BOĞAZİÇİ UNIVERSITY JOURNAL OF EDUCATION
2022, VOL. 39, NO. 1
https://doi.org/10.52597/buje.1105041

The Mediating Effects of Child Mastery Motivation on the Relationship Between Parenting and Children's Readiness to Learn: A Structural Equation Analysis

Ayşegül Metindoğan

Abstract

The focus of the study was to explore how parenting and children's motivation to learn would influence preschool children's readiness to learn at school. Two-hundred-thirty-two mother-father dyads reported on their socioeconomic status (SES), child rearing practices and perceptions of their preschool age children's mastery motivation (gross-motor persistence, object persistence, social symbolic persistence, and mastery pleasure). The preschool teachers reported on children's readiness measured by five domains (physical well-being, emotional maturation, social competence, language and cognitive competence and communication and general knowledge) and children's mastery motivation. Structural equation modeling (SEM) analyses revealed that mastery motivation in children was a significant and a positive predictor of children's school readiness; and the effects of parenting was mediated by mastery motivation.

Keywords: Mastery motivation, school readiness, parenting practices, mediation model, preschool children

Article info

Received: 18.04.2022
Revised:20.06.2022
Accepted:27.07.2022
Published online:08.08.2022

Introduction

Since the establishment of its republic in 1923, Turkey has been going through major and dramatic changes in its policies concerning national education with ministers serving their terms claiming that their major goal was to improve the quality of education. Within the overall framework of education, early childhood education, also referred to as preschool education in Turkey, which is not mandatory, there appears to be lack of standardized care, consistency and widespread quality, as well as access privileges currently, has been going through some major changes since 1960s (Aksoy & Eren Deniz, 2018; Özgünlü & Metindoğan, in press; Saklan, & Erginer, 2016). According to Aksoy and Eren Deniz (2018) the law, that was passed in 1973, laid out the foundation of national early childhood education policies including its target age group, purpose, and its goals to achieve for children. Specifically speaking, the aims were highlighted as ensuring "children develop physically, mentally, and emotionally; that they acquire good habits; that they are prepared for primary education; that a common environment of upbringing is provided for children who come from

Boğaziçi University, Department of Primary Education, ametindogan@boun.edu.tr, ORCID: 0000-0003-3704-2485

disadvantaged backgrounds; and that children speak Turkish properly" (p.114). Preschool education then was placed in kindergarten classrooms within elementary schools, independent preschools of private and public institutions.

In the year 2011, Turkish National Education went through another wave of some major changes within a few months without prior preparation of the schools or the teachers. Consequently, age for school entry was dropped down to 60 months the following school year (Kartal, 2013). Up until that time, there had been efforts to make kindergarten education mandatory for the entire nation for children to start schools ready to learn. With this change however, the plans to make kindergarten education nationwide was put on a hold as the children at the kindergarten age then was being accepted to first grade classrooms. However, there were many challenges faced by the children, parents, and the teachers.

Despite the assumption that children who start school at 60 months were ready to start school at such young ages, these children were not ready and attention and cognitive competence were major challenges faced by these children (Kapçı et al., 2013). Moreover, others found that these children, who skipped kindergarten and started first grade were not ready for school. When these children started school, they had challenges with fine motor skills, physical development, attention, focus, concentration, memory, language and communication skills, and following classroom routines just to list a few, compared to their classmates who had started school older (Kahramanoğlu et al., 2014). When these challenges were expressed by teachers and parents alike, another change was implemented and the mandatory age for school enrollment was now 66 months and parents were allowed to wait until their children were 72 months old (Kapçı et al., 2013). This action was more like reestablishing the old rule that the mandatory school entry age was 72 months. While the focus was on changing the school entry age, perhaps with a hope to get kids start school ready or to improve the quality of education, the efforts to make kindergarten education available for all were put on a hold. As of now, although Ministry of National Education (MoNE) has been announcing that there are efforts to make kindergarten education mandatory nationwide, and some pilot cities have implemented the change, mandatory early education is not in place. Meanwhile, the content of the early childhood education (ECE) curriculum was renewed, and new curriculum books were prepared in 2013 (Okul Öncesi Eğitim Programı [Preschool Education Program], 2013), in another attempt to improve quality of early childhood education. It is still unknown; however, how young children will prepare for formal schools and how older children will have better school achievement and score better on international tests such as PISA on which Turkish children have been scoring poorly (Gür et al., 2012). To sum up, although national educational policies seem to lack a more comprehensive approach to educating its youngsters and preparing them for formal schooling, a need to addresses the interconnectedness of familial, school and child related factors remain and that family systems and functioning play a key role in children's school readiness (Turnbull et al., 2022). Thus, this study focuses on exploring how within a family system, parenting styles, authoritative (democratic) and authoritarian (strict), predict children's school readiness via their effects on children's internal motivation to learn and experience new challenges.

The Relationship among Parenting Styles, Mastery Motivation and School Readiness

The issue of preparing children for school in the early childhood years is a world-wide phenomenon and has been receiving considerable attention (Welsh et al., 2010). Understandably, the concern for early development and education comes from the knowledge we have acquired in the field that early childhood experiences are very important predictors of present and future well-being, including school readiness, earning and later school achievement (see Bornstein et al., 2003; Fox & Geddes, 2016; Pianta et al., 2009; Welsh et al., 2010; Winter, & Kelley, 2008). Specifically, it has been argued that early years are critical for young children's mental development and will pave the way to future learning and development (Welsh et al., 2010). Research shows that when children complete early childhood education ready to learn, they will start primary school with a great advantage and will have significantly better chances to have successful academic life (Pan et al., 2019). This is important because academic success seems to be persistent throughout one's educational life. Researchers also conclude that children' first grade achievement scores would continue to be similar to their scores during middle and high school years suggesting that achievement is rather stable all through compulsory schooling (Rimfeld et al., 2018). All in all, the evidence suggests that early childhood period in general, and early childhood education, matters; because, although human development is a continuum, early childhood period is especially decisive for brain development, and to establish the foundations of emotional, behavioral (Osher et al., 2020), and even educational skills that will set the tone for future development and learning.

Children's readiness for school is important for children's overall well-being as well. We can argue that a comprehensive approach to children's well-being includes absence of problem behaviors, presence of positive behaviors, preventing problems from occurring, providing early intervention and opportunities to combat the limits set by the context and the genes (Buehler, 2020). Correspondingly, we can cogitate that supporting children's readiness to learn is both a preventive measure, as it helps combat school failure, and a supportive measure as it can contribute to future academic success. In fact, school failure, one of the major threats to children's well-being (Santor et al., 2020) is one of the problems children of all ages face and a major concern for educators, policy makers, and parents. When we look at factors that prevent school failure, we see, among many others, supporting children's motivation to learn and early cognitive development are important (Squires & Kefallinou, 2019).

While preparing children for school has been a focus of interest, what constitutes readiness has had various definitions. In the initial stages of school readiness research, because cognitive development was considered to be the primary factor influencing a child's school readiness, researchers focused on children's intelligence, reading, or delaying school entry. (Carlton, 1999; Carlton & Winsler, 1999; Linnenbrink & Pintrich 2002; Welsh et al., 2010). Although cognitive development is an important

element in school readiness, a focus solely on cognition is misleading insofar as it neglects such factors as parenting, and children's motivation to learn. According to Linnenbrink and Pintrich (2002), only after the 1980s researchers began to focus on motivation as a factor influencing child achievement and started integrating motivation and cognition in their research. Then in the 1990s, some researchers sought to identify motivational dynamics as possible factors influencing preschool and kindergarten age children's achievement (Eccles, 1993; Carlton, 1999; Carlton & Winsler, 1999). In more recent times, researchers are showing interest in exploring motivation as a factor influencing young children's readiness to learn (Fantuzzo et al., 2004; Henrich et al., 2005; Howse et al., 2003; MacPhee et al., 2018; Özbey & Gürler, 2019).

