



Nutritional style of parents and examination of the effective factors

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Abstract

Aim: This study was performed to determine the nutritional style in parents who had children aged between 3 and 6 years and the effective factors.

Material and Methods: The sample number of this descriptive study was calculated with the sample formula for unknown population and the parents of 300 children aged between 3 and 6 years who attended a nursery school in the province of İzmir constituted the sample. The sample was reached in two periods. "The Sociodemographic Data Form" and "the Parent Nutritional Style Scale" were used as data collection tools. Written approval was obtained from the scientific ethics committee of the Ege University, Faculty of Nursing (B.30.2.EGE.0.82.00.00/29-288). The heights and weights of the children were measured by the investigators with certain measurement tools. The body mass index standard deviation score (BMI SDS) was calculated for each child. The children whose body mass index standard deviations were between +2 and -2 standard deviation were considered to have normal weight. The Auxology program was used to obtain these data. The body mass indexes of the parents were calculated according to the height and weight values stated by themselves. In analyses of the data, student's t-test and Mann-Whitney U test were used for comparison of two groups. Variance analysis and Kruskal-Wallis variance were used for multiple comparisons; Bonferroni corrected Mann-Whitney U test and Shefee test were used for advanced analysis.

Results: It was found that the variables including the age, education level, number of children, working status of the mothers and the perception of the child's weight by the mother affected the nutritional style of the parents. The mean "emotional" and "instrumental" nutrition subdimension scores of the mothers who were young, who had an education of primary school and who were housewives, the mean "encouraging nutrition" subdimension scores of the mothers who had small for gestational age babies and the mean "emotional" nutrition subdimension scores of the mothers who perceived their babies' weights as lower than normal were found to be higher ($p<0.05$). No significant difference was found in the nutritional style in relation with the child's BMI SDS and the mother's own BMI.

Conclusions: The nutritional styles of parents are affected by some sociodemographic and anthropometric properties, but the relation with the child's weight should be demonstrated by observational studies. (Türk Ped Arş 2014; 49: 224-30)

Key words: Parental nutritional style, pre-school period, obesity

Introduction

Nutrition is the most important environmental factor for maintaining health. Nutritional habits which start to be established in the childhood also affect the adulthood. Parents are the most important determinants in the establishment of nutritional habits in the childhood as the people who provide nutrition and who are role models (1). Especially in the preschool period, parents are responsible of choosing foods for their children and they try to develop adequate and balanced nutritional behavior by using different feeding methods (2). Parental feeding style is affected by many factors including the perception of the child's weight by the parents (3), the child's weight (2-6), gender (7), the weight of the parents (8, 9) and the economical and education status of the parents (2, 10).

In a review, a significant relation was found between parental feeding methods and food consumption and body weight status of children in 19 of 22 studies (11). In many studies conducted in USA and Europe, the relation of children's body weight states and eating behaviors with the parental feeding behaviors and the variables affecting the parental feeding style were examined (12-14). There are limited number of studies examining parental feeding style in our country (3, 15, 16). In this study,

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it was aimed to determine the feeding style in parents who had children aged between 3 and 6 years and the relation of maternal feeding style with some sociodemographic and antropometric properties.

Material and Methods

Sample

The parents of 300 children in the 2-6 age group who attended a nursery school in the province of İzmir constituted the sample of this descriptive study.

Data collection tools

The Sociodemographic and Antropometric Data Collection Form and the Parental Feeding Style Scale were used for collecting data.

The Sociodemographic and Antropometric Data Collection Form

This form includes questions related with the gender, age, education status, occupation, height, weight, the place lived for the longest time, economical status, number of children of the parents, education status and occupation of the parent and age and gender of the child. The data including BMI of the parents and the child's height, weight, BMI and percentiles included in this part were filled in by the investigators after the necessary measurements and calculations were made.

