

The Investigation of Children's Persistent and Reactive Behavior With Respect to Parenting Attitudes

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Abstract

The aim of the current study is to investigate the contributions of maternal attitudes to children's persistent and reactive behaviors. The study sample is made up of 202 preschoolers aged 48-72 months and their mothers. A demographic form was used to collect data on children's age, gender and mothers' working status. Persistence and Reactivity Subdimensions of the The Short Temperament Scale for Children and Parenting Attitude Scale for maternal attitudes were used for the data collection. Both forms were completed by the mothers. An independent sample t-test, a Pearson Product-Moment Correlation and multiple regression were used to test the data collected from the mothers. The results showed that girls, 6-year-olds (60-72 months) and children with working mothers were more persistent compared to boys, 5-year-olds and children with unemployed mothers, respectively. The findings indicated a negative and significant relationship between persistence and overprotective parenting attitudes and a positive and significant relationship between reactivity and permissive and overprotective parenting attitudes. Parenting attitudes explained %5 and %7 of the variation in children's persistent and reactive behavior, respectively. Overprotective and permissive parenting attitudes significantly predicted persistence and reactivity, respectively.

Keywords: Persistent Behavior, Reactive Behavior, Parental Attitudes

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INTRODUCTION

Childhood is a period when inherited traits of a child interact with environmental factors forming the basis of personality and temperament. During childhood, some positive and negative behaviors become permanent and a part of child's temperament later on (Akın-Sarı, 2018; Bayındır, Ural, & Balaban-Dağal, 2018). Persistent and reactive behaviors are two of the nine basic temperament traits identified by Thomas and Chess (1977). Persistence and reactivity is of great importance for development, as they seem to be related to social, emotional and academic skills. Persistence is the ability to deal and cope with a difficult task or challenge. Persistence helps us to see beyond the short-term goals and delay them to achieve something more important and rewarding in the long run (Farrington et al., 2012), which also acts as a means of developing awareness of and managing delay and procrastination (Ömürlü, 2018). Research shows that there is an association between persistence and self-regulation, and academic success (Bramlett, Scott, & Rowell, 2000; Trentacosta & Izard, 2007) while low levels of persistence indicates having difficulties with performing long-term tasks and poor academic performance (Arnold, Kupersmidt, Voegler-Lee, & Marshall, 2012; McClelland, Acock, Piccinin, Rhea, & Stallings, 2013). Reactivity, on the other hand, is a child's reaction to positive or negative circumstances (Thomas & Chess, 1977). Positive reactivity includes positive behaviors expected of a child whereas negative reactivity is defined as the child's exhibition of sudden, strong and intense reaction to stimuli without regulating emotions and managing behaviors (Rothbart, Bates, Damon, & Lerner, 2006). Children with high negative reactivity seem to have less motivations and attention span in classroom and show less cooperative behaviors whereas low negative reactivity is associated with coping with challenging academic tasks, sustaining engagement and higher academic performance (Algozzine, Putnam, & Horner, 2012). Negative reactivity is also associated with depression and anxiety disorder (Rothbart, 2012).

Parental attitudes are parent behaviors and traits defining parent-child interactions in various contexts that creates an interactive atmosphere for parent-child relationships (Darling & Steinberg, 1993). Democratic parenting involves a respectful, supportive and reassuring attitude towards children whereas authoritarian parenting is characterized by strict rules established by parents and obedience where children's voices are not heard. Overprotective parenting style involves too much control and caring. Overprotective parents often do not let their children meet their own needs as they usually do the tasks that children are supposed to do (Çağdaş, 2002). Permissive parenting is characterized by very few guidelines and rules where children are given lots of freedom (Yavuzer, 1999).

Anyone who touches a child's life also affects the people around the child. In his ecological theory, Bronfenbrenner (1979) states that these environmental systems are inextricably tied to each other. The most immediate surroundings of a child, including family and parental attitudes are described as the microsystem, which is the most important system. Democratic, authoritarian, permissive or overprotective parental attitudes are closely related to children's reactive and persistent behavior (Santrock, 2015). There is an interplay between parental attitudes and children's reactive and persistence behaviors (Burke, Pardini, & Loeber, 2008). Some studies indicate that low persistence and over-reactive behavior is associated with negative parental attitudes and that children are described as "difficult" or "easy child" based on these behaviors (Mc Clowry, 2003; Thomas & Chess, 1977).