In broader terms, mastery motivation can be defined as young children's internal desire to explore and influence their environment without expecting a reward from others around them (Barrett-Morgan, 1995; Harter, 1992a; Harter, 1992b; Jennings & Dietz, 2003). This internal desire within mastery motivation in young children refers to their desire to learn and engage in "self-directed" behaviors without relying on rewards provided from outside forces, to have persistence to achieve challenging tasks or skills for intrinsic pleasures (Jennings & Dietz, 2003; Morgan et al., 1995; Messer, 1993). Moreover, children with higher levels of mastery motivation would prefer challenge, they would show persistence in their explorations when faced with challenging tasks that are appropriate for their development and would show interest and engage with people and materials that are provided for them to play and explore in their environment (Busch-Rossnagel &Morgan, 2013; MacPhee et al., 2018; MacTurk & Morgan, 1995; MacTurk et al., 1995; Morgan et al., 1995; Turner & Johnson, 2003). Considering that starting first grade is a challenging new experience that requires exploration and persistence, mastery motivation becomes one of the key processes for their adjustment to school and succeed (Fantuzzo et al., 2004; MacPhee et al., 2018). Furthermore, mastery motivation is not set by nature and there is great room for parents to interfere and to influence unique mastery motivation profiles their children will have, especially with their child rearing styles (MacPhee et al., 2018).

Baumrind (1967) studied the relationship between preschool children's competence and parenting attitudes and formulated parenting styles that are based on parenting practices that either hinder or support children's competence. Some of these behaviors were control, reasoning to obtain compliance, encouraging verbal give and take, use of coercive power without reason, warmth, strictness, demand for obedience, consistency, directiveness, communication. She concluded that parents who were authoritative in style (use of high control, responsiveness, reasoning, warmth and communication) had more competent children than parents who were more authoritarian (use of high control, strictness, coercive power and demand for obedience) and parents who were permissive (warmth, no demand and control). Later studies concluded that parenting styles and practices affect children's social, emotional and cognitive development (Baumrind, & Black, 1967; Bronfenbrenner, 1986; Connell & Prinz, 2002; Dornbusch et al., 1987, Fagot, 1978; Fagot & Hagan, 1991; Fung, 2022; McGillicuddy-De Lisi, 1996; Pinquart, 2016; Sigel & McGillicuddy-De Lisi, 2002). It is often found that while authoritative parenting is more advantageous, authoritarian parenting may

present some challenges for child outcomes (Pinquart, 2016; Shumow et al., 1998). Although permissive parenting seems to be associated more with behavioral problems and lack of school success across cultures (Baumrind, 1966, 1967, 1968, 1993; Durkin, 1995) the effect authoritarian parenting has on children is debated to this date (De Oliveira, 2015). While some suggest that in cultures where obedience is expected are more collectivistic, the negative effects of authoritarian parenting on children's achievement diminish (Chao, 2001), others found that culture or individualism-collectivism has no effects (De Oliveira, 2015). Studies that focus on the effects of parenting on mastery motivation show that some of the parenting behaviors that support mastery motivation are care, warmth, support, providing stimulating experiences, responsiveness, autonomy support and scaffolding (Fung, 2022; Józsa et al., 2019; MacPhee et al., 2018) which seem to coincide with authoritative parenting. Whereas, highly controlling parenting, strictness, not providing autonomy support (MacPhee et al., 2018; Moorman & Pomerants, 2008) that are associated with authoritarian parenting seem to be less optimal for the development of mastery motivation.

In conclusion, exploring how parenting influences on children's readiness to learn is mediated by children's mastery motivation would allow for an exploration of "a complex, ongoing, and dialectical process" in which children's maturation and social and cultural environment interact (Carlton, 1999, p.9). In order to better understand these processes for early childhood school readiness, current research explored a model that focused on personal motivation and parenting. Both of these factors, familial and personal, have been separately linked in past studies (Carlton, 1999; McGroder, 2000; Raver et al., 2007; Turner & Johnson, 2003; Welsh et al., 2010) to school performance and school readiness in children. Furthermore, there is some research that combined mastery motivation and parenting in predicting school readiness in more advantaged families and even fewer studies with low-income families (MacPhee et al., 2018; Moorman & Pomerantz, 2008). However, studies that connect parenting practices, mastery motivation and children's readiness to learn seems to be lacking particularly those that are in different cultural contexts. Finally, even though traditionally parenting styles research include permissive, ignoring or neglectful parenting; such parenting practices were excluded in the present study. Primary reason for this was that the goal in the study was to explore the effects of types of involvement exhibited by parents within their parenting styles, not the lack of involvement as permissive or neglectful parents seems to often exhibit in their parenting styles.

As discussed earlier, research indicates that children's academic achievement is strongly influenced by factors related to the family and the child. Thus, main objective for the present study was to test a model demonstrating pathways to children's school readiness. These pathways are family background (income and education of the parents), parenting styles (strict and democratic) and children's mastery motivation. It is expected that children's mastery motivation would mediate the relationship between parenting and children's readiness to learn in five domains. In the present study, school readiness is seen as a multifaceted phenomenon including cognitive skills, physical well-being, language and reading skills, emotional well-being and social skills, and behavioral adjustment. One of the primary assumptions guiding this perspective is that

children who are well-developed in these areas will have an advantage in school over those who have difficulty in one or more of these areas. Thus, testing the model will first consist of testing a series of structural equation models examining pathways to each of the five domains of school readiness: Physical readiness, emotional maturation, social competence, language and cognitive competence and communication, and general knowledge. In these models, the pathways that originate in a family setting are considered to be parenting dimensions that are called strict and democratic parenting. Then the mediating variable, mastery motivation will be introduced into the model. This model assumed that structural variables such as parental income and education would influence parenting practices and the parenting practices in turn would influence child mastery motivation and this would finally inform school readiness in five different domains.

It is expected that higher levels of authoritative parenting would be associated with higher levels of mastery motivation and school readiness among Turkish children. On the other hand, authoritarian parenting is expected to be negatively associated with mastery motivation and school readiness. Finally, it is expected that children's mastery motivation would mediate the relationship between parenting styles and children's school readiness in all five domains.

Method

Participants

As data were collected as part of a doctoral dissertation in a major metropolitan province in Turkey (Metindogan-Wise, 2007) ethics approval was received from Syracuse University Institutional Review Board (01.01.2004-IRB041) and the Ministry Education of Turkey. After the approval received from the ministry, preschools as well as elementary schools with preschool classrooms in Ankara metropolitan areas were contacted to ask whether they would be willing to participate in the present study. Once the schools agreed, preschool teachers were asked to contact the parents to invite them to participate in the study and to deliver the questionnaire packets. Parents returned the completed and sealed envelopes to the teachers. There were 234 mother-father dyads of preschool age children reporting about their parenting practices, children's mastery motivation and demographic information. The mothers ranged in age from 20.7 to 49 years with an average age of 32.8 years (*SD* = 4.98). Education level was asked using a Likert Scale, 1 referring to uneducated to 6 referring to post graduate degrees. The modal mother had a high school degree and of the remaining mothers, 31% had less than high school education, 39% had high school, and 27% had higher education; 61% of the mothers were homemakers while only 34% reported holding a job. The rest (5%) were either currently unemployed, retired or did not report their work status.

