

RESEARCH ARTICLE

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The Impact of Parental Attitudes on Academic Performance and Obesity of Elementary School Students

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ABSTRACT

This study aims to examine the impact of parental attitudes on school achievement and obesity among 3rd and 4th-grade primary school students. The sample consisted of 541 students—312 girls and 229 boys—aged between 8 and 12 years, enrolled in 3rd and 4th grades at primary schools in the Selçuklu, Karatay, and Meram districts of Konya. To assess the students' obesity status, height and weight measurements were taken, and the body mass index (BMI) was calculated. Parental attitudes were analyzed across four sub-dimensions: democratic, protective, authoritarian, and permissive. The data were analyzed by Chi-square, Independent sample T-test, One-way Anova, Person Correlation, and Multiple regression analysis. As a result of the study, it was observed that overprotective parental attitudes decreased as parental education increased. In addition, it is seen that the risk of obesity in children whose fathers are obese increases significantly. As the father's weight increases, the likelihood of the child being obese also increases. As the democratic attitude scores of the parents increase, their perceptions of their children's success status increase, and as the authoritarian and permissive attitude scores increase, their perceptions of their children's success status decrease. A significant relationship was found between authoritarian attitude and obesity, and authoritarian attitude was found to be higher in families of obese children. As a result of regression analysis, it was found that an authoritarian attitude increased obesity and decreased school success, while a democratic attitude increased school success.

Keywords: Parental attitudes, school achievement, obesity, elemantary school students

Introduction

The family is the primary environment of person's life schemas are formed. The attitudes of the family and the communication patterns they use significantly influence the child's feelings, thoughts, and behaviors. As a result, the foundations of personality are established and developed under the combined influence of heredity and the environment. Numerous studies indicate that family attitudes significantly impact various factors in both childhood and adulthood. In particular, during childhood, these attitudes influence a range of issues, including self-esteem, peer bullying, obesity, and academic success. Every interaction within the family plays a crucial role in shaping a child's life. In this context, the family and the school are vital elements in a child's development. This study explores how family attitudes influence children's academic performance and childhood obesity.

In the family environment, children learn culture while forming habitual behavioral patterns within environmental factors (Özgüven, 2001). Behaviorists and social learning theorists explain personality as a result of consistent patterns of behavior, conditioning, and expectations. According to these approaches, all behavior is learned. While behaviorist theorists state that rewarded and punished behaviors are reinforced or extinguished, according to social learning

theorists, we learn by following models (Burger, 2006: 27-28).

Based on these theories, the importance of parents' behaviors and attitudes towards their children in explaining the individual's personality is seen. Self-esteem is the cornerstone of a strong and durable personality structure (Saygılı, 2005). The development of a child's self-esteem is made possible by seeing himself/herself as a valuable person, the importance given to his thoughts, and the support he receives from his parents (Yavuzer et al., 2003). A person's

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environment, especially parents, has a great influence on the development of a child's sense of self and self-esteem. Selfesteem is first taught to children by their parents. The literature results show the most critical period in a person's life is early childhood. In this period, children acquire more knowledge and skills than in other periods. Early childhood attitudes and behaviors tend to persist into adulthood, which makes changing incorrectly learned behaviors quite challenging (Üstünoğlu, 1990). Parental attitudes may vary from society to society and from culture to culture, and they may also differ among families living in the same society. People from different socio-economic groups in society have their own unique cultures and values (Kulaksızoğlu, 2002). There are many factors affecting parents' attitudes. The socioeconomic level of the family, cultural values, parents' level of education, and the relationship between parents are among the factors affecting parental attitudes and they are different in every family (Çağdaş & Seçer, 2005).

The attitudes and behaviors that parents exhibit when interacting with their children are referred to as parental attitudes (Yılmaz, 2000). Research on parental attitudes began in the 1930s and continues today (Holden, 1997). Various parental attitudes representing different approaches have been identified in studies. One notable study is Schaefer's (1959), which examined the dimensions of control-autonomy and love-dislike. The model most commonly used in research is Baumrind's model. Baumrind defined two key types of parental behaviors: care and control. The control dimension reflects the degree to which parents manage and regulate their children's behavior. High control is linked to strict rules and expectations, while low control is characterized by a lack of rules and demands. The affection dimension evaluates how sensitive and caring parents are toward their children and their needs. At one end of this dimension are qualities such as tolerance, warmth, supportiveness, sensitivity, and helpfulness; at the other end are intolerance, indifference, and emotional distance (Yavuzer & Demir, 2016). It has been suggested that parents who are sensitive and affectionate while also being controlling exhibit a democratic attitude. In contrast, parents who are sensitive and affectionate but not controlling display a permissive attitude. Those who are insensitive, indifferent, and controlling typically show an authoritarian attitude, while parents who are both insensitive and unresponsive tend to demonstrate an indifferent attitude toward their children (Berk, 2000; Durkin, 1995).