The Parental Feeding Style Scale

The Parental Feeding Style Scale was developed by Wardle et al. (9) to determine four types of feeding styles (2002): emotional, controlled, instrumental and encouraging feeding. Feeding the child in case of an emotional stress is called emotional feeding, using food as a reward is called instrumental feeding, urging the child to eat is called encouraging feeding and regulation of the quality and quantity of the child's foods by the parents is called controlled feeding. The Turkish adaptation of the scale was performed by Özçetin et al. (16). The 5-item Likert type scale (always-never) is composed of 27 items and five subdimensions (mainly 4 subdimensions). The internal consistency coefficients of the scale by subdimensions are as follows: emotional feeding 0.83, instrumental feeding 0.64, encouraging feeding 0.74, strictly controlled feeding 0.69, controlled feeding with tolerance 0.54. The 5, 17, 20 and 26th items constituted the strictly controlled feeding subdimension. The 1, 11, 14, 16 and 23rd questions of the scale constitute the controlled feeding with tolerance subdimension. The 1, 11, 16 and 23rd items of the scale can be reversed. The emotional feeding subdimension is composed of the sum of the 2, 13, 15, 21 and 25th items. The encouraging feeding subdimension is composed of the sum of the 3, 4, 6, 8, 10, 12, 19 and 27th items. The instrumental feeding subdimension is composed of the 7, 9, 18 and 22nd items.

Data collection

Written approval was obtained from the Ege University Faculty of Nursing Scientific Ethics Committee

(B.30.2.EGE.0.82.00.00/29-288) and from the institution where the study would be conducted. Verbal consent was obtained from the mothers from whom the data would be collected. The data were collected throughout two periods. Since the population was not known, the size of the sample was calculated to be 288 using the Formula of $n = \frac{t^2 pq}{d^2}$ ($\alpha = 0.05$; $p = 0.25$ p: frequency of occurrence of the event (obesity); $d = 0.05$) and the sample was composed of the parents of 300 children. The data collection tools were given to the teachers working in the nursery school and were transported to the mothers by the teachers. The questionnaire forms filled in by the mothers were transported to the investigators again by the teachers. The heights and weights of the children were measured by the investigators using a standard scale (vocare-max 200 kg, 450 lbs, 32 sts, $d = 0.1$ kg/0.2 lbs) and a stadiometer. The BMI SDS value was calculated for each child. Auxology program (reference values of Neyzi et al. for the Turkish children) was used for obtaining these data. The children with a BMI between +2 standard deviation and -2 standard deviation were considered to have normal weight, the children with a BMI above +2 SD were considered obese and the children with a BMI below -2 SD were considered to have low weight. The height and weight values of the parents were evaluated according to their own statements. The BMI values of the parents were calculated based on the World Health Organization obesity classification. The body mass index was obtained by dividing the body weight (kg) by the square of the height as meters ($BMI = kg/m^2$). According to the BMI classification of the World Health Organization the individuals with a BMI <18.5 were considered lean, the individuals with a BMI between 18.5 and 24.9 were considered normal, the individuals with a BMI between 25 and 29.9 were considered overweight and the individuals with a BMI of ≥ 30 were considered obese (17).

Statistical analysis

The data were evaluated using Statistical Package for the Social Sciences versiyon 16, (SPSS, In., Chicago, IL, USA) package program. In assessment of the variables which showed a normal distribution, Student's t test was used for comparison of two groups and variance analysis was used for comparison of multiple groups. Scheffe test was used in further analyses. When the variables did not show a normal distribution, Mann-Whitney U test was used for comparison of two groups and Kruskal-Wallis variance analysis was used for comparison of multiple groups. When a significant difference was found in the Kruskal Wallis variance analysis in comparison of multiple groups, Bonferroni-corrected Mann-Whitney U test was used to determine which groups this difference arised from. The results of the Mann-Whitney U test were evaluated by performing Bonferroni correction at a alpha significance level of 0,016. Correlation analysis was performed to examine the relation between the parental age and feeding style.