The fathers' ages ranged from 25.5 to 55.0 years with an average age of 36.6 (*SD* = 5.34). The average father had a high school degree and had completed some college work (*SD* = 1.44). Fathers' education levels ranged from less than high school

(31%), high school (33%) to higher education (34%) with 4% holding graduate degrees. The majority of the fathers were employed (88%) while the rest were currently unemployed or retired (2%). The average family income was in the range of 951-1,110 Turkish Lira, monthly, equaling $717.36 – $829.75 at the time of data collection.

The average age of the target preschool child was 5.6 years (*SD* = .39) with the ages ranging from 4.4 years to 6.5 years; only 1.7% of the children were reported to have minor physical handicaps. One-hundred fourteen of the children were girls (49%) and one-hundred twenty of them were boys (52%). Demographic information may be found in Table 1.

Table 1

Sociodemographic Characteristics of Parents

		N	Min	Max	Mean	*SD*
Mothers' Education		232	1.00	8.00	2.93	1.46
Fathers' Education		227	1.00	6.00	3.15	1.45
Mothers' Age		204	20.74	49.02	32.73	5.27
Fathers' Age		205	25.54	55.03	36.51	5.62
Income		236	1.00	14.00	7.37	3.79
Child Age	Boys	121	4.36	6.46	5.59	.42
	Girls	113	4.44	6.38	5.60	.35

Measurements

Socio-economic Status and Living Arrangements

Parents provided information about their socio-economic status, (income and their educational background) living and child-care arrangements, including whether they lived with extended family, who the primary caregiver of the child was and whether child attended day-care. These were asked by close-ended questions that listed possible alternatives and that participants could also respond in writing if the listed choice selections were not inclusive of their responses.

Child Rearing Practices

Child rearing practices were measured using a revised version of Child Rearing Practices Q-Sort-Revised (CRPQ-R, Block, 1965; Roberts, 1999). The original questionnaire had 99 items and measures the dimensions of parenting such as cool/distant, conflict, encourages autonomy, protective/indulgent, discourages emotional expression. Examination of the reliability estimates (Cronbach alphas; Cronbach, 1954) indicated that the overall scale was reliable, with alphas = .834 for mothers, and .874 for fathers. After conducting principal-components factor analysis with a two-factor solution (Dekovic et al., 1991), final authoritative parenting consisted of 17 items and

the authoritarian parenting consisted of 10 items both for mothers and fathers. The reliability analyses using Cronbach alphas for the final factors revealed good to moderate internal consistency with the alphas ranging for authoritative mothering = .80, authoritative fathering = .88, authoritarian mothering = .61, and authoritarian fathering = .60.

Child Mastery Motivation

In order to measure children's mastery motivation, parents and teachers were asked to report on Dimensions of Mastery Questionnaire (DMQ; MacTurk et al., 1995). The DMQ consists of four different subscales yielding four composite scores including persistence, total mastery pleasure, general competence, and negative reaction to failure. Examination of the reliability estimates using Cronbach alphas indicated that the overall scale was very reliable with an alpha of .90 for teachers, of .85 for mothers, and, of .87 for fathers.

School Readiness

The "Early Development Instrument: A Population-based Measure for Communities" (EDI) is used to assess children's development (Janus & Offord, 2003a). This 120-item scale assesses both "the outcome of early years" and "children's readiness to learn at school" (Janus & Offord, 2003b). This teacher completed scale consists of 120 items and five sub-scales measuring physical health and well-being, social competence, emotional maturity, language and cognitive development, communication skills and general knowledge. Cronbach's Alpha reliability analyses were good and revealed Cronbach's alphas of .80 for physical health and well-being, .98 for social competence, .92 for emotional maturity, .96 for language and cognitive development, and .94 for communication skills and general knowledge.

Questionnaires that were assessing child mastery motivation, children's school readiness to learn and parenting styles were originally in English. In order to adapt these questionnaires into Turkish, translation and back translation approach was implemented. After this process was complete, two doctoral students who were native in Turkish and fluent in English checked the translations and agreed on the final forms. Finally, two Turkish primary school teachers read and commented on the Turkish translations for clarity and cultural appropriateness for the final forms to be revised. Because of time limitations, an independent pilot study could not be implemented. However, as the data were collected, data were checked for reliability to make sure the final data could be reliable.

Results

Child Care and Living Arrangements

Families that included both the mothers and fathers were included in the study and they were asked about their caregiving responsibilities for their preschool aged child. Of those mothers, 82% indicated that they were the primary caregivers of their children and only 11% reported both mothers and fathers were equally responsible for childcare of their children. Approximately 7% of the mothers reported that some other family member was a primary caregiver. In contrast, 34% of the fathers did not report anyone as a primary caregiver. Out of the remaining 66% of fathers, over half (58%) reported that mothers were the primary caregivers and 6% reported that both mothers and fathers were primary caregivers of their children.

Parenting Styles

In order to examine whether Turkish parents employed more authoritative or authoritarian parenting styles while interacting with their preschool-age children, two-way repeated measures ANOVA (parent sex X parenting style) analyses were conducted. Results indicated that sex of the parent, did not have an effect on the type of parenting style Turkish parents employed, $F(1, 233) = 2.27$, $p > .05$. This suggested that mothers and fathers were similar in their parenting styles. Results however, revealed that there was a significant parenting style main effect, indicating that mothers and fathers both differed in their parenting styles, $F(1, 233) = 1203.77$, $p < .001$. Examination of the parenting style main effect revealed that both mothers and fathers were more authoritative than they were authoritative (See Table 2).

Table 2

Mean Scores of Maternal and Paternal Parenting Styles

	Mean	*N*	*SD*	*SE*
Authoritative Mothering	5.37	234	.41	.03
Authoritarian Mothering	3.54	234	.71	.05
Authoritative Fathering	5.25	234	.59	.04
Authoritarian Fathering	3.50	234	.70	.05

Structural Equation Modeling

Structural equation modeling (SEM) that allows to “create single latent constructs with multiple indicators” (Sabatelli & Bartle, 1995, p.1034) was used in the analyses. Maximum likelihood estimates that were obtained using Amos 4.0 software (Arbuckle, 1999) were used. Consistent with Arbuckle and Wothke’s (1999) advice, a critical ratio

(C.R.) of 1.96 ($p < .05$) and higher was considered to be significant. Because the analysis of gender differences did not reveal multivariate effects of child gender, the models were computed for the whole sample. According to several authors (e.g., Byrne, 2000; Civelek, 2018; Marcoulides & Schumacker, 2001), for perfect model fit, GFI, AGFI, and CFI values should be 1, however, values above .9 are considered to indicate good model fit. Similarly, while an RMSEA value of 0 indicated that the data fit the model very well, a value of less than .05 is thought to indicate an adequate model fit although values as high as .08 are reported to indicate adequate model fit (Byrne, 2000). Additionally, Chi-squares ($\chi 2$) and their associated degrees of freedom (*df*) were also used to determine the model fit; a non-significant $\chi 2$ is needed to be able to conclude that the hypothesized model and the perfect fit are not different. These goodness of fit estimates are used commonly in the literature to test for model fit (Byrne, 2000; Civelek, 2018; Marcoulides & Schumacker, 2001).

