The Association of Parents Feeding Practices and Eating Behaviors of Children Between 2 to 6 Ages in Türkiye

Türkiye'de 2-6 Yaş Arası Çocukların Yeme Davranışları ile Ebeveynlerinin Beslenme Uygulamalarının İlişkisi

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ABSTRACT

Objective: To evaluate the relationship between the feeding practices of parents of preschool children and the eating behaviors of children.

Material and Methods: The parents who had 2 to 6 years of age children without chronic disease and had completed the transition to supplementary foods were included (n=315). Family demographic, socioeconomic information and children's anthropometric measurements were recorded. The parents completed the "Child Feeding Questionnaire (CFQ)", and "Children's Eating Behavior Questionnaire (CEBQ)".

Results: The mean age of the children participating were 46±14.63 months and 46.7% (147/315) of the children were girls. As parents' perceived responsibility for feeding increased, the children's food responsiveness tended to decrease. In parents who had concerns about their child's weight, their children's eating behavior was associated with higher food responsiveness and enjoyment of food and lower satiety responsiveness, slowness in eating, and emotional undereating.

Conclusion: Parents' healthy eating attitudes can be part of a process that encourages children to model healthy eating behaviors. 'Satiety responsiveness', 'slowness in eating', and 'emotional under-eating behaviors were observed more frequently with the attitude of restriction and pressure for eating.

Key Words: Children, eating behavior, feeding, parents

ÖZ

Amaç: Okul öncesi dönemdeki çocukların ebeveynlerinin beslenme uygulamaları ile çocukların yeme davranışları arasındaki ilişkinin değerlendirilmesi.

Gereç ve Yöntemler: Çalışmaya 2-6 yaş arası kronik hastalığı olmayan ve ek gıdaya geçişi tamamlamış çocukları olan ebeveynler dahil edildi (n=315). Ailenin demografik, sosyoekonomik bilgileri ve çocukların antropometrik ölçümleri kaydedildi. Ebeveynler tarafından "Çocuk Besleme Anketi (CFQ)" ve "Çocukların Yeme Davranışı Anketi (CEBQ)" doldurduldu.

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Bulgular: Araştırmaya katılan çocukların yaş ortalaması 46±14.63 ay olup, çocukların %46.7'si (147/315) kız cinsiyettir. Ebeveynlerin beslenme konusundaki algılanan sorumluluğu arttıkça, çocukların gıdaya duyarlılığı azalma eğilimindeydi. Çocuklarının kilosu hakkında endişeleri olan ebeveynlerde, çocuklarının yeme davranışı, daha yüksek gıda duyarlılığı ve yemekten zevk alma ve daha düşük tokluk duyarlılığı, yemede yavaşlık ve duygusal yetersiz beslenme ile ilişkiliydi.

Sonuç: Ebeveynlerin sağlıklı beslenme tutumları; çocukların sağlıklı beslenme davranışlarını modellemesini teşvik eden bir sürecin parçası olabilir. Yeme konusunda kısıtlama ve baskı tutumuyla birlikte 'doymaya duyarlılık', 'yemede yavaşlama' ve 'duygusal yetersiz yeme' davranışları daha sık gözlendi.

Anahtar Sözcükler: Çocuk, yeme davranışı, beslenme, ebeveyn

INTRODUCTION

The first five years of life are a time of rapid physical growth and change. During these early years, children are learning what, when, and how much to eat based on the transmission of cultural and familial beliefs, attitudes, and practices surrounding food and eating (1,2). Previous studies have indicated that a positive family system may be part of a process that establishes and promotes beneficial health behaviors through role modeling, provision of healthy foods, and support for engaging in healthy eating behaviors (3-6).

Parental feeding attitudes can be basically categorized as child-centered and parent-centered. In child-centered feeding attitudes, parents consider their children's expectations, needs, and behaviors while meeting their age-appropriate and tangible needs during meal times. In parent-centered feeding attitudes, there is a high level of parental control and low responsiveness to the children's intangible needs while meeting their tangible needs (7).

As far as we know, children's eating behaviors and their associations with parents feeding practice has investigated in few studies in Türkiye. Two studies conducted in Türkiye have studied the effect of children's eating behaviors and parental feeding style on association with childhood obesity. In the first study, the age group has chosen primary school children and the second was conducted in a small sample of preschool children. A relationship between parents' eating pressure and obesity has been found in both studies (8,9). We aimed to present the parents feeding practices and eating behaviors of preschool children in a larger sample by applying two nutritional attitude questionnaires in the urban location of Türkiye.