Results

Sociodemographic and antropometric properties

51.3% of the children included in the study were male and 32.7% were female. The mean age was 4.71 ± 1 years. The mean age of the mothers was 33.72 ± 4.6 years (the lowest-the highest: 24-52). The mean age of the fathers was 47.14 ± 5.3 years (the lowest-the highest: 28-58). 51.7% of the mothers were university graduates and 36% were housewives. 83.3% of the families were nuclear families and 65% had a moderate income level. 53.3% of the parents had a single child and 40.7% had two children.

When the children were evaluated by birth weight, it was found that 83.7% of the children were born with a normal birth weight (2500-4000 g), 8.7% were born with a low birth weight (<2 500 g) and 7.7% were born with a high birth weight (>4 000 g). According to the BMI standard deviation score, 79.7% of the children had a normal body weight, 12.3% were obese and 8% had a low body weight. According to body mass index, it was found that 65% of the mothers had a normal weight, 3.3% had a low weight, 23.7% were overweight and 8% were obese. 35% of the fathers had a normal body weight, 48% were overweight and 17% were obese.

Parental feeding styles

Comparison of the feeding styles of the mothers according to some sociodemographic properties is shown in Table 1. No statistically significant difference was found between the feeding styles of the mothers according to the gender and age of the child and the family type ($p > 0.05$).

No statistically significant difference was found between the mean scores of the subdimensions of strictly controlled feeding ($p = 0.096$), controlled feeding with tolerance ($p = 0.698$) and encouraging feeding ($p = 0.054$). A substantially significant difference was found between the subdimensions of emotional feeding ($p = 0.000$) and instrumental feeding ($p = 0.000$). When the Scheffe test was performed as an advanced analysis to find which education level the difference arised from, it was found that the difference arised from the mothers who were elementary school graduates and the mean scores of emotional and instrumental feeding subdimensions in the mothers who were elementary school graduates were statistically significantly higher compared to the mothers who were graduates of high school and university.

When the feeding styles of the mothers were examined according to the number of children, it was found that there was no significant difference between the mean scors of the

Table 1. Comparison of parental feeding style scores according to sociodemographic variables

		Strict control				Control with tolerance			Emotional feeding			Encouraging feeding			Instrumental feeding		
Sociodemographic data	n	m	SD	SV	m	SD	SV	m	SD	SV	m	SD	SV	m	SD	SV	
Gender of child																	
Female	146	14.9	3.1	t: -1.686	17.5	3.5	t: 0.901	10.5	4.4	t: -1.096	31.3	5.9	t: -1.127	9	3.6	t: 1.153	
Male	154	15.5	3	p: 0.093	17.2	3.2	p: 0.36	11.0	4.3	p: 0.274	32	4.9	p: 0.261	8.5	3	p: 0.250	
Maternal education																	
Primary school	50	14.3	3.8	F: 2.359	17.5	3.4	F: 0.360	13.3	5	F: 12.262	30	6.3	F: 2.954	10.3	3.6	F: 8.579	
High school	95	15.4	3.3	p: 0.096	17.5	3.7	p: 0.698	10.9	4.2	p: 0.000*	31.9	4.9	p: 0.054	8.9	3.4	p: 0.000*	
Univeristy	155	15.3	2.5		17.2	3.1		9.9	3.9		32.1	5.3		8.1	3		
Number of children																	
One	160	15.4	3	t: 1.526	16.9	3.4	t: -2.152	10.5	4	t: -1.349	32.2	5.5	t: 1.896	8.5	3.5	t: -1.004	
More than one	140	14.9	3.1	p: 0.128	17.8	3.3	p: 0.032*	11.1	4.7	p: 0.178	31	5.2	p: 0.059	8.9	3.1	p: 0.316	
Maternal working status																	
No	108	14.9	3.3	t: -0.961	17.7	3.5	t: 1.345	12.1	4.8	t: 4.081	30.9	5.3	t: -1.773	9.3	3.57	t: 2.189	
Yes	192	15.3	2.9	p: 0.338	17.1	3.3	p: 0.180	10	3.9	p: 0.000*	32.1	5.4	p: 0.077	8.4	3.2	p: 0.029*	
Family type																	
Nuclear	250	149.29		X ² : 1.302	152.19		X ² : 0.771	151.63		X ² : 0.827	153.20		X ² : 3.185	149.44		X ² : 0.228	
Extended	25	144.30		SD: 2	136.62		SD: 2	154.12		SD: 2	153.06		SD: 2	155.56		SD: 2	
Broken	25	168.78		p: 0.522	147.50		P: 0.680	135.62		P: 661	120.92		P: 0.203	156.08		p: 0.892	
<div>(KW) (KW) (KW) (KW) (KW)</div>																	