Variables in SEM Analyses

Teacher ratings were used to create the variables for each of the five domains of school readiness (physical health and well-being, social competence, emotional maturation, language and cognitive competence, and communication and general knowledge).

The mastery motivation variables for each domain were used as latent variables. These latent variables were informed by domain specific persistence scores and mastery pleasure scores. Thus, physical mastery motivation was informed by gross motor persistence and mastery pleasure; social mastery motivation as a latent variable was informed by social-symbolic persistence and mastery pleasure; and finally, mastery motivation for cognition and, language and communication and general knowledge was informed by object persistence, social symbolic persistence and mastery pleasure. Mastery pleasure scores consisted of composite scores of reports from mothers, fathers, and teachers. Persistence scores for each mastery motivation domain were also composite scores of reports from mothers, fathers, and teachers. Unlike results for school readiness, for mastery motivation variables, teachers and parents were both considered to provide unique sources of information regarding mastery motivation of children due to their observations of children in different settings (Turner & Johnson, 2003). For that reason, based on what Turner and Johnson (2003) suggested, three composite scores that measured different aspects of children's mastery motivation: physical mastery motivation, social mastery motivation, and mastery motivation for cognition and general knowledge were computed.

Model Testing

In order to analyze the hypothesized models, the links among the constructs in the models were explored and confirmed using Pearson-r correlations (Conger et al., 2002; Scaramella et al., 1998). To test the model, first the full model of school readiness for each of the five domains was tested, and then specific mastery motivation variables as mediating variables between parenting (SES and parenting styles) and school readiness in each domain were tested. Next, the non-significant paths were dropped, and the

revised model were recomputed (Civelek, 2018; Pedhazur, 1997; Turner & Johnson, 2003). The final step of mediation testing included computing the models without the specific mastery motivation variable for each domain to estimate the model fit with and without the mediating variable in the model. According to Baron and Kenny (1986), for a true mediation effect to be present, the direct relationship between the exogenous variables (parenting styles, income, and education) and the outcome variables (school readiness variables) need to drop down or be non-significant after the introduction of mediating variables. Consistent with what Baron and Kenny (1986) and Kenny (2006) recommend, Sobel test (Sobel, 1982) was used as an additional testing to assess whether the mediation effect observed in the data were significant.

Model for Physical Readiness for School

Mothers

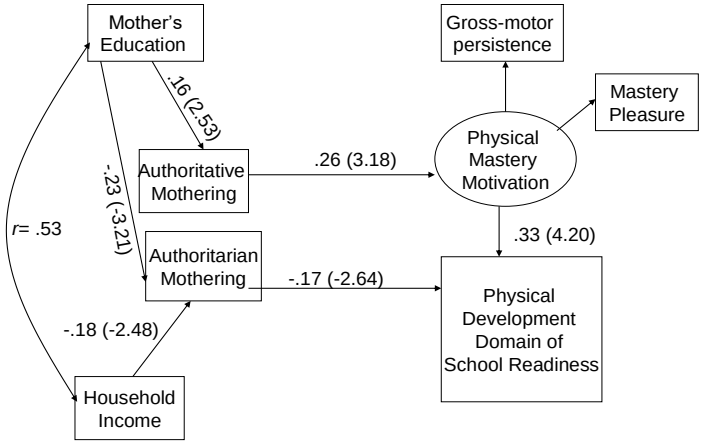
Having established the links between maternal education, income and parenting styles for mothers, the latent variable of physical mastery motivation was introduced into the model. In the model, authoritative mothering was a significant predictor of mastery motivation, β = .20, C.R. = 1.95, indicating higher levels of authoritative mothering were associated with higher levels of mastery motivation. No other variable was associated with mastery motivation. The model, however, explained only 6% of the variance. Examination of goodness of fit statistics indicated that the model fit the data well, $\chi 2$ = 5.52, *df* = 5, *p* = .36 (*ns*); RMSEA = .02, GFI = .99; AGFI = .96; CFI = 1.00.

After fixing the non-significant pathways to 0 (zero) and introducing the outcome variable, physical readiness for school, the results indicated that authoritative mothering, β = .26, C.R. = 3.18, continued to be significantly and positively associated with physical mastery motivation. The strength of the association, however, increased. No other variable was associated with physical mastery motivation. Physical mastery motivation was significantly and positively associated with physical health and well-being, β = .33, C.R. = 4.20. There was a direct and a negative association between authoritarian mothering and physical health and well-being, β = -.17, C.R. = -2.64. This model explained 16% of the variance in physical health and well-being. Examination of goodness of fit statistics indicated that the model fit the data well, $\chi 2$ = 8.16, *df* = 9, *p* = .52 (*ns*); RMSEA = .00, GFI = . 99; AGFI = .97; CFI = 1.00.

After dropping mastery motivation (mediating variable) from the model, results indicated that the strength of the relationship between authoritarian mothering and physical readiness had increased slightly, β = -.19, C.R. = -2.72. Authoritative mothering was not related to physical readiness for school suggesting an indirect effect of authoritative mothering through physical mastery motivation. The model without physical mastery motivation only explained 6% of the variance in physical readiness for school. The model still fit the data well, $\chi 2$ = .68, *df* = 2, *p* = .71 (*ns*); RMSEA = .00, GFI = .1.00; AGFI = .99; CFI = 1.00. Sobel's test showed that there was an indirect effect of authoritative mothering on physical health and well-being of children mediated by physical mastery motivation, *Z* = 2.39, *p* < .05 (See Figure 1).

Figure 1

Mothers' Trimmed Child Mastery Motivation Model for Physical Readiness (Standardized Regression Coefficients with Critical Ratios)



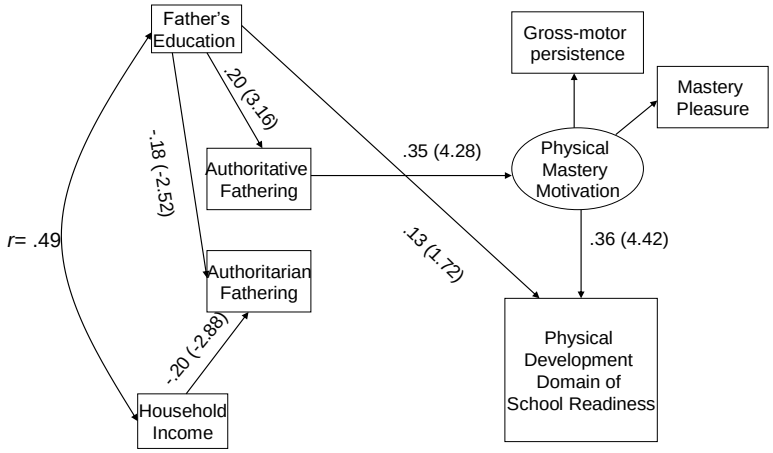
Fathers

In the model examining the effects of fathering (authoritative and authoritarian), parental income and fathers' education on physical mastery motivation, authoritative fathering was significantly associated with physical mastery motivation, β = .36, C.R. = 4.14. No other variables were associated with physical mastery motivation and the model explained 13% of the total variance in physical mastery motivation. The model fit the data well, $\chi 2 = 3.91$, $df = 5$, $p = .56$ (*ns*); RMSEA = .00, GFI = .99; AGFI = .98; CFI = 1.00.