MATERIALS and METHODS

This prospective, cross-sectional study was conducted between May and December 2019 in Ankara city in Türkiye. The parents of children who presented to the 'General Pediatrics' and 'Social Pediatrics' outpatient clinics of our hospital were invited to participate. A total of 315 children between the ages of 2 and 6 years were included in the study. Children who were still breastfeeding, had any comorbid diseases or had a parent with a psychiatric illness were excluded. The parents who were eligible and whose written consent was obtained were included in the study. Information forms, questionnaires completion and anthropometric measurements were made by the same researcher.

Assessment Tools

Parents who participated in the study completed forms providing informed consent, family demographic and socioeconomic information (monthly family income), and their children's age and anthropometric measurements. In addition, the parents also completed the CFQ and the CEBQ, respectively. The questionnaire form was completed with a face to face interview. The CFQ was developed by Birch et al. (10) and the Turkish validation and reliability study was conducted by Camci et al. (7) Turkish validation indicated strong support for the dominant seven-factor structure originally proposed by Birch et al. (10) with the resultant seven factors explaining 73.1% of the variance.

The CEBQ was developed by Wardle et al. (11) and the Turkish validation and reliability study was conducted by Yilmaz et al. (12). For the CEBQ Turkish validation according to exploratory factor analysis, eight subscales explain 58.2% of the variance. Reliability coefficients (Cronbach Alphas) ranged from 0.61 to 0.84. Confirmatory factor analysis was calculated as 0.049 according to the Root Mean Square Error of Approximation (RMSEA) index of fitness and this analysis revealed suitability of the scale for the Turkish population. Factor structure, internal reliability, and subscale correlations were similar to the original CEBQ. The CFQ and CEBQ both use Likert-type scales with 5 response options.

The CFQ consists of 21 statements in 5 subscales including 'perceived responsibility', 'monitoring', 'concern about child weight', 'restriction' and 'pressure to eat'. The statements in the questionnaire are answered from one of five sets of response options (scored from 1 to 5 respectively): 'never', 'seldom', 'half of the time', 'most of the time', 'always'. The CEBQ consists of 35 statements in 8 subscales including 'food responsiveness', 'emotional overeating', 'enjoyment of food', 'desire to drink', 'satiety responsiveness', 'slowness in eating', 'emotional undereating', and 'food fussiness'. Response options for all statements are 'never', 'seldom', 'sometimes', 'often', 'always' (scored from 1 to 5 respectively).

Body mass index (BMI) was calculated using the formula: body weight (kg)/(height (m))^2. BMI standard deviation scores

(SDSs) were determined using age- and sex-appropriate growth percentile curves from the Centers for Disease Control and Prevention for children over 2 years of age. Children with BMI SDS below -2 were regarded as thin or underweight, those between -2 and +2 as normal weight, and those above +2 were regarded as overweight or obese (13).

The participants' income level data were compared using hunger and poverty line data announced monthly by the 'Confederation of Turkish Trade Unions'. As the study covered a period of 6 months, comparisons were based on data from June 2019 (14).

Statistical analyses

Based on data presented in the literature, power analysis calculation using e-picos (https://www.e-picos.com/) software showed that for 90% power with 5% probability of type I error, a sample size of 300 was needed.

Data obtained from questionnaires were analyzed using IBM SPSS Statistics version 22.0 software package. Descriptive data were presented using frequency, percentage and mean with standard deviation. Normal distribution of the variables was evaluated using Shapiro–Wilk test. P-values below 0.050 were considered statistically significant. When evaluating the differences between the groups, Mann–Whitney U and Kruskal–Wallis H tests were used for non-normally distributed variables. Standardized z values were given for the Mann–Whitney U test. If significant results were observed in the Kruskal–Wallis H test, the group responsible for the difference was identified with a post-hoc multiple comparison test. Spearman's correlation coefficient (R) was used when analyzing relationships between non-normally distributed variables. Cronbach's alpha reliability coefficient was used to evaluate the reliability of the scales.

The study was planned under the principles of the Declaration of Helsinki and was approved by the Local Ethics Committee of Research Hospital.