m: mean; SD: standard deviation; SV: statistical value; KW: Kruskal-Wallis

subdimension of controlled feeding ($p=0.128$), emotional feeding ($p=0.178$), instrumental feeding ($p=0.316$) and encouraging feeding ($p=0.059$). The mean scores for the subdimension of controlled feeding with tolerance were found to be statistically significantly higher in the mothers who had more than one child compared to the mothers who had a single child ($p=0.32$).

When the mothers were evaluated according to the working status, it was found that the mean scores for the subdimensions of emotional feeding ($p=0.000$) and instrumental feeding ($p=0.029$) were higher in the mothers who were housewives and this difference was statistically significant. There was no difference in the mean scores for the subdimensions of encouraging feeding ($p=0.077$), strictly controlled feeding ($p=0.338$) and controlled feeding with tolerance ($p=0.180$) by working status.

Comparison of the feeding styles of the mothers according to some antropometric properties is shown in Table 2. No statistically significant difference was found between the child's BMI SDS score, the mother's BMI and feeding style.

No significant difference was found between the mean scores of the subdimensions of strictly controlled feeding ($p=0.503$), controlled feeding with tolerance ($p=0.390$), emotional feeding ($p=0.925$) and instrumental feeding ($p=0.467$) by the child's birth weight. A statistically significant difference was found between the mean scores of the subdimension of encouraging feeding by the child's birth weight ($p=0.033$). According to the Bonferroni-corrected Mann-Whitney U test performed to determine the origin of the difference, no statistically significant difference was found between the mean scores of the mothers whose babies were born with a normal birth weight and with a high birth weight ($p=0.243$) and between the mothers whose babies were born with a normal birth weight and a low birth weight ($p=0.025$). A statistically significant difference was found between the mean scores of the mothers whose babies were born with a high birth weight and a low birth weight ($p=0.015$). It was found that the mean score for the subdimension of encouraging feeding was higher in the mothers whose babies were born with a low birth weight compared to the mothers whose babies were born with a high birth weight and the difference was significant.

Table 2. Comparison of parental feeding style scores according to antropometric measurements