Baumrind studied authoritarian, democratic, and permissive parenting. In authoritarian attitudes, parents want to change their children's behavior in the direction they want by controlling them with strict and unchanging rules. They want their children to obey the rules without giving

them to speak and to do what they say without discussion, and they punish them if they do not obey. In a permissive attitude, parents always accept their children's wishes and support their behavior. They ignore their children's mistakes and do not punish them, they do not control and monitor their children. The rules and limits can be very flexible. Parents with a democratic attitude explain the logic of the rules and listen to their children. They do not give up discipline while teaching their children self-management skills. They maintain control when they disagree, but they are not restrictive. They raise children who can express themselves and take responsibility. They value their children's opinions when making decisions about them. The child's interaction with the outside world is hindered by parents with control-oriented authoritarian attitudes and parents with permissive attitudes where there is no control (Baumrind, 1966). According to Maccoby and Martin, parents may have similar parenting attitudes towards all their children, but may use different practices with each child. Parents' desire for control and acceptance are the two dimensions used to create the four parenting typologies. Unlike Baumrind, they state that permissive parenting attitudes include two separate categories: permissive/tolerant and permissive/neglectful. In democratic parenting attitudes, parents give their children high love, high interest, high acceptance and high control; in authoritarian parenting attitudes, low love, low interest, low acceptance, but high control; in permissive/tolerant parenting attitudes, high love, high interest, high acceptance, but low control; and in permissive/neglectful parenting attitudes, low love, low interest, low acceptance and low control (Yılmaz, 1999). According to this view, parenting attitudes are defined according to the degree of control and the emotional response they create (Cole & Cole, 2001: 428). Many studies have been conducted on the effects of parental attitudes on academic achievement (Gökçedağ, 2001; Çelenk, 2003; Nimsi, 2006; Yılmazer, 2007; Kaya, Bozaslan, & Genç; 2012). Most of the studies have revealed that democratic parental attitudes have positive effects on children's academic achievement.

Rohner developed a theory to explain the causes and consequences of parents' acceptance or rejection of their children. According to this theory, these behaviors are crucial to a child's personality development. Every child, regardless of their living situation, seeks acceptance from their parents, which represents a form of positive response. If this need is not adequately met, children—regardless of culture, gender, age, or ethnicity—may become aggressive, struggle with low self-confidence and self-esteem, and exhibit erratic moods (Rohner et al., 2005). Parental attitudes are commonly analyzed across three dimensions: democratic, permissive, and authoritarian (Van Der Hors & Sleddens, 2017).

Additionally, an overprotective attitude has been included in the analysis, resulting in four typologies of parental attitudes. Overprotectiveness not only encompasses areas like the care and feeding of a child but also extends to emotional aspects. It involves shielding the child from real-world experiences by removing them from situations where they might feel sadness, anxiety, or fear. Essentially, families with an overprotective attitude believe they need to protect their children from a hostile environment and, as a result, do not view their children as separate and individualized beings (Arı et al., 2002). Mothers with this attitude often overcare for their children, who are old enough to manage their own self-care, and they may complete tasks assigned by teachers for schoolage children. Such mothers may hinder their children's social interactions with peers and restrict their freedom to engage in outdoor activities (Özbey, 2004). Indeed, Parker (1983) found that children raised with an overprotective attitude are more susceptible to emotional problems and depression later in life. The underlying reason for this overprotective behavior often lies in the mother's own feelings of emotional loneliness. Her actions toward her child may serve as a means to cope with her own loneliness and unhappiness (Yavuzer, 2009).

Obesity was once thought to be a problem primarily in developed countries, but it has now become a significant health issue in developing nations as well. It poses a threat to human life, impacting individuals regardless of their socioeconomic status or geographic location, and its prevalence is growing worldwide. The perceptions of obesity have evolved. Historically, being overweight was often seen as a sign of power and wealth, especially in societies facing hunger and famine (Özarmağan & Bozbora, 2002: 7). Research indicates that those who are clinically obese tend to experience higher rates of mental health issues, including depression, behavioral problems, and low selfesteem (Erermis et al., 2004). They also show increased levels of anxiety and depression, as well as a higher incidence of suicide attempts (Gürkan, 2012), compared to those who are not obese. Given the negative effects of obesity on health and well-being, it is crucial to identify and address the risk factors contributing to its development.