After fixing the non-significant paths to zero, and including physical health and well-being in the model, physical mastery motivation was significantly and positively associated with physical health and well-being, β = .36, C.R. = 4.42. A slight increase in the association between authoritative fathering and physical master y motivation was also observed. The model explained 15% of the variance. The model fit the data well, $\chi 2 = 4.81$, $df = 9$, $p = .85$ (*ns*); RMSEA = .00, GFI = .99; AGFI = .98; CFI = 1.00. Finally, after dropping the mediating variable and testing the model, none of the variables was associated with physical health and well-being and the model explained only 3% of the variance. The model fit the data well, $\chi 2 = .27$, $df = 2$, $p = .88$ (*ns*); RMSEA = .00, GFI = 1.00; AGFI = 1.00; CFI = 1.00. The result of the Sobel's test revealed that there was in fact an indirect effect, $Z = 3.08$, $p < .01$ (See Figure 2).

Figure 2

Fathers*' Trimmed Child Mastery Motivation Model for Physical Readiness (Standardized Regression Coefficients with Critical Ratios)*



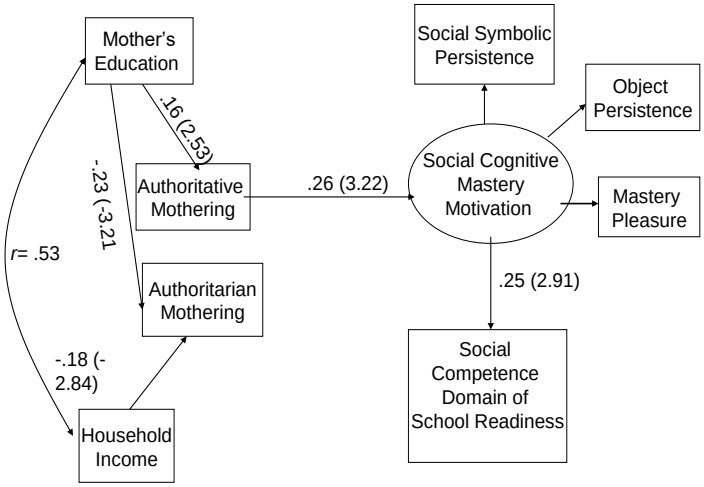
Model for Social Competence

Mothers

Results indicated that authoritative mothering was positively and significantly associated with social mastery motivation, β = .25, C.R. = 2.52, with model explaining 7% of the variance. The model fit the data well, $\chi 2 = 6.91$, $df = 5$, $p = .23$ (*ns*); RMSEA = .04, GFI = .99; AGFI = .96; CFI = .99. After fixing non-significant paths to zero and introducing the outcome variable, results indicated that social mastery motivation was positively associated with social competence, β = .25, C.R. = 2.91. Out of the remaining predicting variables, none was associated with social competence. The strength of the relationship between authoritative mothering and social mastery motivation increased, β = .26, C.R. = 3.22. The model fit the data well, $\chi 2 = 10.74$, $df = 9$, $p = .30$ (*ns*); RMSEA = .03, GFI = .99; AGFI = .96; CFI = .99. Dropping social mastery motivation from the model revealed no significant relationship between the exogenous variables and the endogenous variable. Although dropping social mastery motivation did not result in a significant direct effect of authoritative mothering on social competence, Sobel's test revealed that there was in fact an indirect effect of authoritative mothering on social competence among Turkish children, $Z = 2.16$, $p < .05$ (See Figure 3).

Figure 3

Mothers' Trimmed Child Mastery Motivation Model for Social Competence (Standardized Regression Coefficients with Critical Ratios)



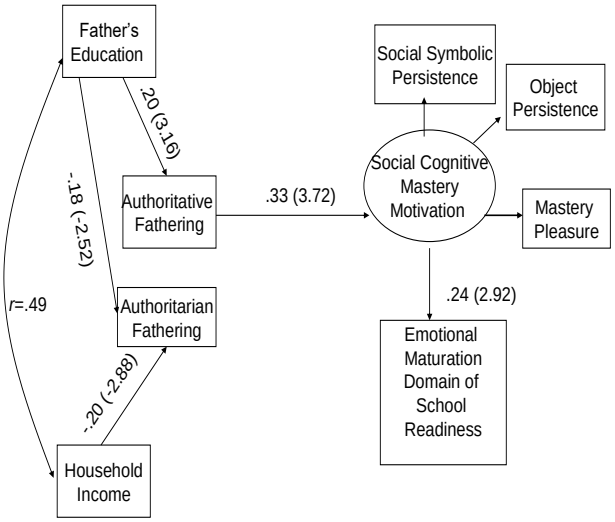
Fathers

Results indicated that fathers' authoritative fathering was significantly and positively related to social mastery motivation, β = .30, C.R. = 2.72. No other variable was related to social mastery motivation and the model explained 9% of the variance. Examination of model fit indices indicated that model fit the data well, $\chi 2$ = .24, *df* = 4, *p* = .66 (*ns*); RMSEA = .00, GFI = 1.00; AGFI = .98; CFI = 1.00. After fixing the non-significant paths to 0 (zero) and introducing the outcome variable into the model, results indicated that authoritarian fathering was significantly and positively related to social competence among Turkish preschool children, β = .15, C.R. = 2.26. Authoritative fathering was still significantly related to social mastery motivation, β = .31, C.R. = 3.45. A significant relationship between the mediating variable and the outcome variable was observed, β = .19, C.R. = 2.40. The whole model accounted for 6% of the variance and fit the data well, $\chi 2$ = 7.71, *df* = 9, *p* = .56 (*ns*); RMSEA = .00, GFI = .99; AGFI = .97; CFI = 1.00. Authoritarian fathering was still significantly and positively associated with social competence even after social mastery motivation was dropped from the model, β = .15, C.R. = 2.18. The model now accounted for only 3% of the variance although the model continued to fit the data well, $\chi 2$ = .12, *df* = 1, *p* = .73 (*ns*); RMSEA = .00, GFI = .1.00; AGFI = 1.00; CFI = 1.00. Sobel's test revealed that there was an indirect effect of authoritative fathering on social competence mediated by social mastery motivation,

$Z = 2.01$, $p < .05$. The effect of authoritarian fathering however was only a direct effect on social competence (See Figure 4).

Figure 4

Fathers' Trimmed Child Mastery Motivation Model for Social Competence (Standardized Regression Coefficients with Critical Ratios)



Model for Emotional Maturation Domain of School Readiness

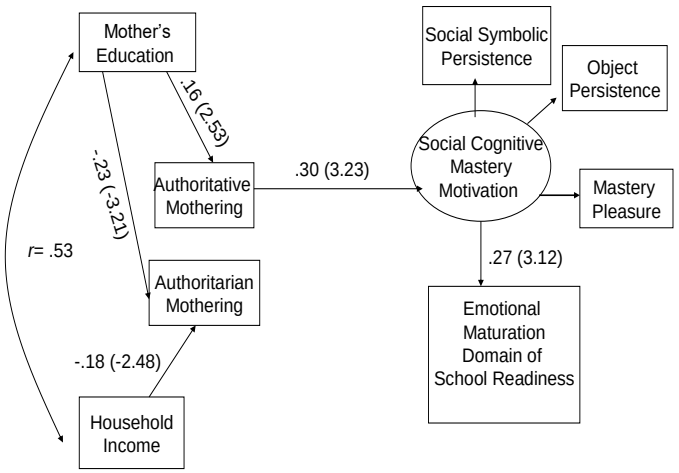
Mothers

Because the link between social-symbolic persistence and mothering variables was already established, non-significant pathways between authoritarian mothering and social-symbolic persistence, maternal education and social symbolic persistence, and income and social symbolic persistence were set to 0 (zero). Results indicated that social mastery motivation was positively and significantly related to the emotional maturation domain of school readiness, $\beta = .27$, C.R. = 3.12. The significant and positive link between authoritative mothering and social mastery motivation was still observed, $\beta = .26$, C.R. = 3.23. The model explained only 7% of the variance and the model fit the data well, $\chi 2 = 10.61$, $df = 9$, $p = .30$ (*ns*); RMSEA = .03, GFI = .99; AGFI = 96; CFI = .99. Dropping social mastery motivation from the model did not result in any significant relationships between the predictor variables and the outcome variable although the model fit the data well, $\chi 2 = 68$, $df = 2$, $p = .71$ (*ns*); RMSEA = .00, GFI = 1.00; AGFI = .99; CFI = 1.00. Sobel's test revealed that the indirect effect of

authoritative mothering on emotional maturation/competence through social mastery motivation was indeed significant, $Z = 2.24$, $p < .05$ (See Figure 5).