		Strict control		Control with tolerance		Emotional feeding		Encouraging feeding		Instrumental feeding	
		m SD	SV	m SD	SV	m SD	SV	m SD	SV	m SD	SV
Birth weight											
Normal (2 500-4 000 g)	251	15.32±3.00	p: 0.503	17.28±3.44	p: 0.390	10.82±4.35	p: 0.925	31.64±5.56	p: 0.033*	8.77±3.41	p: 0.467
Large (>4 000 g)	23	14.21±3.96	SD: 2	18.13±3.34	SD: 2	10.82±5.33	SD: 2	30.13	SD: 2	8.39±3.34	SD: 2
Low (<2 500 g)	26	15.11	X ² : 1.376	17.65±2.97	X ² : 1.883	10.73±4.10	X ² : 0.155	5.53	X ² : 6.822	9.03±2.90	X ² : 1.521
			(KW)		(KW)		(KW)	33.80±3.34	(KW)	9	(KW)
Paternal BMI											
Normal (BMI 18.5-24.9)	105	15.38±3.13	p: 0.779	17.42±3.33	p: 0.986	11.16±4.62	p: 0.228	32.69±6.25	p: 0.015*	9.15±3.53	p: 0.151
Overweight (BMI 25-29.9)	144	15.03±3.11	SD: 2	17.28±3.57	SD: 2	10.94±4.25	SD: 2	31.61±4.66	SD: 2	8.77±3.22	SD: 2
Obese (BMI >30)	51	15.41±3.00	X ² : 0.499	17.54±3.05	X ² : 0.027	9.76±4.25	X ² : 2.956	29.98±5.37	X ² : 8.448	7.98±3.32	X ² : 3.785
			(KW)		(KW)		(KW)		(KW)		(KW)
Maternal BMI											
Normal (BMI 18.5-24.9)	195	15.18±3.04	p: 0.852	17.35±3.53	p: 0.537	10.77±4.27	p: 0.493	31.98±5.59	p: 0.777	8.93±3.18	p: 0.219
Lean (BMI <18.5)	10	14.50±3.30	SD: 3	17.30±3.02	SD: 3	8.90±3.84	SD: 3	30.70±5.27	SD: 3	6.90±2.42	SD: 3
Overweight (BMI 25-29.9)	71	15.49	X ² : 0.790	17.76±2.93	X ² : 0.2172	11.05±4.37	X ² : 2.402	31.26±4.98	X ² : 1.101	8.71±4.01	X ² : 4.421
		2.91	(KW)		(KW)		(KW)		(KW)		(KW)
Obese (BMI >30)	24	15.00±3.98		16.45±3.69		11.29±5.60		31.20±5.78		8.37±2.88	
Child, BMI SDS											
Normal	239	15.26±3.14	p: 0.852	17.18±3.42	p: 0.537	10.85±4.46	p: 0.493	31.46±5.77	p: 0.777	8.74±3.36	p: 0.219
Lean	24	14.75±3.41	SD: 3	14.45±3.58	SD: 3	9.95±3.48	SD: 3	32.58±3.34	SD: 3	8.41±2.78	SD: 3
Obese	37	15.24±2.64	X ² : 0.790	18.59±2.90	X ² : 2.172	11.13±4.52	X ² : 2.402	32.75±4.14	X ² : 1.101	9.13±3.72	X ² : 4.421
			(KW)		(KW)		(KW)		(KW)		(KW)

m: mean; SD: standard deviation; BMI: body mass index; SDS: standard deviation score; KW: Kruskal-Wallis; SV: statistical value

Table 3. Comparison of parental feeding style scores according to perception of the mother of her child's weight

	Strict control			Control with tolerance		Emotional feeding		Encouraging feeding		Instrumental feeding	
	m	SD	SV	m	SD	m	SD	m	SD	m	SD
Perception of mother of her child's weight											
Lower than normal	58	14.82±2.90	p: 0.368	16.50±3.52	p: 0.005 *	12.86±4.25	p: 0.000*	31.62±5.47	p: 0.362	9.41±3.30	p: 0.339
Normal	206	15.28±3.04	SD: 2	17.34±3.28	SD: 2	10.36±4.39	SD: 2	31.63±5.43	SD: 2	8.60±3.35	SD: 2
Higher than normal	36	15.50±3.71	X ² : 1.999	18.97±3.37	X ² :10.423	10.11±3.71	X ² : 17.491	32.30±5.60	X ² : 2.031	8.69±3.47	X ² : 2.164
			(KW)		(KW)		(KW)		(KW)		(KW)
m: mean; SD: standard deviation; KW: Kruskal-Wallis; SV: statistical value											

m: mean; SD: standard deviation; KW: Kruskal-Wallis; SV: statistical value

No significant difference was found between the BMI values of the fathers and the mean scores of the mothers for the subdimensions of strictly controlled feeding ($p=0.779$), controlled feeding with tolerance ($p=0.986$), emotional feeding ($p=0.228$), instrumental feeding ($p=0.151$). A statistically significant difference was found between the BMI values of the fathers and the mean scores for the subdimension of encouraging feeding ($p=0.015$). In the advanced analysis performed, it was found that the mean score of the mothers who had an obese partner was lower for the subdimension of encouraging feeding compared to the mothers whose partners had a normal body weight and the difference was significant ($p<0.005$).