Positive parental attitudes seem to elicit persistent behavior while negative parental attitudes are more likely to reinforce negative reactivity. Kiff, Lengua, and Zalewski (2011) found that consistent and approving attitudes may decrease negative reactivity while increasing persistent behavior. Research indicates that the parents of more reactive children tend to be more controlling and less guiding (Karrass & Braungart-Rieker, 2003) and show less warmth and affection compared to the parents of more persistent children (Scaramella, Sohr-Preston, Mirabile, Robison, & Callahan, 2008). Unlike reactive children, persistent children are less uncomfortable with their parents' attitudes, expectations and wishes while demonstrating more agreeableness (Braungart-Rieker, Garwood, & Stifter, 1997). Bryan and Dix (2009) investigated the interactions of 114 mothers and their infants aged between 14-27 months and found that mothers felt anger and disappointment because of their highly reactive children and tended to be more restrictive to their children. Kahraman and Yılmaz-

Irmak (2009) employed structural equation modelling and concluded that temperament traits in children predicted parental attitudes and parental attitudes had an impact on children's behaviors. Belsky, Fish, and Isabella (1991) stated that the mothers of highly reactive children whose reactivity decreased over the course of time tended to have more integrative, sensitive and responsive parenting attitudes compared to the mothers of highly reactive children whose reactivity level did not decrease over time. Similarly, Yağmurlu, Sanson, and Köymen (2005) point out that there is a negative correlation between children's negative reactive behavior and persistence. Persistent behavior seems to be associated with less parental stress. The present study aims to investigate the association between parental attitudes and children's persistent/reactive behavior. Therefore, the following research questions are addressed:

1. Do parental attitudes differ by children's gender?
2. Do children's persistence and reactive behaviors differ by children's gender, age and maternal work status?
3. Is there an association between parental attitudes and children's persistent/reactive behaviors?
4. Do parental attitudes predict children's persistent and reactive behaviors?

METHOD

The current study has a quantitative design with a relational approach in order to better understand the phenomena by investigating the links between variables. Correlational designs are examples of relational methods (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2012).

Participants

The study sample is made up of preschoolers attending Güngören Polis Amca Preschool in İstanbul during the Fall and Spring term in 2019-2020, and their mothers. Participants were selected based on criterion sampling, which is a strategy of purposeful sampling where observation units may consist of persons, events, objects or situations of a particular nature (Büyüköztürk et al., 2012).

There are 93 girls (%46) and 109 boys (%54) in the sample. 55 of the children were 5 years-old (%27,2) while 147 of them were 6 years-old (%72,8). 72 of the children (%35,6) do not have any siblings whereas 87 of children (%43,1) had 1 sibling, 30 of them had 2 siblings (%14,9) and 13 of them had 3 siblings or more (%6,4). 107 of the mothers (%53) were unemployed and 95 of the mothers (%47) had a job. 40 of the mothers (%19,8) were graduates of primary school, 67 of them (%33,2) had a high-school diploma while 95 of them (%47) were graduates of higher education. 25 of the children (%12,4) came from Low SES households while 137 children (%67,8) came from middle SES households. 40 children (%19,8) came from high SES households. It was the first year at school for 91 of the children (%45) whereas 87 children (%43,1) had attended preschool for two years. Only 24 children (%11,9) had a three-year school attendance.

Data Collection Tools

Demographics Form was used to collect mother and child demographics and The Short Temperament Scale for Children was used to assess children's reactivity and persistence. Parenting Attitude Scale was used to collect data on maternal attitudes.

Demographics Form

Developed by the researchers, it aims to collect demographic data from the participating children and parents. It was completed by the mothers.

The Short Temperament Scale for Children

Developed by Prior, Sanson, and Oberklaid (1989) and adapted to Turkish by Yagmurlu and Sanson (2009), The Short Temperament Scale for Children is rated on a 6-point Likert scale. It has 30 items with four dimensions, which are Reactivity, Persistence, Approach and Rhythmicity. Reactivity refers to a child's tendency to get upset or annoyed with a task while persistence is a child's pleasure in completing a task before going to the next. Approach is the shyness of a child when introduced to new people and environments while rhythmicity measures the rhythm of a child's functioning (sleep, meals, toilet). The internal consistency coefficients were .80, .77, .48 and .76 for Approach, Reactivity, Rhythmicity and Persistence, respectively in the validation study (Yağmurlu & Sanson, 2009). In the current study, the internal consistency coefficients were .50, .70, .66 and .57 for Approach, Reactivity, Persistence and Rhythmicity, respectively. It was completed by the mothers.

