35.8%** of adolescents to try a variety of food but **32.1%** liked to try different ethnic foods apart from its cost. In this study, Some sensory characteristics like appearance didn't make to avoid by **26.9%** of them and if the taste wasn't good **30.6%** have avoidance towards food. **32.1 %** get rarely afraid to eat food that they don't know before. **31.3%** of them reported that they have never wasted food just because it's not a favorite food **and 29.1%** of them have never avoided trying a food even if one of its ingredients is not familiar, Preference towards a new dish apart from the disliked ingredient present on it **26.9%**, Won't try an unfamiliar food by **32.1%** and Afraid to eat unfamiliar foods by **32.1%**, Never been called a picky eater by **33.6 %**, Never consider themselves as a picky eater by **39.6 %**.

2.5.4 Environment and Parental attitude

2.5.4.1 Fruits/Vegetable intake -In the result, it can be seen that **39.6%** of adolescents reported that parent's compulsion never made them try fruits and vegetables.**23.9%** reported that they try a new vegetable at home sometimes and at friend's house they try to eat new vegetable sometimes **28.4%**.

2.5.4.2 Snacks/Food intake - At outside (hotel/restaurant) their favorite food was preferred by **35.8%** and as guests to someone's house **27.6%** try to eat even though they disliked it. On a family trip, **40.3%** reported that if the taste was good they would like to eat the served new variety of food and At Family Function **49.3%** try both familiar and New Foods. If Mother prepared food that doesn't like means **26.9%** skip the meal.**32.1%** eat the meals completely if they eat along with their parent's even though they disliked the food **25.4%** parent's encouragement doesn't make them try certain foods.**26.1%** try to eat food after someone's advice on healthy eating.**45.5%** Favourite Food won't be changing every year

2.6 Part -2 Parental Feeding Practice Response

2.6.1 Socio-Demographic Characteristics

Section-A

Profile of Parental Feeding Practice Response

Table -2 Distribution of Subject based on Socioeconomic Status

Socioeconomic Status- Family Income	No of respondents	Percentage %
<25,000	28	20.9
25,000-<50,000	23	17.2
50,000-<75,000	25	18.7
75,000-<100,000	29	21.6
100,000-<150,000	13	9.70
≥ 150,000	16	11.9
Occupation Mother's Occupation		
Agriculture	1	0.7
Business	6	4.5
Private service	12	8.1
Public service	5	3.7
House wife	109	81.3
Father's Occupation-		
Agriculture	7	5.2
Business	23	17.2
Private service	45	33.6
Public service	14	10.4
Educational status Mother's Educational Status		
Literate	102	76.11
Illiterate	31	23.13
Father's Educational status		
Literate	106	79.10
Illiterate	27	20.14
Mother's Highest educational qualification		
SSLC	48	35.8
HSC	16	11.9
Diploma	0	0

Bachelor degree	30	22.4
Master degree	10	7.7
Others	19	14.1
Father's Highest Educational Qualification		
SSLC	38	28.4
HSC	15	11.2
Diploma	13	9.7
Bachelor degree	25	18.7
Master degree	11	8.2
Others	20	14.1
Type of Family		
Nuclear Family	105	78.4
Joint Family	29	21.7

2.6.2 Section-B: This study tried to explore Parental Feeding Practices especially of Adolescents with Food Neophobia and Picky Eating Behaviour have been analyzed under various factors like Environment', 'Encourage Balance and Variety', Teaching about Nutrition', 'Monitoring', 'Modeling', 'Involvement', 'Child Control', Restriction for Weight Control', Restriction for Health', 'Emotion Regulation'/ 'Food as Reward', 'Pressure'

2.6.2.1 Environment

Jai K. Das et.al., (2017) says that Families, peers, institutions (like schools), and the social environment are also strong predictors of adolescent health. The study results show that 47.8% of parents reported that they Purchase only Healthy Foods. Availability of unhealthy Foods like Snacks by 36.6% and sweets availability is 38.8% but it seems they make it available occasionally. 28.4% reported that there is the availability of a variety of healthy foods at each meal served at home.