No significant difference was found between the mean scores of the mothers for the subdimensions of strictly controlled feeding ($p=0.368$), encouraging feeding ($p=0.362$) and instrumental feeding ($p=0.339$) by the mothers' perception of the child's weight (Table 3). A statistically significant difference was found between the mean scores of the mothers for the subdimension of controlled feeding with tolerance ($p=0.005$) according to the mother's perception of the child's body weight. In the advanced analysis, a statistically significant difference was found between the mean scores of the mothers who perceived the child's weight lower than normal and higher than normal ($p=0.002$) and between the mothers who perceived the child's body weight normal and higher than normal ($p=0.008$). A substantially significant difference was found in the mean scores for the subdimension of emotional feeding ($p=0.000$) according to the mothers' perception of the child's body weight. In advanced analysis, a statistically significant difference was found between the mean scores of the mothers who perceived the child's weight lower than normal and normal ($p=0.000$) and between the mothers who perceived the child's weight lower than normal and higher than normal ($p=0.002$).

A negative significant relation was found between the maternal age and the mean scores for the subdimensions of emotional feeding ($r=-0.159$ $p=0.006$), encouraging feeding ($r=-$

Table 4. Relation between parental age and the mean parental feeding style scores

	Maternal age		Paternal age	
	r	p	r	p
Strictly controlled feeding	-0.071	0.223	-0.057	0.321
Controlled feeding with tolerance	0.033	0.566	0.021	0.713
Emotional feeding	-0.159**	0.006	-0.117*	0.043
Encouraging feeding	-0.162**	0.005	-0.087	0.133
Instrumental feeding	-0.248**	0.000	-0.192**	0.001

* $p<0$, ** $p<0.01$

0.162 $p=0.005$) and instrumental feeding ($r=-0.248$ $p=0.000$). A negative significant relation was found between the paternal age and the mean scores for the subdimensions of emotional feeding ($r=-0.117$ $p=0.04$) and instrumental feeding ($r=-0.192$ $p=0.001$) (Table 4).

Discussion

In this study which was conducted to determine the feeding styles of the mothers and the factors affecting these styles, it was found that variables including the age, education level, number of children and working status of the mothers affected feeding styles. In the study, the mean scores for the subdimensions of emotional feeding and instrumental feeding were higher in the mothers who were young, elementary school graduates and housewives compared to the other mothers. Emotional feeding can be defined as giving food to the child when the child is sad, unhappy or restless. Instrumental feeding means giving food as a reward if the child consumes a food which he/she dislikes or if the child performs a behavior in accordance with the parent's desires (9). It is known that both emotional and instrumental feeding styles are effective in the child's nutritional preferences and development of obesity (9, 12, 14). In the study of Saxton et al. (18), it was found that the level of controlled feeding increased and the level of emotional feeding decreased as the

education level of the mother increased. The results of the study supported the literature and it was emphasized that the rates of obesity increased as the level of education of the mothers decreased. This suggests that mothers with a low education level may have low levels of awareness about healthy nutrition and obesity. It has been emphasized that mothers with a high education level consider the child's weight a risk factor in terms of health and have the necessary knowledge about healthy nutrition for a healthy weight gain (18). Studies have shown that the controlled feeding style is used more frequently as the socioeconomical level increases (19). In our study, it was observed that the mothers who were young and had a low education level gave food to their children for coping with emotional stress or used food as a reward. This may be related with the low level of awareness of the mothers about obesity.