RESULTS

315 children (147 girls, 46.7%) were included in the study. The children's mean age was 46.18±14.63 months (median age 44 months, min-max: 26-60), with no significant sex-based difference (p=0.562). The anthropometric values of the participants are presented in table I. The mean BMI of the children participating in the study was 15.28±2.10 (9.83-30.61) kg/m^2. BMI SDS was above +2 in 5.12% (n=16) of the children and below -2 in 8.96% (n=28).

The mother alone was the primary caregiver for 52.1% (n=164) of the children, while both the mother and father were primary caregivers for 41.9% (n=132).

Maternal education level was high school for 30.6% (n=96) and university for 20.4% (n=64) of the mothers; paternal education level was high school for 35.4% (n=111) and university for 22.6% (n=71) of the fathers.

Twenty-four point eight percent of the parents who participated in the study stated that they found their child thin. Among these parents, the BMI value of the child of 23.1% of those who perceive their child as extremely thin is below -2 SDS, while the 76.9% is between -2 and +2 that found to be normal. Similarly, while only 17.9% of the parents who perceive their child as thin has a BMI value below -2 SDS, 82.1% of the child's BMI SDS value is between -2 and +2. Among the parents who participated in the study, 57.1% of those who perceived their children as fat were found to have a BMI SDS value between -2 and +2, while 42.9% of their children had a BMI SDS value above + 2.

The participating parents' responses to the CFQ and CEBQ are shown in Tables II and III, respectively.

In correlation analyses of the relationships between CFQ subscales, 'perceived responsibility' showed weak but statistically significant positive correlations with 'concern about child weight' and 'pressure to eat' (r=0.189 and r=0.234, respectively). A weak positive correlation was also detected between 'restriction' and 'concern about child weight' (r=0.185) and there was a moderate positive correlation between 'restriction' and 'pressure to eat' (r=0.359).

In correlation analyses of the CEBQ subscales are given in Table IV. The children's 'food responsiveness' showed weak to moderate positively correlation with their 'emotional overeating', 'enjoyment of food', 'desire to drink', and 'food fussiness' (r=0.329, r=0.485, r=0.178, and r=0.232, respectively) and was

Table I: Age, gender, weight, height, BMI mean and median values of the children participating in the study

Number (n)	Mean-Median	Minimum-Maximum	SD
Total (n=315) Age (Month)	46.18-44	26-60	14.63
Female (n=147) Age (Month)	46.2-44	24-58	14.96
Male (n=168)	46.15-46	26-54	14.39
Height (cm) (n=315)	102.29-102	70-133	10.67
Weight (kg) (n=315)	16.35-16	9-32	3.83
BMI (kg/m^2) (n=315)	15.53-15.28	9.83-30.61	2.10