2.6.2.2 Encourage Balance and Variety

The encouragement given by parents to try healthy Food is by 75.4 of them, variety of foods by 41% Encourage their child to prepare healthy snack by themselves at home by 35.1%, Encourage the child to try a variety of Fruits and Vegetables 65%.

2.6.2.3 Teaching about Nutrition

Explaining food benefits in the prevention of disease and make their Adolescent child try new foods by 44.8% Explaining importance and Nutritional value of food by 41%, Discussing with their child about foods to eat and avoid is by 35.1% of the Parent's

2.6.2.3 Monitoring

43.3% of Parents reported that only sometimes they use to monitor their child consuming high fat foods.32.8% of them have been observed that their child consuming a lot of Junk foods by 32.8%, having a habit of eating roadside foods.28.4% of them reported that they keep track of their child preference for Sugary drinks

2.6.2.4 Modeling

Karina Silva Garcia et.al., (2018) throws light on Parental modeling of healthy consumption has been associated with children's healthy eating. In this study, 31.3% of parents say that even though they disliked certain foods they changed their behavior themselves for their children's. parents sometimes show their excitement in eating healthy food in front of children by 32.8%. Parents demonstrating healthy eating habits by 39.6%

2.6.2.5 Involvement

Wesley R. Barnhart et.al., (2021) study suggested that Picky Eating facets such as meal presentation, meal disengagement, and taste aversion (but not limited to food variety) were more strongly associated with eating concerns when mental health concerns and inflexible eating were higher likewise involving adolescents with such neophobia and picky eating behavior in some activities like menu planning, eating along with parents, Involving in grocery shopping, getting their support during meal preparation can help reduce psychological impairment while this studies result shows that parents are sometimes involving their child in menu planning for family meals 29.1% and 50.7% of the parents are encouraging a child to sit along with them during meal times by, Encouraging in grocery shopping by 31.3% of parents, Usually ask child's support in the preparation of meals by 34.4% of the parents.

2.6.2.6 Child Control

31.3% of the Parents reported that they Sometimes allow their children to leave the table even if they didn't complete eating. 40.3% of parents allow their children to eat whatever food they want and Snacks by 41.8%. 38.8% of parents sometimes are allowing to choose food from what is being served. 29.9% of parents never cook again food separately if served food was disliked by the child.

2.6.2.7 Restriction for Weight Control

Fabrcia R. Freitas et.al (2017) emphasize that parents restrict their children's intake which depends on the availability and amount of generally palatable and unhealthy foods at the same time while parents applying such practices are mainly driven by their desire to improve their child's health or modify their weight. In this study 35.1% of the Parents reported that occasionally they restrict their children food intake and 29.1% of parents are allowing to watch tv/mobile while eating, 47.0% of parents making their children consume fresh juices prepared at home instead of sugary drinks from outside, 34.3% allowing the child to consume a variety of food instead of focusing only one variety, 39.6% of them restrict unhealthy fat and prefer healthy fat for their children

2.6.2.8 Restriction for Health

The results of this study indicate that 38.1% of them prepare homemade snacks for their children. Sometimes Parents make sure that their child doesn't eat their favorite food too much 35.8% as well as make sure that they aren't consuming junk foods and sweets 31.3% and High-fat foods 35.1%.

2.6.2.9 Emotion regulation/Food as a reward

Dominika Guzek et.al., (2019) emphasize that lack of physical activity and Food reward practice can raise the cravings for sweets than other products it results from the fact that highly rewarding activities (such as sport practicing) are mediated in the human brain by the same opioid system, as sweetness palatability. Lack of such activities may lead to urge to increase sweets intake and reducing the variety of food products, both being typical for Food Neophobia while the parents in this study reported that 32.8% of them occasionally provide their children favorite food as well as snacks as a reward for any achievement or else for helping in household works, 24.6% of parents say that their children have a habit of watching tv while eating snacks. 34.3% of the parents reported that occasionally Happy mood will make adolescents move out for having food outside which was reported to be by 34.3% sometimes. Inversely Parent's report shows that a bad mood doesn't make their adolescent child avoid eating as well as even they are left alone at home they aren't emptying the available foods at home 38.1%. In Function or Party is the place where we lose control and eat more but in this study, Parents shows inverse response 51.5% says that their children aren't like that.