Figure 5

Mothers' Trimmed Child Mastery Motivation Model for Emotional Maturation (Standardized Regression Coefficients with Critical Ratios)

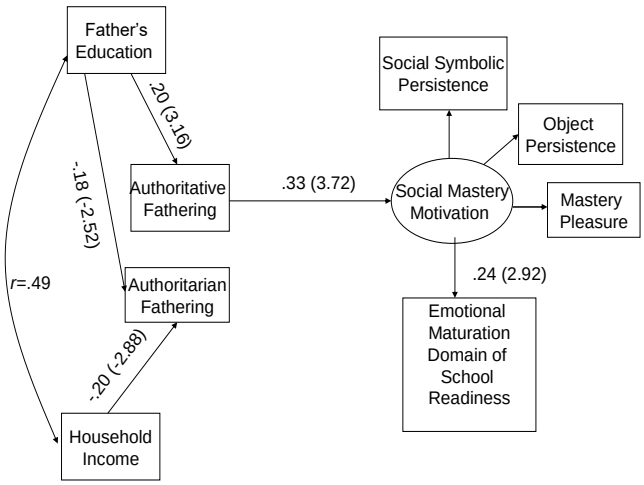


Fathers

Because the link between social-symbolic persistence and fathering variables was already established; the full model with fathering, social mastery motivation and emotional maturation was examined. Results revealed that authoritative fathering continued to be significantly associated with social mastery motivation, $\beta = .33$, C.R. = 3.72, and social mastery motivation was positively associated with emotional maturation & competence, $\beta = .24$, C.R. = 2.92. The model explained only 7% of the variance although the model fit the data well. $\chi 2 = 6.19$, $df = 5$, $p = .29$ (*ns*); RMSEA = .00, GFI = .99; AGFI = .97; CFI = 1.00. Dropping social mastery motivation from the model did not result in any significant relationships between the predictive variables and the outcome variable. Sobel's test examining the significance of mediating effect of social mastery motivation on emotional maturation & competence revealed that the indirect effect was in fact significant, $Z = 2.92$, $p < .05$ (See Figure 6).

Figure 6

Fathers' Trimmed Child Mastery Motivation Model for Emotional Maturation (Standardized Regression Coefficients with Critical Ratios)



Model for Language and Cognitive Domain of School Readiness

Mothers

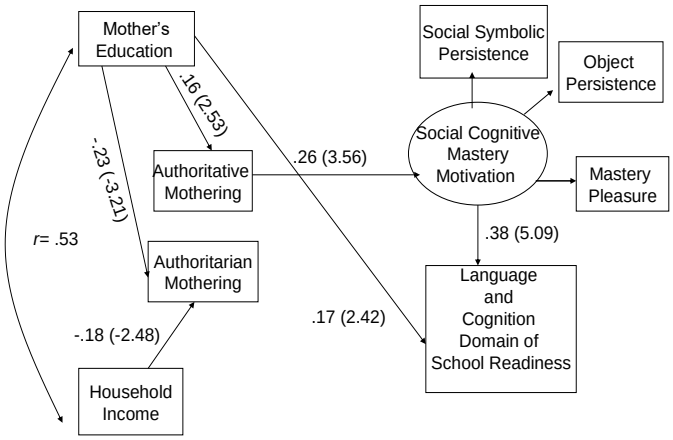
Results revealed a significant and positive relationship between authoritative mothering and mastery motivation, β = .26, C.R. = 3.55, and the model explained 8% of the variance in mastery motivation for cognition and general knowledge. Examination of the model fit indices indicated a good model fit, $\chi 2 = 8.97$, $df = 9$, $p = .44$ (*ns*); RMSEA = .00, GFI = .99; AGFI = .97; CFI = 1.00. After fixing the non-significant paths to 0 (zero), authoritative mothering was now significantly and positively associated with children's mastery motivation for cognition and general knowledge, β = .26, C.R. = 3.56. Maternal education was significantly and positively related to language and cognitive competence β = .17, C.R. = 2.42. The association between children's mastery motivation for cognition and general knowledge and language and cognitive competence was positive and significant, β = .38, C.R. = 5.09. The model accounted for 23% of the variance. Examination of the model fit indices indicated a good model fit, $\chi 2 = 10.98$, $df = 14$, $p = .69$ (*ns*); RMSEA = .00, GFI = .989; AGFI = .97; CFI = 1.00.

After dropping mastery motivation to examine mediation a positive association that approached conventional levels of significance between authoritative mothering and language and cognitive competence was obtained, β = .12, C.R. = 1.95. Similarly, authoritarian mothering also approached statistical significance, β = -.13, C.R. = -1.95. This association, however, was negative. Finally maternal education continued to be

positively associated with language and cognitive competence, β = .18, C.R. = 2.31. Testing the significance of the indirect effect of authoritative mothering using the Sobel's test revealed that the mediation was in fact significant, $Z = 2.90$, $p < .01$. Examination of the model fit indices indicated a good model fit, $\chi 2 = .68$, $df = 2$, $p = .71$ (*ns*); RMSEA = .00, GFI = 1.00; AGFI = .99; CFI = 1.00 (See Figure 7).

Figure 7

Mothers' Trimmed Child Mastery Motivation Model for Language and Cognition (Standardized Regression Coefficients with Critical Ratios)



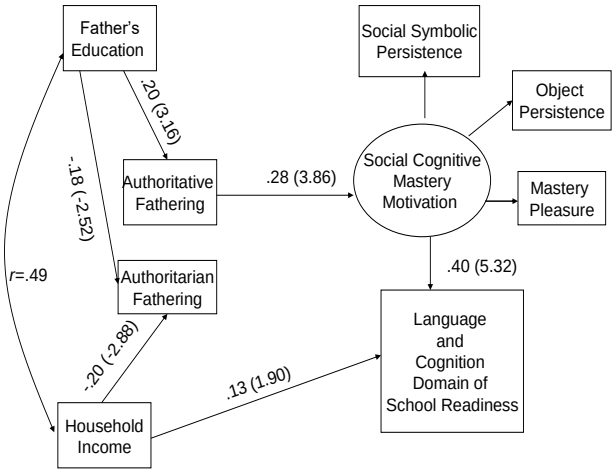
Fathers

Results revealed a significant and positive relationship between authoritative fathering and mastery motivation for cognition and general knowledge, β = .29, C.R. = 3.90. Examination of the model fit indices indicated a good model fit, $\chi 2 = 16.25$, $df = 10$, $p = .09$ (*ns*); RMSEA = .05, GFI = .98; AGFI = .95; CFI = .98. After dropping the non-significant pathways and including the language and cognitive competence in the model, the results revealed that paternal income was now closer to being significantly and positively related to language and cognitive competence, β = .13, C.R. = 1.90. Authoritative fathering continued to be related to mastery motivation for cognition and general knowledge, β = .28, C.R. = 3.86. Mastery motivation for cognition and general knowledge was also significantly and positively associated with language and social competence, β = .40, C.R. = 5.32. The model explained 21% of the variance in language and cognitive competence. Examination of the model fit indices indicated a good model fit, $\chi 2 = 17.66$, $df = 15$, $p = .28$ (*ns*); RMSEA = .03, GFI = .98; AGFI = .96; CFI = .99. Dropping the mediating variable, did not result in any significant association between the predictive variables and the outcome variable. Examination of Sobel statistics revealed that the indirect effect of authoritative fathering on language and cognitive

competence through mastery motivation was significant, $Z = 2.98$, $p < .01$ (See Figure 8).