SD: *Standard Deviation,* ***BMI:*** *Body Mass Index*

Table II: Distribution of CFQ responses of parents who participated in the study

Perceived responsibility	Always n(%)	Most of the time n(%)	Half of the time n(%)	Seldom n(%)	Never n(%)
When your child is at home, how often are you responsible for feeding her?	97 (30.8)	98 (31.1)	64 (20.3)	37 (11.7)	19 (6)
How often are you responsible for deciding what your child's portion sizes are?	80 (25.4)	120 (38.1)	69 (21.9)	33 (10.5)	13 (4.1)
How often are you responsible for deciding if your child has eaten the right kind of foods?	153 (48.6)	128 (40.6)	25 (7.9)	7 (2.2)	2 (0.6)
Monitoring					
How much do you keep track of the sweets (candy, ice cream cake, pies, pastries) that your child eats?	234 (74.3)	69 (21.9)	7 (2.2)	4 (1.3)	1 (0.3)
How much do you keep track of the snack food (potato chips, Doritos, cheese puffs) that your child eats?	235 (74.6)	66 (21)	5 (1.6)	8 (2.5)	1 (0.3)
How much do you keep track of the high-fat foods that your child eats?	234 (74.3)	65 (20.6)	8 (2.5)	5 (1.6)	3 (1)
Concern about child weight					
How concerned are you about your child eating too much when you are not around her?	75 (23.8)	64 (20.3)	53 (16.8)	45 (14.3)	78 (24.8)
How concerned are you about your child having to diet to maintain a desirable weight?	72 (22.9)	41 (13)	39 (12.4)	34 (10.8)	129 (41)
How concerned are you about your child becoming over weight?	97 (30.8)	48 (15.2)	51 (16.2)	29 (9.2)	90 (28.6)
Restriction					
I have to be sure that my child does not eat too many sweets (candy, icecream, cake or pastries)	268 (85.1)	24 (7.6)	13 (4.1)	4 (1.3)	6 (1.9)
I have to be sure that my child does not eat too many high-fat foods	262 (83.2)	30 (9.5)	9 (2.9)	6 (1.9)	8 (2.5)
I have to be sure that my child does not eat too much of her favorite foods	226 (71.7)	45 (14.3)	22 (7)	7 (2.2)	15 (4.8)
I intentionally keep some foods out of my child's reach	210 (66.7)	43 (13.7)	15 (4.8)	14 (4.4)	33 (10.5)
I offer sweets (candy, ice cream, cake, pastries) to my child as a reward for good behavior	58 (18.4)	96 (30.5)	25 (7.9)	47 (14.9)	89 (28.3)
I offer my child her favorite foods in exchange for good behavior	64 (20.3)	89 (28.3)	18 (5.7)	42 (13.3)	102 (32.4)
If I did not guide or regulate my child's eating, she would eat too many junk foods	165 (52.4)	65 (20.6)	17 (5.4)	20 (6.3)	48 (15.2)
If I did not guide or regulate my child's eating, she would eat too much of her favorite foods	179 (56.8)	68 (21.6)	15 (4.8)	16 (5.1)	37 (11.7)
Pressure to eat					
My child should always eat all of the food on her plate	98 (31.1)	108 (34.3)	38 (12.1)	15 (4.8)	56 (17.8)
I have to be especially careful to make sure my child eats enough	184 (58.4)	78 (24.8)	17 (5.4)	13 (4.1)	23 (7.3)
If my child says `I'm not hungry", I try to get her to eat anyway	58 (18.4)	72 (22.9)	27 (8.6)	30 (9.5)	128 (40.6)
If I did not guide or regulate my child's eating, she would eat much less than she should	158 (50.2)	59 (18.7)	20 (6.3)	19 (6)	59 (18.7)

weakly negatively correlated with their 'satiety responsiveness' and 'slowness in eating' behaviors (r=-0.270 and r=-0.217, respectively). The children's 'satiety responsiveness' was moderately positively correlated with their 'slowness in eating', 'desire to drink' and 'emotional undereating' behaviors (r=0.383, r=0.251 and r=0.330, respectively) and negatively correlated with their 'food fussiness' and 'enjoyment of food' (r=-0.368 and r=-398 respectively).

Correlation analyses of the relationships between CFQ and CEBQ subscales revealed that parental 'concern about child weight' showed weak positive correlation with children's 'food responsiveness' and 'enjoyment of food' (r=0.138 and r=0.210, respectively) and weak negative correlation with their 'satiety responsiveness', 'slowness in eating', and 'emotional undereating' behaviors (r=-0.140, r=-0.129, and r=-0.160, respectively). Parental 'pressure to eat' attitudes were weakly negatively correlated with the children's 'enjoyment of food' (r=-0.191) and weakly positively correlated with the children's 'satiety responsiveness', 'slowness in eating', and 'emotional undereating' behaviors (r=0.172, r=0.204, and r=0.204, respectively). There were also weak positive correlations between parental 'restriction' and the children's 'food responsiveness', 'satiety responsiveness', and 'emotional undereating' behaviors (r=0.194, r=0.130, and r=0.165, respectively). Correlation analyses of the relationships between CFQ and CEBQ subscales are given in table V.

When the CFQ and CBEQ subscales were compared based on family income level, 'pressure to eat' was less common among parents with a monthly income 2.100 TL or lower (hunger line: 2067 TL) compared to parents with a monthly income of 6.800 TL or higher (poverty line: 6733 TL) (chi-square=9.787, p=0.007).

Table III: Distribution of CEBQ responses of parents who participated in the study