2.6.2.10 Pressure

The study of **Karina Silva Garcia et.al., (2018)** says that parental pressure to eat has been associated with poor food intake and picky eating inversely Jordan M. Ellis et.al., (2018) says that being pressured to eat was not associated with Picky Eating but it is related to Taste Aversion. The parents of the adolescents of FN and PEB response states that 29.1% of them in some instances they won't allow their child to leave the place until he/she eat the foodstuffs on the plate completely and they have to eat all the vegetables even though if it was not their favourite. 34.3% of parents make the child eat more if they eat only small portions, 31.3% of parents report that sometimes they make their child eat more (2 or more times) if they say finished eating.

2.7 Statistical Analysis

This section deals with results on the relationship between Preference of Food, Food Neophobia and Picky Eating Behaviour, Environment or Parental attitude. The response by the Adolescents was statistically analyzed (version 14.0) by Karl Pearson's Correlations at a significance level of 0.01.

Table- 3 Correlations between Preference of Food, Food Neophobia and Picky Eating Behaviour, Environment or Parental attitude

		Preference of Food Score	Food Neophobia and Picky eating behaviour	Environment or Parental attitude
Preference of Food Score	Pearson Correlation	1	.570**	.550**
	Sig. (2-tailed)		.000	.000
	N	134	134	134
Food Neophobia and Picky eating behaviour score	Pearson Correlation	.570**	1	.555**
	Sig. (2-tailed)	.000		.000
	N	134	134	134
Environment or Parental attitude score	Pearson Correlation	.550**	.555**	1
	Sig. (2-tailed)	.000	.000	
	N	134	134	134

** . Correlation is significant at the 0.01 level (2-tailed).

Significant Correlation between Food Neophobia and Picky Eating Behaviour and Environment or Parental attitude- Preference of Food was **highly significant and Negatively correlated** with other 2 factors are Food Neophobia and Picky eating behavior ($r = .570^{**}$, $p=.000$), Environment or Parental attitude ($r= .550^{**}$, $p=.000$). As a result, the correlation analysis on Preference of Food shows there is a highly significant and Negative correlation between Food Neophobia and Picky eating behavior and Environment or Parental attitude. **Significant Correlation between Preference of Food and Environment or Parental Attitude-**Food Neophobia and Picky eating Behaviour **highly significant and Negatively correlated** with other 2 factors they are Preference of Food ($r= .570^{**}$, $p=.000$) and Environment or Parental attitude ($r= .550^{**}$, $p=.000$). **Significant Correlation between Food Neophobia and Picky Eating Behaviour and Environment or Parental Attitude-**Environment or Parental attitude was **highly significant and Positively correlated with other 2** factors are Food Neophobia and Picky eating behavior ($r= .550^{**}$, $p=.000$) and Environment or Parental attitude ($r= .550^{**}$, $p=.000$). As a result, the correlation analysis on **Environment or Parental Attitude** suggests that there is a **Highly significant positive correlation between Preference of Food and Food Neophobia &Picky Eating Behaviour.**