Figure 8

Fathers' Trimmed Child Mastery Motivation Model for Language and Cognition (Standardized Regression Coefficients with Critical Ratios)



Model for Communication and General Knowledge

Mothers

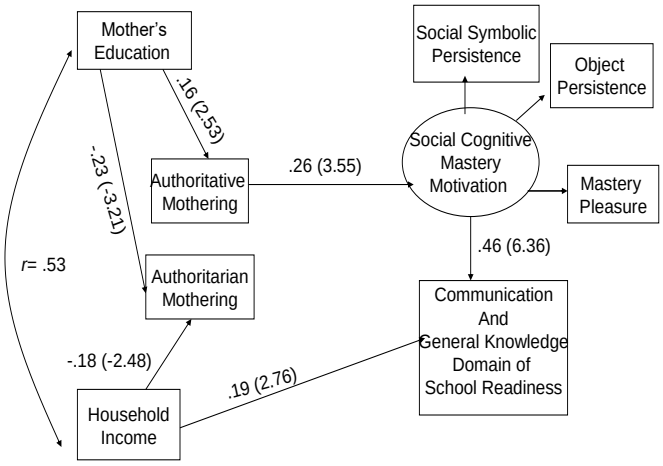
The results revealed a significant and positive relationship between authoritative mothering and mastery motivation, β = . 26, C.R. = 3.55. The model explained 8% of the variance in mastery motivation and fit the data well, $\chi 2 = 8.97$, $df = 9$, $p = .44$ (*ns*); RMSEA = .00, GFI = . 99; AGFI = .97; CFI = 1.00. After fixing the non-significant paths to 0 (zero) and introducing the outcome variable into the model, results revealed that income was significantly associated with child communication and general knowledge, β = 19, C.R. = 2.76. Mastery motivation was significantly and positively associated with communication and general knowledge, β = .46, C.R. = 6.35. Authoritative mothering was also significantly associated with communication and general knowledge. The model explained 31% of the variance in communication and general knowledge and fit the data well, $\chi 2 = 12.94$, $df = 15$, $p = .61$ (*ns*); RMSEA = .00, GFI = .99; AGFI = .97; CFI = 1.00.

Dropping the mediating variable, mastery motivation, resulted in a significant effect of authoritative mothering on communication and general knowledge, β = .13, C.R. = 2.07, suggesting a significant mediating effect of mastery motivation between authoritative mothering and communication and general knowledge. Testing the

significance of this mediating effect using Sobel statistics revealed that this indeed was a significant indirect effect, $Z = 3.09$, $p < .01$. Income was also significantly and positively associated with communication and general knowledge, β = .15, C.R. = 2.07, but the effect had less strength with the removal of mastery motivation from the model. This model without mastery motivation explained 10% of the variance in communication and general knowledge. The model fit the data well, $\chi 2 = .68$, $df = 2$, $p = .71$ (*ns*); RMSEA = .00, GFI = 1.00; AGFI = .99; CFI = 1.00 (See Figure 9).

Figure 9

Mothers' Trimmed Child Mastery Motivation Model for Communication and General Knowledge (Standardized Regression Coefficients with Critical Ratios



Fathers

My first step in analyzing the model of communication and general knowledge domain of school readiness of Turkish children was to examine the direct effects of parenting variables on mastery motivation. Results revealed that authoritative fathering was significantly and positively related to mastery motivation, β = .29, C.R. = 3.87. The model explained 8% of the variance in mastery motivation. The model fit the data well, $\chi 2 = 16.10$, $df = 9$, $p = .07$ (*ns*); RMSEA = .06, GFI = .98; AGFI = .94; CFI = 98.

After fixing non-significant paths to zero and adding the communication and general knowledge into the model, authoritative fathering and mastery motivation were still significantly related, β = .28, C.R. = 3.81. Mastery motivation for cognition and general knowledge was significantly and positively associated with communication and general knowledge, β = .47, C.R. = 6.20. Income was another variable that was significantly and positively associated with communication and general knowledge, β = .21, C.R. = 3.21. The model explained 31% of the variance in communication and

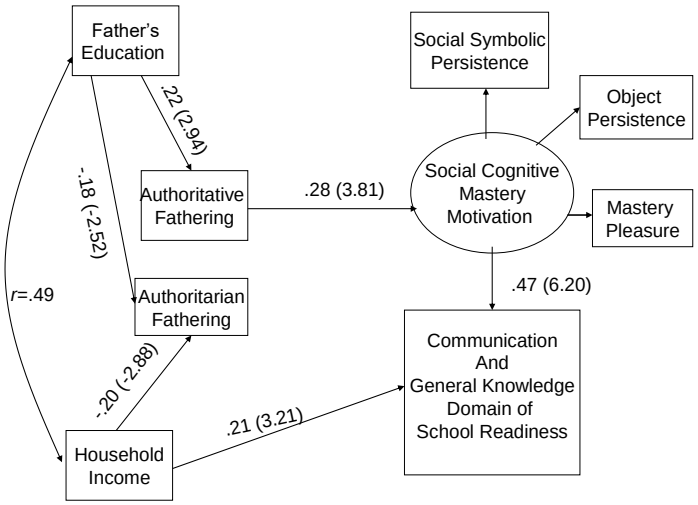
general knowledge and model fit the data well, $\chi 2 = 18.61$, $df = 14$, $p = .18$ (*ns*); RMSEA = .04, GFI = .98; AGFI = .95; CFI = .99.

When mastery motivation was dropped from the model, income continued to be significantly associated with communication and general knowledge, $\beta = .203$, C.R. = 2.80. Importantly, authoritative fathering was now significantly associated with communication and general knowledge, $\beta = .15$, C.R. = 2.41, suggesting a complete mediation effect of mastery motivation for cognition and general knowledge between authoritative fathering and communication and general knowledge. The Sobel test conducted to test the significance of this mediation effect revealed the mediation effect was indeed a significant one, $Z = 2.24$, $p < .01$. The model explained only 9% of the variance in communication and general knowledge without the mastery motivation for cognition and general knowledge and the model and fit the data well, $\chi 2 = .27$, $df = 2$, $p = .88$ (*ns*); RMSEA = .00, GFI = 1.00; AGFI = 1.00; CFI = 1.00.

In summary, in the domain of communication and general knowledge some similar effects for Turkish mothers and fathers were observed. For both mothers and fathers, again authoritative parenting had a significant effect on child communication and general knowledge. For communication and general knowledge, the mediating effects of mastery motivation for cognition and general knowledge seemed to be stronger and the effect was complete. A difference between mothers and fathers was that the income of mothers, but not fathers had a direct and a significant effect on communication and general knowledge of Turkish children (See Figure 10).