	Never n(%)	Seldom n(%)	Sometimes n(%)	Often n(%)	Always n(%)
Food responsiveness					
My child's always asking for food	35 (11.1)	104 (33)	114 (36.2)	46 (14.6)	16 (5.1)
If given the chance, my child would always have food in his/her mouth	142 (45.1)	84 (26.7)	54 (17.1)	25 (7.9)	10 (3.2)
Even if my child is full up, s/he finds room to eat his/her favourite food	96 (30.5)	96 (30.5)	63 (20)	32 (10.2)	28 (8.9)
If allowed to, my child would eat too much	251 (79.7)	39 (12.4)	13 (4.1)	7 (2.2)	5 (1.6)
Given the choice, my child would eat most of the time	147 (46.7)	80 (25.4)	61 (19.4)	17 (5.4)	10 (3.2)
Emotional overeating					
My child eats more when worried	252 (80)	48 (15.2)	12 (3.8)	2 (0.6)	1 (0.3)
My child eats more when annoyed	265 (84.1)	38 (12.1)	6 (1.9)	6 (1.9)	0 (0)
My child eats more when anxious	259 (82.2)	40 (12.7)	13 (4.1)	3 (1)	0 (0)
My child eats more when s/he has nothing else to do	209 (66.3)	52 (16.5)	35 (11.1)	16 (5.1)	3 (1)
Enjoyment of food					
My child enjoys eating	43 (13.7)	64 (20.3)	111 (35.2)	46 (14.6)	51 (16.2)
My child loves food	80 (25.4)	79 (25.1)	101 (32.1)	33 (10.5)	22 (7)
My child finishes his/her meal quickly	123 (39)	88 (27.9)	65 (20.6)	20 (6.3)	19 (6)
My child looks forward to mealtimes	83 (26.3)	92 (29.2)	76 (24.1)	35 (11.1)	29 (9.2)
My child is interested in food	57 (18.1)	71 (22.5)	103 (32.7)	43 (13.7)	41 (13)
Desire to drink					
If given the chance, my child would always be having a drink	40 (12.7)	95 (30.2)	74 (23.5)	57 (18.1)	49 (15.6)
If given the chance, my child would drink contimously throughout the day	79 (25.1)	95 (30.2)	62 (19.7)	42 (13.3)	37 (11.7)
My child is always asking for a drink	102 (32.4)	78 (24.8)	62 (19.7)	43 (13.7)	30 (9.5)
Satiety responsiveness					
My child decides that s/he doesn't like food, even without tasting it	67 (21.3)	63 (20)	87 (27.6)	54 (17.1)	44 (14)
My child refuses new foods at first	47 (14.9)	69 (21.9)	84 (26.7)	63 (20)	52 (16.5)
My child leaves food on his/her plate at the end of a meal	27 (8.6)	67 (21.3)	119 (37.8)	69 (21.9)	33 (10.5)
My child is difficult to please with meals	51 (16.2)	91 (28.9)	81 (25.7)	41 (13)	51 (16.2)
My child gets full up easily	21 (6.7)	39 (12.4)	96 (30.5)	84 (26.7)	75 (23.8)
My child gets full before his/her meal finished	26 (8.3)	52 (16.5)	97 (30.8)	75 (23.8)	65 (20.6)
My child cannot eat a meal if s/he has had a snack just before	30 (9.5)	50 (15.9)	83 (26.3)	68 (21.6)	84 (26.7)
Slowness in eating					
My child takes more than 30 minutes to finish a meal	76 (24.1)	92 (29.2)	67 (21.3)	43 (13.7)	37 (11.7)
My child eats slowly	40 (12.7)	66 (21)	78 (24.8)	63 (20)	68 (21.6)
My child eats more and more slowly during the course of a meal	63 (20)	79 (25.1)	66 (21)	53 (16.8)	54 (17.1)
Emotional undereating					
My child eats less when s/he is tired	37 (11.7)	50 (15.9)	100 (31.7)	68 (21.6)	60 (19)
My child eats less when s/he is angry	56 (17.8)	50 (15.9)	90 (28.6)	58 (18.4)	61 (19.4)
My child eats less when s/he is upset	48 (15.2)	53 (16.8)	93 (29.5)	56 (17.8)	65 (20.6)
My child eats more when s/he is happy	61 (19.4)	61 (19.4)	91 (28.9)	46 (14.6)	56 (17.8)
Fussiness					
My child enjoys tasting new foods	74 (23.5)	85 (27)	97 (30.8)	26 (8.3)	33 (10.5)
My child enjoys a wide vairety of foods	75 (23.8)	90 (28.6)	76 (24.1)	39 (12.4)	35 (11.1)
My child is interested in tasting food s/he hasn't tasted before	74 (23.5)	96 (30.5)	90 (28.6)	26 (8.3)	29 (9.2)

When CFQ and CEBQ subscales were compared based on the BMI SDSs of the children, 'concern about child weight' was lower among the parents of children with a BMI SDS of +2 compared to the other groups (p=0.006). Greater 'food responsiveness' was detected in children with a BMI SDS above +2 compared to those with a BMI SDS below -2 (p=0.040). 'Enjoyment of food' was significantly higher among children with a BMI SDS above +2 compared to the other groups (p=0.001).