IV Discussion

During childhood, parents lay the foundation for the development of eating behavior. During the period of adolescents, the involvement of the parents gets declines, as well as adolescents' eating patterns, may not be in an appropriate way. Adolescents' development of Food Neophobia and Picky Eating Behaviour can be reduced by the intake of variety in the diet. Therefore this study aimed to study Food Neophobia and Picky Eating Behaviour among Adolescents and also their Parental Feeding Practice. From the study results of Adolescents,' it is clear that Environment and Parental attitude is associated with the development of Food Preference and Food Neophobia and Picky Eating Behaviour. The study results of parents shows that the majority of the parents are providing healthy foods and They are aware of the adolescents' preference towards high fat/snack. sugary drinks outside and also about the usage of mobile/tv while eating. Parents are also involving their adolescents in activities like grocery shopping, menu planning for family, helping in preparation of meals and also demonstrating healthy eating practice and Parents have modified themselves by consuming disliked food and encouraged their children to sit along with them while eating apart from this parent's need to be strict in areas like controlling their eating behavior and allowing them to eat preferable food /snack for instance suppose in lunch variety of meals are given, if they don't like one meal means allowing them to choose another instead of making them eat.while they are strict in areas like restricting their intake when they overdo and also pressure to eat them when haven't complete eating and Encouraging their children to try a variety of food instead of focusing on only one variety and also restricting habit of watching tv/mobile while eating, outdoor snacks, sugary drinks and providing healthy fruit juices and homemade snacks which will improve their health and reduce the risk of getting obese at the same time there are some circumstances providing food as a reward are also practiced. Emotions control us if we don't have control over it. There are many kinds of emotions but everything falls under two category i.e good and bad while the happy feeling makes an adolescent move out for having food outside even 34.4% of parents agreed with that and 26.1%. of parents also reported that Bad mood never influenced their children to avoid food. Another place where everyone loses their control of overeating is at a function or party but 51.5% of parents reported that their children have never lost their control over overeating at a function/party. This shows that parents are supportive in the areas like Encourage balance and variety, Teaching about nutrition, Monitoring, Modeling, Restriction for weight, Restriction for health, Emotion regulation, Pressure while parenting area that can be improved is Environment, Child control, Involvement, Food as a reward.

V Conclusion

Adolescents with FN and PEB diet lacks in variety which can impact their future health. This study concludes that Environment and Parental attitude are associated with Food preference as well as the development of Food Neophobia, and Picky Eating Behaviour. The study also aimed to understand their parental feeding practices which were examined under 12 factors and the results show that parents are supportive in the areas like Encourage Balance and Variety, Teaching about nutrition, Monitoring, Modeling, Restriction for weight, Restriction for Health, Emotion regulation, Pressure. Parenting area that can be improved is Environment, Child control, Involvement, Food as a reward.

VI Recommendations

Someone said “Health is wealth “that sounds right too! To be a healthy person we need an adequate amount of variety in the diet especially of adolescents as they are in a rapid growth phase. Food Neophobia and Picky Eating Behaviour both are interrelated concepts that limiting a person’s intake of adding variety to the diet hence some of the recommendations that help to resolve are

- **Healthy environment Healthy life-** Environment is an important factor that is influencing eating behavior so keep your environment stored with healthy fruits and vegetables for a healthy life.
- **Happy meals with Family** - Parents and Adolescents can plan and spend time together while eating such practice develops bonding as well as helps the parents to identify their children eating behavior and modify it by sharing their knowledge.
- **Plan your wellbeing by menu planning**– Menu planning helps to increase awareness about healthy recipes among adolescents hence introducing such habits among them is appreciable.
- **New but not New** - Food Neophobia and Picky Eating Behaviour are not a newly discovered concept, only the awareness about it to the public is new. Every individual should become aware of such behavior to encounter the disease hence proper nutrition intervention programs can be conducted.

VII Limitation of the study

- In this study majority of the population are Females
- The Samples of Females from college who were pursuing Nutrition and Dietetics as major was selected for the study

VIII Suggestion for further studies

- This study paves the way for more studies with Indians on these behaviors FN and PEB.
- A study can be conducted on other age groups also.
- A study can be performed and analyze various factors like age, gender, socioeconomic status, and educational level associated with Food Neophobia, and Picky Eating behavior.
- The future researcher can focus on how far the avoidance was towards food or food groups and its influence on health.
- An Awareness program can be conducted on FN and PEB to encourage healthy eating habits and its importance.

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