In this study, it was found that there was no difference in the parental feeding styles according to the gender of the child. In the study of Birch and Fisher (20), it was found that American parents with a high socioeconomical level fed their daughters in a more controlled way compared to their sons. The study conducted by Montgomery et al. (21) and İskoç, Kröller et al. (2) with German mothers supported our study. The differences between the studies may be related with social, cultural and ethnical properties. In some studies, it was found that the parental feeding style did not show difference according to the number of children (2, 9). In this study, it was found that the mothers with a single child had lower mean scores for the subdimension of controlled feeding with tolerance compared to the mothers who had more than one child. This finding is thought to be related with the increased experience of the mother.

No statistically significant difference was found between the child's BMI SD score and the mothers own BMI and the feeding style. It was found that the mean score for the subdimension of encouraging feeding was higher in the mothers whose babies were born with a low birth weight compared to the mothers whose babies were born with a normal or high birth weight. There are studies showing a relation between encouraging feeding style and low body weight of the child (9,22) and overeating behavior (12, 13). In the literature, it has been reported that the body weight status of the parents affects the feeding styles. Wardle et al. (9) found that obese mothers used the controlled feeding style less frequently compared to the mothers with a normal body weight. Powers et al. (5) reported that obese mothers used the restrictive and controlled feeding style more frequently compared to non-obese mothers. In our study, it was found that the father's BMI rather than the mother's was effective on the feeding style of the mothers and the mothers whose partners were obese used the encouraging feeding style less frequently. This may be related with the fact that overweight and obese mothers perceive their own weight as normal.

In contrast to our study, there are studies which show a relation between the child's body weight status and the parental feeding style. Some of the studies suggest that the frequency of encouraging feeding style decreases (5, 6, 9) and the frequencies of anxious (8) and controlled (2) feeding styles increase as the child's weight increases. The fact that no such difference was found in our study may be related with low numbers of lean and obese children and the mothers's perception of their children's weights as normal.

In our study, the BMI SDS score of the child was not found to be a variable affecting the parental feeding style, but a significant difference was found in the subdimensions of emotional feeding and controlled feeding with tolerance according to the mothers' perception of their children's body weights. It was found that the mothers who perceived their children's weights lower than normal preferred emotional feeding with a higher rate and were more tolerant against their children. In the study of Yılmaz et al. (3) conducted with Turkish mothers, it was found that 42% of the mothers perceived their children's weights differently compared to the actual weight and the scores for the subdimensions of encouraging feeding and emotional feeding were lower in the mothers who perceived their children's weights higher than normal. In many populations including the Turkish population, having a "robust" child is accepted to be an indication of good nutrition and good parenting. Therefore, mothers feel happy as their children eat and believe that a fat child is healthier. The fact that a mother who perceives her child's weight lower than normal uses the emotional feeding style may be related with this status.

Conclusively, it was found that some sociodemographic and antropometric properties affected the maternal feeding styles in this study, but this study has some limitations: first of all, data related with the feeding styles stated by the mothers themselves were obtained, though a reliable and valid measurement tool was used in the study. Secondly, the study was conducted with a small group which had an almost homogeneous socioeconomical level. Thirdly, the heights and weights of the parents were not measured by the investigators using a certain measurement tool because of difficulty of accesability and were evaluated according to their own statements. Fourthly, some variables affecting the parental feeding styles were determined in this cross-sectional descriptive study, but no adequate information related with a cause-effect relation was given. Therefore, longitudinal observational studies with large samples should be conducted to determine the relation between parental feeding styles and the child's body weight. In the light of the results obtained in this study, it is recommended that education about the relation between instrumental, emotional and encouraging feeding styles and childhood obesity, harms of obesity and adequate and balanced nutrition should be given to parents and further studies should be conducted in this area.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Ege University Faculty of Nursing Scientific Ethics Committee.

Informed Consent: Verbal informed consent was obtained from parents who participated in this study.

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