In reliability analyses of the scales, the Cronbach's alpha values were above 0.7 for both (0.724 for CFQ, 0.744 for CEBQ).

Table IV: Correlation analysis results of CEBQ subgroups' relations with each other.

	Emotional overeating	Enjoyment of food	Desire to drink	Satiety reponsiveness	Slowness in eating	Emotional undereating	Food fussiness
Food responsiveness							
r	0.329	0.485	0.178	-0.270	-0.217	-0.005	0.232
p	0.001	0.001	0.001	0.001	0.001	0.927	<0.001
n	315	315	315	315	315	315	315
Emotional overeating							
r		0.246	0.065	-0.124	-0.066	0.000	0.188
p		0.001	0.252	0.028	0.245	0.994	0.001
n		315	315	315	315	315	315
Enjoyment of food							
r			0.034	-0.398	-0.377	-0.104	0.409
p			0.545	0.001	0.001	0.065	0.001
n			315	315	315	315	315
Desire to drink							
r				0.251	0.019	0.163	-0.045
p				0.001	0.734	0.004	0.425
n				315	315	315	315
Satiety reponsiveness							
r					0.383	0.330	-0.368
p					0.001	0.001	0.001
n					315	315	315
Slowness in eating							
r						0.291	-0.138
p						0.001	0.014
n						315	315
Emotional undereating							
r							-0.107
p							0.057
n							315

***r:** Correlation coefficient, **p:** Value, **n:** Number*

DISCUSSIONS

In this study investigating the relationship between parents' child feeding practices and the eating behaviors of their preschool children, it was found that as parents' perceived responsibility for feeding increased, the children's food responsiveness tended to decrease; greater parent concern about child weight was associated with higher food responsiveness and enjoyment of food and lower satiety responsiveness, slowness in eating, and emotional undereating in the children; with more parental restriction, the children's food responsiveness, satiety responsiveness, and emotional undereating behaviors tended to increase; and more pressure to eat from parents was associated with a tendency for higher satiety responsiveness, slowness in eating, and emotional undereating but less enjoyment of food in the children.

Feeding and growth of the child and the expectations of mothers often do not coincide. It is observed that most of the children whose mothers think that they have no appetite or even do not eat at all grow in accordance with their age. We determined that most of the children who were considered underweight by their parents were within normal range for their age too. Also, it was found that the parents of children with obesity had less concern about their child weight, while these children exhibited more food responsiveness and enjoyment of food. It has been reported in several studies that between 32% and 90% of parents misjudge their child's weight (15,16).

The CFQ responses of the parents who participated in our study indicated that more than 70% of parents monitored what their children eat. In a study from the United States, it was observed that in the home environment, parents provided food without asking their children what they want most of the time, and that 85% of parents struggled to get their children to eat more (17).

The use of pressuring feeding practices may provoke or worsen child fussiness, but these practices could equally be a parent's response to child fussy eating. Parental pressure to eat has been shown to increase fussy eating in children at older ages (18). In a study from Sweden, parental restrictive behavior was found to be associated with their concern about their children's weight rather than their children's food preferences (19). In the present study, we found that parents with high perceived responsibility regarding child feeding also had higher concern about child weight and exerted more pressure to eat, and that parents with high concern about child weight and those who exerted high pressure to eat showed more restrictive behavior. Similarly, in a study from Spain conducted to evaluate the validity and reliability of the CFQ, concern about child weight was positively correlated with restriction and pressure to eat (20).

Tablo V: Correlation analysis results regarding the relationship between CFQ and CEBQ subgroups

	Perceived responsibility	Monitoring	Concern about child weight	Restriction	Preassure to eat
Food responsiveness					
r	-0.121	0.053	0.138	0.194	0.029
p	0.032	0.350	0.014	0.001	0.604
n	315	315	315	315	315
Emotional overeating					
r	0.043	-0.004	0.046	0.048	-0.030
p	0.442	0.949	0.411	0.399	0.593
n	315	315	315	315	315
Enjoyment of food					
r	-0.015	0.041	0.210	0.027	-0.191
p	0.788	0.472	0.001	0.637	0.001
n	315	315	315	315	315
Desire to drink					
r	-0.030	-0.029	-0.025	0.071	0.072
p	0.591	0.602	0.665	0.209	0.200
n	315	315	315	315	315
Satiety responsiveness					
r	0.037	-0.006	-0.140	0.130	0.172
p	0.511	0.916	0.013	0.021	0.002
n	315	315	315	315	315
Slowness in eating					
r	0.036	-0.002	-0.129	0.042	0.204
p	0.523	0.973	0.022	0.453	<0.001
n	315	315	315	315	315
Emotional undereating					
r	-0.030	0.075	-0.160	0.165	0.175
p	0.593	0.183	0.004	0.003	0.002
n	315	315	315	315	315
Food fussiness					
r	-0.079	0.003	0.029	-0.039	-0.027
p	0.162	0.959	0.609	0.495	0.637
n	315	315	315	315	315