A review of the literature reveals that while there is a growing interest in understanding the relationship between parental attitudes and children's eating behaviors, there are relatively few studies specifically examining the link between these attitudes and childhood obesity. Given the rising prevalence of obesity and its impact on health each year, research indicates that childhood obesity may predispose individuals to obesity in adolescence and adulthood (Guo et al., 2002; Şenol, 2006; Köksal & Özel, 2008). This predisposition is associated with the number and size of fat

cells in the body (Heymsfield et al., 1995). Studies show that obese individuals typically have more fat cells compared to those with normal weight (Crisp et al., 1970). Overweight infants and young children tend to develop an excess of adipose cells, leading many obese children to experience weight problems later in life (Butcher et al., 2013). Given these risks and the detrimental effects of obesity on overall health, developing preventive strategies to address the underlying factors contributing to obesity is crucial. This includes examining parental attitudes, which play a significant role in the development of obesity. By identifying the behavioral patterns of parents that influence obesity, we can better highlight the critical aspects of preventive interventions.

According to the World Health Organization, obesity is defined as "abnormal or excessive fat accumulation that poses a health risk" (WHO, 2016). Body Mass Index (BMI) is calculated as the ratio of body weight to the square of height (kg/m²) (Neyzi et al., 2008). While various methods, such as measuring fat ratios, can determine overweight and obesity, the most common and practical method is calculating BMI. It is important to note that this calculation varies for children as their ages differ (Köksal & Özel, 2008). Family behavior patterns significantly influence the development of overeating and obesity (Musante et al., 1998). In young age groups, obesity reflects the food environment at home (Rosenkranz & Dzewaltowski, 2008). The home food environment takes shape based on the attitudes and behaviors of parents. As a child becomes more independent, they develop their eating habits according to their needs, expectations, and desires. Hence, family attitudes and behaviors serve as crucial risk factors in the development of obesity. Parents influence their children's physical activity, food consumption, and sedentary behaviors, and children acquire many habits—both positive and negative-from their families during childhood when these influences are most pronounced (Sahoo et al., 2015: 188; Johnson et al., 2012; Wake et al., 2007; Olvera & Power, 2009). Research indicates that the incidence of obesity is higher in children who experience severe parental neglect compared to those raised with care (Lissau & Sorenson, 1994). Beyond parental attitudes and behaviors towards their children, their attitudes towards food are also crucial, as these effects can last for a long time (Butcher et al., 2013). All these perspectives highlight the significant role that parental behaviors and attitudes toward their children and food play in the formation of obesity.

In a study conducted to assess the prevalence of obesity among 3,171 students aged 6 to 18 in Konya, the obesity rate was found to be 4.9%, while the prevalence of overweight students was 9.4%, and underweight students accounted for 6.5% (Yazar et al., 2019). Obesity is a significant health issue

that affects all segments of society. Children who are obese often face harsh labeling and discrimination, which can lead to serious mental health issues such as major depressive disorder and social anxiety (Eren & Erdi, 2003). This environment fosters fear and anxiety about humiliation, causing many to avoid social interactions and public activities. Consequently, obesity can lead to increased introversion, depression, low self-esteem, difficulties in communication, poor academic performance, and issues in interpersonal relationships, ultimately contributing to broader social problems. problems.

METHOD

This study was conducted with 541 volunteer students and their parents using the quantitative research method from the relational survey model. 'Parental Attitude Scale' and 'Sociodemographic Information Form' were applied to the participants. The form and scale were distributed to the students and their parents were asked to fill in the forms. The population of the study was Konya city center; 3rd grade (n=5.878), 4th grade (n=5.900) students in Meram district, 3rd grade (n=10.112), 4th grade (n=9.992) students in Selçuklu district, 3rd grade (n=5.641), 4th grade (n=5.339) students in Karatay district (n=42862). The size of the population and permission for the study were obtained in writing from Konya Provincial Directorate of National Education. Four schools from the central districts of Konya were selected for the study with the written permission of the Directorate of National Education and the verbal permission of the school principals. The sample of the study consisted of 541 students (312 girls and 229 boys) between the ages of 8-12, 312 girls and 229 boys, who were studying in the 3rd and 4th grades in four primary schools in Selçuklu, Karatay and Meram districts of Konya. Parental Attitude Scale (PAS), 'Sociodemographic Information Form' and 'Anthropometric Measurement' were used as data collection tools in the study.