Parenting Attitude Scale (PAS)

Developed by Demir and Şendil (2008), it aims to evaluate the parenting behaviors of mothers and fathers towards their children aged between 2-6 years old. The scale consists of 46 items and 4 dimensions, which are Authoritative, Authoritarian, Overprotective and Permissive Attitudes. This scale was collected on 420 parents who had children aged between 2-6 years old from low, middle and high SES households. Another scale for parenting attitudes was used for 56 parents to test the construct validity. In the original study, Cronbach's alphas for the internal consistency of the democratic, authoritarian, overprotective, and permissive subdimensions were .83, .76, .75, and .74, respectively. In the current study, the internal consistency coefficients for the democratic, authoritarian, overprotective, and permissive subdimensions were .97, .93, .89, and .83, respectively. The scale was completed by the mothers.

In the current study, having a child aged 48-72 months, having a typically developing child and volunteering to participate were specified as the main criteria. After getting ethics approval for the current study, preschool teachers were informed about the aim of the study. Parents of 48-72-month-old children were contacted through the teachers who volunteered to participate and they were informed about the aim of the study and data collection process. They were also instructed how to fill the demographics form and Short Temperament Scale for Children (Parent Form) and Parenting Attitude Scale. The mothers who filled the forms handed them to the teachers in an envelope. Of the 310 mothers, 210 agreed to participate and filled the forms. Eight forms that were incomplete were excluded from the sample.

Data Analysis

The data collected with the demographics form, Short Temperament Scale for Children and Parenting Attitude Scale completed by the mothers were analyzed with IBM SPSS software. The Kolmogorov-Smirnov statistic was used to test the distribution of the data obtained from the mothers and the results indicated a normal distribution. An independent t-test was used to determine whether there was a difference in children's persistent and reactive behavior between groups. A Pearson Product-Moment Correlation was used to determine whether there was a relationship between children's persistent/reactive behavior and parental attitudes. Multiple regression was used to test the predictive power of parental attitudes for children's persistent/reactive behavior. The results are discussed with reference to the literature.

FINDINGS

The data was analyzed to investigate children's persistence and reactivity with respect to parental attitudes and the findings are presented in the tables below.

Table 1 Independent samples *t*-test results comparing girls and boys on parental attitudes

Dimensions/Child Gender	n	\bar{x}	Sd	df	t	p
Democratic attitude						
Girls	93	3,56	,29	200	-,02	,97
Boys	109	3,56	,35			
Authoritarian attitude						
Girls	93	3,49	,32	200	-,18	,85
Boys	109	3,50	,37			
Permissive attitude						
Girls	93	2,73	,39	200	-,85	,39
Boys	109	2,77	,39			
Overprotective attitude						
Girls	93	2,93	,361	200	,32	,74
Boys	109	2,92	,381			

The results comparing girls and boys on maternal attitudes show that girls ($\bar{x}=3,56$) and boys ($\bar{x}=3,56$) had similar mean scores. For authoritarian and permissive parental attitudes, boys ($\bar{x}=3,50$; $\bar{x}=2,77$) scored higher than girls ($\bar{x}=3,49$; $\bar{x}=2,73$) whereas girls ($\bar{x}=2,93$) scored higher than boys ($\bar{x}=2,92$) for overprotective parental attitudes. We did not find a statistically significant difference between the groups ($p>.05$). In other words, parental attitudes did not differ by child gender.

Table 2 Independent samples *t*-test results comparing girls and boys on persistent/reactive behaviors

Dimensions/Child's Order	Birth	n	\bar{x}	sd	df	t	p
Persistence							
Girls		93	4,04	1,01	200	3,07	,002*
Boys		109	3,61	,97			
Reactivity							
Girls		93	2,60	,71	200	-1,85	,063
Boys		109	2,80	,80			

* $p < .01$

Children's persistent and reactive behavior differed significantly by gender $t_{(200)}=3,07$, $p<.01$. Girls ($\bar{x}=4,04$) scored significantly higher than boys ($\bar{x}=3,61$) on persistent behavior whereas boys ($\bar{x}=2,80$) scored higher than girls ($\bar{x}=2,60$) on reactive behavior although the difference between them were not meaningful $t_{(200)}= -1,85$, $p>.05$.