r: *Correlation coefficient,* ***p:*** *Value,* ***n:*** *Number*

Food responsiveness scale assess children's general appetite for food or desire to eat. Food fussiness scale assess the frequent rejection of both familiar and unfamiliar foods. These eating scales are associated with high energy intake and low nutritional quality. These conditions may be related to obesity. 'Food responsiveness' was positively correlated with emotional overeating, enjoyment of food, and food fussiness, and negatively correlated with satiety responsiveness and slowness in eating were determined. There was positive correlation between satiety responsiveness, slowness in eating, desire to drink, and emotional undereating, behaviors that may be related to low appetite, while these behaviors were negatively correlated with food responsiveness, emotional overeating, and enjoyment of food, behaviors that may be related to strong appetite. In a study from Iceland using confirmatory factor analyses to compare the 4 different models of the CEBQ used in various parts of the world, the strongest correlations detected were the positive correlations between satiety responsiveness and enjoyment of food and between food responsiveness and emotional overeating, as well as the negative correlation between food fussiness and enjoyment of food (21).

Parents are often worried when their child eats very little, does not eat healthy foods like fruits and vegetables, or refuses a meal completely. Often parents find themselves using pressure, force or coercion to try and get their child to finish their meal. This stuation can be the opposite effect to what was intended. The act of being pressured into eating can lead to the development of negative associations with the food, and ultimately dislike and avoidance. İn contrast ıt can also stop children from recognising and responding appropriately to internal signals of hunger and fullness, which can make them more likely to overeat in later life. In our study parental 'pressure to eat' attitudes were weakly negatively correlated with the children's 'enjoyment of food' and weakly positively correlated with the children's 'satiety responsiveness', 'slowness in eating', and 'emotional undereating' behaviors. It has been found that satiety responsiveness, slowness in eating, and emotional undereating are more common and enjoyment of food is less common among the children of parents who pressure them to eat (22,23). In another study, high pressure to eat from mothers was associated with lower enjoyment of food and food responsiveness in children. In the same study, children whose

parents pressured them to eat showed a higher prevalence of eating disorders and were pickier eaters (24).

In a study from the Netherlands that included 4987 children, emotional undereating, satiety responsiveness, food fussiness, and pressure to eat were found to be associated with lower BMI values, while enjoyment of food, food responsiveness, emotional overeating, and restriction were associated with higher BMI values (23). Similarly, in a study from the United Kingdom involving 482 parents with 3-year-old children, satiety responsiveness, slowness in eating, food fussiness, and emotional undereating were associated with lower BMI values, while emotional overeating, desire to drink, food responsiveness, and enjoyment of food were associated with higher BMI values (25). In the present study, it was found that children with obesity exhibited more food responsiveness and enjoyment of food.

We observed that pressuring children to eat was less common among parents with low income compared to parents with high income. In contrast, another study reported that restriction and pressure to eat were less common among parents of higher socioeconomic status (26).

The strengths of our study are as follows; large sample size and in terms of evaluating the data of two feeding questionnaires. This study has certain limitations. Firstly, this was a cross-sectional, situation analysis study. Due to the high number of questions in the questionnaire forms used in our study, although a possible decrease in the respondents' interest level was observed, the forms completed.

Parents' children's attitudes towards eating may affect their children's eating behaviors. As the parental restriction increases, the children's food responsiveness, satiety responsiveness, and emotional undereating behaviors tended to increase. Higher the pressure to eat from parents was associated with a tendency for higher 'satiety responsiveness', 'slowness in eating', and 'emotional undereating' but less enjoyment of food in the children. The data revealing the culturally parents children's eating attitude and behaviors could promote potential early intervention approaches for healthier intake patterns during infancy and very early childhood.

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