Parental Attitude Scale (PAS)

Parental Attitude Scale (PAS) was developed by Karabulut Demir and Şendil (2008). The scale was developed to measure parental styles and consists of four sub-dimensions (democratic, authoritarian, permissive and overprotective) and 46 items. The scale is a five-point Likert-type scale and parents indicate their behaviors and attitudes towards their children with options ranging from 1 (never) to 5 (always) on the scale. In the scale items, democratic attitude consists of 17 questions, authoritarian attitude consists of 11 questions, permissive attitude and overprotective attitude consist of 9 questions each. There are no reverse coded items in the scale and getting a high score from a dimension means adopting the parental attitude representing that dimension (Karabulut

& Şendil, 2008). Cronbach's Alpha coefficients were calculated for each sub-dimension of the ETS and it was determined that the coefficients were 0.83 for the 'democratic dimension', 0.76 for the 'authoritarian dimension', 0.75 for the 'overprotective dimension' and 0.74 for the 'permissive dimension'.

After the factor analysis conducted within the scope of this study, it was determined that the variance value explained by the scale was 54.134. Kaiser-Meyer-Olkin KMO value of the scale. 829, df 1035 and sig. .000. Factor loadings of .300 and below and factors loading more than one factor were removed from the scale. The scale formed as a result of the removed items was again determined as 4-factor scale: overprotective, democratic, authoritarian and permissive. As can be seen in Table 1, Cronbach alpha reliability values were .71 for overprotective attitude, .76 for democratic attitude, .70 for authoritarian attitude and .64 for permissive attitude.

Table 1: Reliability Analysis of Parent Attitude Scale Factors

Parameters	Cronbach's Alpha
Overprotective	0,713
Democratic	0,757
Authoritarian	0,704
Permissive	0,640

For the height measurements of the students, a tape measure, which was checked for compliance with the standards, was attached to the door frame of the room where the measurements would be made in each school and to a flat cupboard. Children's heights were measured without shoes, standing in the most upright position with their feet together. Weight measurements were made with a portable electronic scale sensitive to 100 grams, the accuracy of which was previously tested by comparing it with standard weighing devices. The scale was placed on a flat surface and calibrated before each weighing. Body mass index (BMI) is calculated as the ratio of body weight to the square of height (kg/m²) (Neyzi et al., 2008, p. 3). According to the World Health Organization (2026); BMI <18.50 is classified as underweight, 18.50-24.99 as normal, \geq 25.00 as overweight and \geq 30.00 as obese. For the obesity category, BMI percentile values of each child according to age and gender were determined by taking reference values according to Olcay Neyzi standards and those with a BMI between 0-5 percentile values were grouped as underweight, those with a BMI between 5-85 percentile values as normal, those with a BMI between 85-95 percentile values as overweight and those with a BMI above 95 percentile values as obese. These standards were considered valid in the study.

In order to collect the data, the randomly selected sample

Table 2: Findings Related to Parental Attitudes According to Parental Education Level Variable

D.	. 1	≤Pri	mary sc	hool	Seco	ndary S	chool	Н	igh scho	ool	≥)Una	ler-grad	luate		
Paramet n	reier	\bar{x}	Ss	n	х	Ss	n	\bar{x}	Ss	n	\bar{x}	Ss		F	p*
Democratic	father	174	4,4	0,6	94	4,4	0,6	153	4,3	0,5	96	4,3	0,6	0,615	0,606
	mother	228	4,3	0,5	131	4,3	0,6	94	4,3	0,6	88	4,4	0,5	0,400	0,753
Over	father	174	4,0	0,7	94	3,9	0,8	153	3,8	0,7	96	3,6	0,7	10,601	<0,001
protective	mother	228	4,1	0,6	131	3,9	0,7	94	3,7	0,7	88	3,4	0,7	19,662	<0,001
Authoritar.	father	174	2,1	0,8	94	2,0	0,7	153	2,0	0,7	96	2,1	0,7	1,165	0,322
	mother	228	2,1	0,8	131	2,0	0,7	94	1,9	0,7	88	2,0	0,6	0,623	0,600
Permissive	father	174	1,9	0,9	94	1,8	0,5	153	1,9	0,6	96	2,0	0,6	2,407	0,066
	mother	228	1,9	0,6	131	1,9	0,5	94	1,9	0,4	88	2,0	0,6	1,189	0,313

^{*}p<0,05

group was entered at the specified time and anthropometric measurements were made. The measurement phase lasted approximately 50 minutes for each class. 'Parental Attitude Scale', 'Sociodemographic Information Form' and 'Parental Consent Form' were distributed to the parents of the measured students. SPSS 22.0 package program was used to analyze the data obtained. Descriptive statistics were evaluated with number, percentage, mean and standard deviation. Chi-square test was used for the comparison of categorical variables, Independent Samples T Test was used for the comparison of two groups for numerical variables, One-Way Anova was used for the comparison of more than two groups and Pearson Product Moment Correlation Analysis was used for the relationships between variables. A statistical significance level of p < 0.05 was established for this study.