Table 3 Independent samples *t*-test results comparing age groups on persistent/reactive behaviors

Dimensions/Child's Order	Birth	n	\bar{x}	sd	df	t	p
Persistence							
5 years-old		55	3,57	1,06	200	-2,20	,02*
6 years-old		147	3,93	1,18			
Reactivity							
5 years-old		55	2,77	,83	200	,76	,44
6 years-old		147	2,68	,74			

* $p < .05$

Children's persistent behavior differed significantly by age and there is a significant difference between 6-year-olds (60-72 months) ($\bar{x}=3,93$) and 5-year-olds (48-60 months) ($\bar{x}=3,57$) $t_{(200)}= -2,20$, $p < .05$. 6-year-olds ($\bar{x}=2,68$) scored lower than 5-year-olds ($\bar{x}=2,77$) on reactive behavior although the difference between them were not meaningful. Persistent behavior differed by age favoring 6-year-olds.

Table 4 Independent samples *t*-test results comparing working and unemployed mothers on persistent/reactive behaviors

Dimensions	n	\bar{x}	sd	df	t	p
Persistence						
Unemployed	107	3,68	1,07	200	-2,02	,04*
Working	95	3,96	,93			
Reactivity						
Unemployed	107	2,75	,80	200	,83	,40
Working	95	2,66	,72			

* $p < .05$

Children's persistent and reactive behavior differed significantly by maternal employment status. Children with working mothers ($\bar{x}=3,96$) scored significantly higher than children with unemployed mothers ($\bar{x}=3,68$) on persistent behavior $t_{(200)} = -2,02$, $p < .05$. There was no significant difference between the groups on reactive behavior $t_{(200)} = ,83$, $p > .05$.

Table 5 Correlations between parenting attitudes, persistence and reactivity

Dimensions	1	2	3	4	5	6
1 Democratic attitude	1					
2 Authoritarian attitude	,309**	1				
3 Overprotective attitude	-,053	,129	1			
4 Permissive attitude	,128	,173	,301**	1		
5 Persistence	,105	-,024	-,175*	,060	1	
6 Reactivity	,040	,111	,240**	,142*	-,172*	1

* $p < .05$ ** $p < .01$

Correlation results show that there is a negative and meaningful correlation between persistence and overprotective parenting attitude ($r = -,175$, $p < ,05$) whereas a positive and meaningful correlation was observed between reactivity-overprotective attitude ($r = ,240$, $p < ,01$) and between reactivity-permissive attitude ($r = ,142$, $p < ,05$). In addition, a negative and significant relationship between children's persistence and reactivity ($r = -,172$, $p < ,05$). In other words, more persistent children tend to be less reactive.

Table 6 Multiple Regression Summary for Parental Attitudes Predicting Children's Persistent Behavior

Variables	B	Standard Error	β	t	p	Pair r	Partial r
Constant	3,777	,639		5,913*	,000		
Democratic attitude	,171	,135	,094	1,269	,206	,105	,090
Authoritarian attitude	-,073	,116	-,047	-,631-	,529	-,024	-,045
Overprotective attitude	-,305	,113	-,199	2,707*	,007	-,175	-,189
Permissive attitude	,180	,115	,116	1,573	,117	,060	,111

R= ,230 R²= ,053
 F₍₄₋₁₉₇₎=2,742 p= ,030

Multiple regression results for maternal attitudes predicting children's persistent behavior indicate a meaningful relationship ($r = ,844$, $r^2 = ,053$) between democratic, authoritarian, overprotective and permissive attitudes all and children's persistent behavior $F_{(4-197)} = 2,742$, $p = ,01$). These four variables explain 5% of the variation in children's persistent behavior. Significance tests for the regression coefficients indicate that only overprotective parenting attitude ($p < ,01$) significantly predicts persistence.

Table 7 Multiple Regression Summary for Parental Attitudes Predicting Children’s Reactive Behavior

Variables	B	Standard Error	β	t	p	Pair r	Partial r
Constant	1,115	,530		2,104	,037		
Democratic attitude	,035	,112	,023	,309	,758	,040	,022
Authoritarian attitude	,086	,097	,066	,891	,374	,111	,063
Overprotective attitude	,274	,094	,214	2,927*	,004	,240	,204
Permissive attitude	,082	,095	,063	,863	,389	,142	,061
R= ,261	R ² = ,068						
F ₍₄₋₁₉₇₎ =3,614	p= ,007						

Multiple regression results for maternal attitudes predicting children’s reactive behavior indicate a meaningful relationship (R=,261, R²= ,068) between democratic, authoritarian, overprotective and permissive attitudes all and children’s reactive behavior F₍₄₋₁₉₇₎ =3,614, p= ,01). These four variables explain %7 of the variation in children’s reactive behavior. Significance tests for the regression coefficients indicate that only overprotective parenting attitude (p<01) significantly predicts reactivity.