FINDINGS

In the study of primary school children, 57.7% of the participants were girls and 43.2% were boys. The children's ages ranged from 8 to 12 years, with a mean age of 9.38 years. Among them, 68.6% were classified as normal weight, 4.1% were underweight, 15.7% were overweight, and 11.6% were obese. In addition, 85.2% of the children lived in nuclear families.

Regarding the educational level of the children's parents, 42.1% of the mothers graduated from primary school or less, 24.2% graduated from secondary school, 17.4% graduated from high school, and 16.3% had a bachelor's degree or higher. Among fathers, 32.4% had a primary school education or less, 17.5% graduated middle school, 28.5% graduated high school, and 21.6% had a bachelor's degree or higher. In terms of school success, 46.3% of families rated their children's performance as "good," 40.1% as "very good," 12.5%

as "average," and 1.1% as "poor. The number of children per family ranged from 1 to 10, with an average of 2.7 children. However, responses regarding the number of children in the family ranged from 1 to 6, with an average of 1.9 (Table 2).

A one-way ANOVA test was conducted to determine if there was a difference in parental attitudes based on the parents' education levels. The analysis revealed a statistically significant difference in overprotective parental attitudes related to parental education (p < 0.01). Specifically, the mean overprotective attitude was highest among both mothers (F = 10.601; p = 0.001) and fathers (F = 19.662; p = 0.001) with educational attainment of primary school or lower. As parental education levels increased, the tendency for overprotective attitudes decreased. This suggests that parents with lower educational levels are more likely to exhibit overprotective behaviors. No significant differences were found for other parental attitudes.

Table 3. Findings Related to Child BMI Percentile Value According to Family Structure Variable

Parameters	Nuclear family (n=461)		fa	tended mily =80)	t	<i>p</i> *
	x	Ss	Ī.	Ss		
BKİ percentile	56,7	30,4	66,7	28,7	-2,860	0,005

An independent samples t-test was conducted to determine whether the mean body mass index (BMI) percentile values of the children differed by family structure. The results showed that children from nuclear families had a mean BMI percentile of 56.7, while children from extended families had a mean BMI percentile of 66.7. This indicates that the mean BMI percentiles for children raised in extended

families were significantly higher than those raised in nuclear families (t = -2.860, p < .05).

Table 4: Obesity Status in Children According to Parental Obesity Status

Parameters		ld not	Chil	d abacita		
Furumeters		esity	Criti	d obesity		
Mother obesity	n	%	n	%	χ^2	p
Not obesity	376	89,5	44	10,5	2,012	0,156
Obesity	102	84,3	19	15,7		
Father obesity	n	%	n	%	χ^2	p
Not obesity	336	90,6	35	9,4	4,947	0,026
Obesity	142	83,5	28	16,5		
*p<0,05						

The relationship between childhood obesity and the obesity status of parents was analyzed using the Pearson chisquare test. When comparing the obesity status of mothers and fathers with that of their children, no statistically significant relationship was found between mothers and children (p=0.156). In contrast, a statistically significant relationship was identified between fathers and children (p=0.026). Table 4 indicates that children with obese fathers are at a significantly higher risk of being obese (Table 5).

The difference between parents' perceptions of their children's achievement status and parental attitudes was

analyzed using a One-way ANOVA test. The analysis revealed a significant relationship between parents' perceptions of their children's achievement status and three types of parental attitudes: democratic (F=3.770; p=0.011), authoritarian (F=6.279; p=0.000), and permissive (F=3.637; p=0.013). However, no significant relationship was found with the overprotective attitude (F=0.024; p=0.995). As parents' scores on democratic attitudes increased, their perceptions of their children's achievement status also increased. Conversely, as the scores for authoritarian and permissive attitudes rose, their perceptions of their children's achievement status decreased. Therefore, it can be concluded that families who adopt a democratic attitude tend to view their children as more successful compared to families with other types of attitudes (Table 6).

An independent samples T-Test was conducted to examine whether the mean parental attitude scores differed based on the child's obesity status. The analysis of the relationship between parental attitudes and obesity revealed no statistically significant differences for the overprotective attitude (t = 1.313; p = .339), democratic attitude (t = 0.959; p = .190), and permissive attitude (t = 0.009; p = .993). However, there was a statistically significant relationship between authoritarian attitudes and obesity (t = -2.814; p = .005) at the p < 0.05 level. This suggests that obese children have higher mean scores for their parents' authoritarian attitude compared

Table 5: Parental Attitudes According to Perceptions of Their Children's Achievement Status

Parameters	Bad (n=6)		Middle (n=73)		Good (n=249)	Very go	ood (N=216)		
	X	Ss	X	Ss	x	Ss	x	Ss	\bar{F}	p
Overprotective	3,94	0.89	3,92	0.70	3,92	0,77	3,90	0.78	0.024	0.995
Democratic	4,23	0.63	4,28	0.55	4,32	0,59	4,48	0.57	3.770	0.011
Authoritar- ian	2,20	0.66	2,36	0.76	2,12	0.73	1,93	0.75	6.279	0.000
Permissive	2,03	0.75	2,16	0.68	1,89	0.57	1,92	0.63	3.637	0.013

*p<0,05

Table 6. The Relationship between Parental Attitudes and Children's Obesity Status

		Not obesity (n=478)		Obesity (n=63)			
Parameters w	x	Ss	$\bar{\mathbf{x}}$	Ss	t	p	
Overprotective	3,93	0.76	3.83	0.76	1.313	0.339	
Democratic	4.39	0.58	4.29	0.61	0.959	0.190	
Authoritarian	2,03	0.74	2,31	0.82	-2.824	0.005	
Permissive	1,94	0,62	1,94	0.54	0.009	0.993	

*p<0,05

to non-obese children, indicating that authoritarian attitudes may influence obesity. (Table 7)

According to the Pearson correlation analysis presented in Table 7, there is a positive and significant relationship between democratic attitude and protective attitude (r = .278; p < .01). Conversely, there are negative and significant relationships with authoritarian attitude (r = - .284; p < .01) and permissive attitude (r = - .155; p < .01). This suggests that parents with democratic attitude are likely to exhibit protective attitude, while authoritarian and permissive attitude is less likely.

Additionally, as the democratic attitude increases, a positive relationship with the child's height is observed (r = .101; p < .05). Concerning protective attitude, there is a negative correlation with income (r = .221; p < .01), while a positive correlation with the mother's weight (r = .095; p < .05). No significant relationship was found with authoritarian attitude; however, an increase in permissive attitude increase in income (r = .113; p < .01) and a decrease in the father's weight (r = .115; p < .01). Furthermore, as family income rises, the child's height (r = .1348; p < .01) and weight (r = .095; p < .05) increase, while the mother's weight tends to

decrease slightly (r = -.094; p < .06), and the father's weight tends to increase (r = .094; p < .05). A significant relationship exists between the child's height and weight (r = .541; p < .01), as well as the height and weight of the father (r = .174; p < .01). As the child's weight increases, both the mother's weight (r = .127; p < .01) and the father's weight (r = .254; p < .01) also increase. In summary, a democratic attitude aligns with a protective attitude but differs from authoritarian and permissive attitudes. The increase in children's weight appears to be influenced by their parents' weight in accordance with genetic predispositions, with a stronger correlation observed with the father's weight. Additionally, a permissive parental attitude tends to increase as the father's weight increases (Table 8).

The regression model used to predict obesity levels in 3rd and 4th-grade students based on parental attitudes explained approximately 1% of the observed variance (F = 2396, p < .05). The analysis revealed that democratic (β = .06, p < .05), protective demanding (β = -0.03, p < .05), and permissive (β = -0.06, p < .05) parental attitudes did not make a significant contribution to the model. In contrast, authoritarian parental attitudes (β = .09, p < .05) had a significant impact. Specifically,

Table 7: Correlation Relationship between Paren tal Attitudes and Income, Height and Weight

	Demo-	Over	Authori-	D	T	Çhild	Child	Mom	Dad
	cratic	protective	tarian	Permissive	Income	height	weight	weight	weight
Democratic	1	.278**	284**	155**	014	.101*	.011	.031	.026
Overprotective		1	010	.039	221**	037	060	.095*	053
Authoritarian			1	.223**	028	.023	.033	.080	025
Permissive				1	.113*	.029	045	023	115**
Income					1	.134**	.097*	094*	.094*
Child height						1	.541**	.056	.174**
Child weight							1	.127**	.254**
Mom weight								1	.138*
Dad weight									1

^{*}p<0,05; **p<0,01

Table 8. Multiple Linear Regression Analysis on the Predictive Effect of Parental Attitudes on Students' Obesity Levels

						% 95 Confidence		
Variable	B	Std.Error	β (Beta)	t	p	Upper	Lower	
(Constant)	2.77	.32		8,71	.000	3,025	2.142	
Democratic	08	.06	.060	0,55	.200	0,053	192	
Overprotective	030	.04	031	1,72	.491	0,158	115	
Authoritarian	.09	.04	.091	-1,59	.046	0,013	.001	
Permissive	08	.05	065	4,34	.143	0,046	182	

N=540 R=.133, Adj. R²=0,010 F=2396 p<.05

Constant: Obesity

Table 9. Multiple Linear Regression Analysis Regarding the Predictive Power of Parental Attitudes on Students' School Achievement Levels

			β (Beta)			% 95 Confidence		
Variable	В	Std.Error		t	p	Upper	Lower	
(Constant)	4.19	.32		12.99	.000	4.824	3.557	
Democratic	.13	.06	.10	2.11	.035	.245	.009	
Overprotective	04	.04	04	84	.403	.049	123	
Authoritarian	14	.04	14	-2.99	.003	047	225	
Permissive	04	.05	03	76	.448	.065	146	

N=337 K=.196, Auj. K =0,032 F=3440 p<.