DISCUSSION

The aim of the current study was to investigate the contributions of maternal attitudes to children’s persistent and reactive behaviors. The results showed that girls, 6-year-olds (60-72 months) and children with working mothers were more persistent compared to boys, 5-year-olds and children with unemployed mothers, respectively. Erdiñç (2009) and Akbaba (2017) also observed that girls demonstrated more persistent behavior compared to boys. Mothers reinforcing the behaviors that they think appropriate for their children’s gender roles increase children’s tendency to demonstrate those behaviors (Santrock, 2015). Miller-Lewis et al. (2006) found that children reported to have non-persistent and over-reactive temperament had externalizing problems at age 6.

The findings of the present study indicated a negative and significant relationship between persistence and overprotective parenting attitudes and a positive and significant relationship between reactivity and permissive and overprotective parenting attitudes. In other words, more protective parents tend to have children with less persistence. Parents’ permissive and overprotective attitudes seem to increase as the children’s reactivity increases. This might suggest that allowing children to do whatever they want without setting up rules may increase reactivity contrary to expectations. Democratic, authoritarian, overprotective and permissive attitudes all explained %5 and %7 of the variation in children’s persistent and reactive behavior, respectively. The current study is in line with the findings of previous studies positing the notion that maternal attitudes in child-rearing shapes children’s behavior styles. McClowry, Rodriguez, and Koslowitz (2008) concluded that parental attitudes and behaviors which are appropriate for children’s capabilities and development may reduce reactive problem behaviors and support their development. Berk (2013) stated that inappropriate parental attitudes may lead to problem behaviors and adaptation problems.

Seo and Lee (2012) found that mothers interacting with their children in a constructive way influence their children’s behavior in a positive way whereas mothers who have a rejecting attitude have a negative impact on their children’s development. Akbaba (2017) noted that negative maternal attitudes increased children’s reactive behaviors and those children with higher reactivity are less competent in emotion-regulation compared to peers. Micalizzi, Wang, and Saudino (2017) investigated the link between reactivity and negative parental attitudes and identified a significant association between them. Buğan (2017) identified a negative relationship between tolerant parenting attitude and reactivity. Unlike the findings of the present study, Uçar (2017) observed that persistent children exhibited physical aggressiveness, such as hitting and pushing, more often than children with reactive temperament. Altan (2006) found that mothers with positive parenting attitudes are more likely to have children with better emotion regulation and that reactive and persistent children are better at coping with negative emotions compared to peers. Karreman, de Haas, van Tuijl, van Aken, and Deković (2010) suggested that negative parenting attitudes may result in fear and internalizing behavior problems. Öneren Şendil (2010) found a positive relation between anger-aggressiveness and

children's negative reactive behavior. Kim and Kochanska (2012) observed that children with responsive mothers exhibited less externalizing problem behavior compared to difficult-reactive children claiming that meeting children's needs timely would have a protective function for reactive and problem behaviors.

Conclusion and Recommendations

The results showed that girls, 6-year-olds (60-72 months) and children with working mothers were more persistent compared to boys, 5-year-olds and children with unemployed mothers, respectively. The findings indicated a negative and significant relationship between persistence and overprotective parenting attitudes and a positive and significant relationship between reactivity and permissive and overprotective parenting attitudes. Parenting attitudes explained %5 and %7 of the variation in children's persistent and reactive behavior, respectively. Overprotective and permissive parenting attitudes significantly predicted persistence and reactivity, respectively.

The current study has some limitations. The data were collected only from mothers. Future research may include data from fathers. In order to better understand the nature of the relationship between parenting attitudes and children's persistence and reactivity, longitudinal or experimental research designs where mothers are trained for parenting attitudes might make significant contributions to the literature. It should be noted that parenting attitudes are of vital importance to foster children's development, as they seem to affect children's persistence and reactivity either positively or negatively.

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