Constant: School achievement

a one-point increase in authoritarian parental attitude is associated with an increase of 0.09 in the child's obesity level.

The regression equation for predicting obesity is as follows:

Obesity = 2.77 - 0.08 * Democratic attitude - 0.03 * Protective attitude + 0.09 * Authoritarian attitude - 0.08 * Permissive attitude.

The regression model assessing the impact of parental attitudes on the school achievement levels of 3rd and 4th-grade students explained approximately 3% of the observed variance [F = 5440, p < .01]. Both democratic (β = .10, p < .05) and authoritarian (β = -0.14, p < .01) parental attitudes significantly contributed to the model. In contrast, protective demanding (β = -0.04, p < .05) and permissive (β = -0.03, p < .05) parental attitudes did not show significant contributions. The regression analysis results indicate that a one-point increase in authoritarian parental attitude is associated with a decrease of 0.14 in the child's school achievement. Conversely, a one-point increase in democratic parental attitude is linked to an increase of 0.13 in the child's school achievement.

According to these findings, the regression equation for predicting school achievement is as follows:School Achievement = 4.19 + 0.13 * Democratic Attitude - 0.04 * Protective Attitude - 0.14 * Authoritarian Attitude - 0.03 * Permissive Attitude.

CONCLUSION AND DISCUSSION

This study examined the relationship between school achievement, obesity levels, and parental attitudes among 3rd and 4th-grade children. The results indicate that the average score for overprotective parental attitudes increases from those with undergraduate degrees and higher to those with primary school education and below. Moreover, parents with lower education levels tend to exhibit more overprotective attitudes. There are differing findings on this topic in the literature. For instance, the study conducted by Demiriz

and Öğretir (2007) found that mothers with only primary education demonstrated higher levels of overprotectiveness compared to those who graduated from secondary school or obtained higher degrees. Conversely, Aydoğdu et al. (2016) observed that parental overprotectiveness increases in direct proportion to the level of education.

This study examined whether obesity rates differ significantly based on family structure. According to the findings, the mean BMI percentile values of children living in extended families were significantly higher than those of children living in nuclear families. This suggests that children in extended family settings may face greater risk factors for obesity. The primary members of extended families are often grandparents. While grandparents can positively impact a child's development, they can also have negative effects. Some outdated practices from the past may harm a child's physical health (Şenol, 2006: 42). Living in close proximity can heighten the risk of these negative influences. Sayın (1990) notes that the distinction between nuclear and extended family structures lies in the control and communication exercised by family elders. In extended families, elders often exert more control over individuals, whereas this level of control is typically less in nuclear families. A study conducted in Antalya found no significant relationship between family structure and obesity (Önder et al., 2015). Conversely, research in China indicated that children in extended families were at a higher risk of obesity compared to those in nuclear families. It was noted that children raised by their grandparents might be more prone to obesity because some grandparents hold the belief that "a child who eats a lot is healthier and stronger" (Zong et al., 2015). The findings of the present study may be understood in the context that family elders in Turkey-such as grandmothers and grandfathers—often believe that restricting food intake is inappropriate and that ample eating signifies good health.

The study investigated whether parental attitudes varied according to monthly income levels. The results indicated that

parental attitudes, specifically overprotective and permissive attitudes, were influenced by the monthly income variable. It was found that overprotective attitudes tended to increase as monthly income decreased, while permissive attitudes became more prevalent as monthly income increased. Parents with lower income may adopt overprotective behaviors to shield their children from financial difficulties, perceiving the external environment as a threat and feeling uncertain about potential dangers. According to Ar1 et al. (2002), families with overprotective attitudes often believe they need to safeguard their children from a hostile world. Consequently, financial struggles may contribute to an increase in overprotective behavior among these parents. The study did not differentiate between permissive/tolerant attitudes and permissive/ neglectful attitudes, as the scale used included questions that addressed both. The commonality between these two types of attitudes is the lack of supervision and the provision of unlimited freedom. Parents with higher economic status may believe that providing their children with the best material opportunities is the most appropriate approach.

The study highlights a significant relationship between the obesity status of fathers and that of their children. It suggests that children whose fathers are obese are more likely to become obese themselves, influenced both by genetic predisposition and by social learning, as they often view their fathers as role models. In contrast, when comparing the obesity status of mothers with that of their children, no significant relationship was found. According to a similar study, child obesity does not vary significantly based on maternal obesity (Uskun et al., 2005: 19). This discrepancy may be attributed to a tendency among mothers to conceal their weight. It is proposed that measuring the height and weight of parents directly, rather than relying on self-reported data, would yield more accurate results. Literature indicates that the presence of obesity among family members increases the risk of obesity in children (Kumar & Kelly, 2017; Cleland et al., 2008; Ohlund et al., 2010; Fowler & Kahwati, 2004: 2591). Bahreynian et al. (2017) found that parental weight is a predictor of obesity in children and adolescents, noting a correlation between parental body mass index and children's birth weight. Their study suggests that parental obesity poses a risk for child obesity, primarily due to the interaction of genetic and environmental factors. Obesity is also recognized as a social epidemic. Some studies indicate that if an individual is close to someone who is obese—be it a parent, spouse, relative, or friend—their own risk of obesity increases by 57%. This effect may stem from the influence of close relationships, leading to changes in attitudes about weight and eating habits (Butcher et al., 2013: 619). If close acquaintances can influence eating attitudes, it's probable that parents in the same household also impact their children's eating habits. These studies highlight the risks posed to children by parental obesity.

In the study, a significant relationship was found between parents' democratic, authoritarian, and permissive attitudes and their perceptions of their children's academic achievement. As parents' democratic attitude scores increase, their perceptions of their children's success also increase. Conversely, as authoritarian and permissive attitude scores increase, their perceptions of their children's achievement tend to decrease. This suggests that families with democratic attitudes are more likely to view their children as successful compared to families with other attitudes. Supporting this finding, Yavuzer and Demir (2016: 70) noted that children from permissive families generally exhibit lower academic performance. Additionally, Cohen et al. (1997) discovered that children of parents with high democratic scores tend to be more successful, while those with high authoritarian and permissive scores tend to struggle academically. In a study by Steinberg et al. (1989), which aimed to test the hypothesis that only democratic parental attitudes contribute to academic success and foster autonomy, it was found that democratic parents create an environment conducive to their children's academic achievements. Their approach appears to facilitate school success. Therefore, the correlation between parenting styles and children's academic performance in various studies suggests that parental attitudes significantly influence children's achievement.

In the study, the relationship between parental attitudes and childhood obesity was examined. The findings revealed a significant connection between authoritarian parenting styles and obesity. However, no statistically significant relationship was identified between overprotective, democratic, or permissive parenting styles and obesity. It was noted that obese children had significantly higher average scores of their parents' authoritarian attitudes compared to nonobese children. When evaluating the relationship between parents with authoritarian attitudes and their children, it becomes clear that a healthy relationship is often lacking. Negative interactions between parents and children can adversely affect the child's mental health, potentially leading to psychological disorders during adolescence. This can result in the child withdrawing from their environment and overeating (Fowler & Kahwati, 2004). Similar findings have emerged in studies from other countries. For instance, Berge et al. (2010) reported that children raised in households with authoritarian parental attitudes were more likely to be obese, while democratic parental attitudes seemed to offer a protective effect against overweight and obesity. A study by Wake et al. (2007) found a significant association between high supervision and control scores (indicative of authoritarian attitudes) of fathers and their children's BMI percentile values. Kakinami (2015) also reported that authoritarian parenting correlated with a higher prevalence of obesity. In research conducted in the United States, which considered all four types of parental attitudes, it was concluded that the risk of children being overweight was most strongly associated with authoritarian parenting. Additionally, children of permissive or neglectful mothers were found to be twice as likely to be obese compared to those with mothers exhibiting democratic attitudes (Rhee et al., 2006). A study in Malaysia revealed that increased parental pressure and restrictions were associated with higher rates of obesity among children (Noor et al., 2012). Authoritarian parents tend to be less sensitive and more demanding of their children. Their lack of affection, attention, and sensitivity to their children's needs may increase the risk of obesity by increasing physiological stress levels. In addition, these parents often control their children's food intake and insist that they eat according to their preferences (Frankel & Hughes, 2012). As a result, children's ability to regulate their energy intake may be underdeveloped, leading them to overeat when given the opportunity (Patrick et al., 2013).

The results of the regression analysis examining the effect of parental attitudes on childhood obesity and school performance revealed some significant findings. Specifically, a one-point increase in authoritarian parental attitudes was associated with a 0.09 increase in child obesity and a 0.14 decrease in school achievement. In contrast, a one-point increase in democratic parental attitudes was associated with a 0.13 increase in the child's academic achievement. Overall, the analysis showed that authoritarian attitudes were associated with both obesity and lower academic achievement, while democratic attitudes had a positive effect on academic achievement.

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