Figure 10

Fathers' Trimmed Child Mastery Motivation Model for Communication and General Knowledge (Standardized Regression Coefficients with Critical Ratios)



Discussion, Conclusions, and Implications

Results of this study suggested that authoritative practices of the parents resulted in children to be more motivated and more competent in all five domains of school readiness. Authoritarian mothering, although negatively associated with outcome variables, was not a significant predictor explaining children's school readiness directly or indirectly thorough mastery motivation. This is interesting because even though Turkish culture holds traditional elements, this finding was comparable to the findings from western cultures proposed by Baumrind (1966; 1967). And the findings that the relationship between authoritarian parenting and school readiness is negative seems to be different from Chao's (1994; 2001) findings with parents of Chinese descent. Authoritative parenting includes control similar to authoritarian parenting. However, authoritative parenting, unlike authoritarian parenting includes practices such as warmth and reasoning that could allow for control acts to be perceived as more concerned and caring. This could allow for such practices to be associated with competence. This result supports the "Family Change Model" proposed by Kagitcibasi (1996; 2006; 2007) that Turkish culture is more representative of a culture where there is a dialectic synthesis of East and West.

Findings revealed that both mothers' and fathers' authoritative parenting, but not authoritarian mothering or fathering, were significant and positive predictors of mastery motivation among Turkish preschool children. This is similar to the findings of existing research that when parenting and home environment are supportive, caring and demanding, children are better supported and motivated (MacPhee et al., 2018). Moreover, the findings also showed that both mothers' and fathers' education and income to an extent, were positive predictors of authoritative parenting and negative predictors of authoritarian parenting. It seems that parents who are better educated are more optimal in their parenting behaviors that lead children to be motivated to master. These findings support existing research that provides robust evidence that income and particularly parental education are significant predictors of numerous child developmental outcomes (Kotaman, 2018; Querido et al., 2002). It is possible that these parents stimulate their children better and provide developmentally appropriate challenges and encourage their children to explore creating a stimulating environment (MacPhee et al., 2018). It is reasonable to assume that parental income and education mean easier access to resources to provide for children. Thus, it would be important for educational policy makers to focus more on improving the skills of economically disadvantaged parents. Because parents of preschool age children go to schools and have contact with teachers more than parents of any other age group, it would be important for teachers to take advantage of these visitations to help improve the parenting skills of these parents (See Honig, 1975) such as helping parents to develop skills to reason and play with their children, stimulate them and allow them to explore their environment through scaffolding (Vygotsky, 1979).

Another important finding of the present study was that mastery motivation was a significant predictor of all five of the domains of school readiness. This finding

was consistent with other research examining the relationship between mastery motivation and academic success among preschool and older age groups (Cheung & McBride-Chang, 2008; Gottfried, 1985; Józsa et al., 2019; Linnenbrink & Pintrich, 2002; MacPhee et al., 2018; Özber & Gürler, 2019; Turner & Johnson, 2003). Present finding that mastery motivation was the most significant predictor of all five domains of school readiness supports the proposition that motivation is an essential resource for children to reach their potential (Paris et al., 2006). Based on this, we can conclude that one great pathway that goes to children's achievement starting in the home environment goes through mastery motivation.

The results of this research are interesting because even though the findings are in agreement with western literature on parenting that authoritative parenting is associated with positive child outcomes, the parental effects on child outcomes, in this case, school readiness, seem to go through the effects parents have on children's motivation to learn. Moreover, the effects of parental income and education seem to follow a path that goes through parents to mastery motivation and finally to children's readiness. As MacPhee et al. (2018) suggested, mastery motivation is "malleable" and that parents can help children to be better motivated to approach new challenges and have inner desires to learn. Specifically, findings of this research suggests that parental authoritative approaches such as reasoning with the child, expressing affection, playing with the child, encouraging the child to be more expressive and allowing child to take responsibilities are valuable for children to be motivated to master new and relatively challenging tasks. These types of interactions promote the child's internal motivation to be persistent in their interactions with social and physical world and get pleasure with mastering skills and as a result be competent in various areas of development and tackle the challenges of further schooling.

One important implication of the present study is that if teachers and parents want children to be successful, they need to make sure these children want to and love learning. One way both parents and teachers can accomplish this is by creating more democratic and supportive environments in which children are seen as active agents in their own lives. Allowing children to develop autonomy, providing children with more age-appropriate challenges and responsibilities as well as encouraging them to be more active learners are crucial. This way, it would become possible for children to experiment with their skills and learn new ones. Also, focusing on children's efforts rather than the products when they are working on a project could encourage children to be more persistent, hence allowing them to master the skill they are working on. It is important to note that Parent's educational involvement does not necessarily mean they need to teach their young children how to read or write or teaching them their numbers. Rather, at early ages, parents can be involved in their children's learning by understanding children's signs of frustration and joy during challenging tasks as well as how children react to failures and successes. These signs, correctly interpreted, can give valuable information for the development of mastery motivation and areas children need to be supported to develop internal motivation. When children are frustrated for example, when they fail to complete a task, rather than simply ignoring it, or getting upset with them, parents can implement proper guidance to adjust the level of difficulty

of the task and help children review the steps they are taking to solve the task and keep trying till children themselves are satisfied with the result. It is important to guide children to own their own learning process and to do it for themselves other than pleasing a parent. Similar approaches can be implemented by early childhood education teachers in classrooms. Furthermore, Turnbull et al. (2022) suggested that when families routinely play with their children, engage in art activities, read to them, and engage in community activities their children are more ready for school. Even though it is obvious that all these activities can be seen as crucial for motivation and learning, what needs to be noted is that these activities were family routines, meaning that they were part of a family life. Hence, it is important to create an atmosphere at home where learning is part of everyday activities, not something to be separated from daily routines.

Mastery motivation is a bridge between parenting style and children's academic achievement. Thus, teacher preparation programs, and the projects that are designed to educate parents and teachers about young children should emphasize that being involved in children's schooling and supporting children's education does not mean engaging only in traditional educational activities. Rather, empowering children, taking a whole child perspective, using daily activities, play and children's curiosity can all support children to be eager to learn and master their environment and experiences. We know that adults who employ mastery-oriented practices will help children to develop more positive attitudes toward their schooling (Pomerantz et al., 2006).

Although this study has shown that early mastery motivation is an important predictor for children's readiness to learn and parents play a significant role in children developing mastery motivation, there were still several limitations. Future research should focus more on identifying more specific daily activities parents practice at home, not just parenting styles and follow children throughout later school years. In addition to daily activities at home, parental goals and expectations, value they place on children's learning and development, and how they view their role in their children's learning can give better insight into parent related dynamics that influence mastery motivation and school readiness. Moreover, self-regulation is another important factor that received scholarly attention that affects children's readiness and achievement (See Blair & Diamond, 2008; Blair & Raver, 2015; Duncan, et al., 2018). Future research that explores the interaction between self-regulation and mastery motivation as well as family dynamics would help clarify our understanding of how parenting would influence children's inner resources that govern how children approach and cope with new challenges and experiences and how children's path to successful school experiences are paved. Furthermore, this study did not focus on any of the school related factors that could help children develop mastery motivation and be better prepared for formal schools. Thus, it is important future research that focuses on school related factors as well such as teacher-child interaction, teacher's efficacy skills and expectations, curriculum implemented at schools and material resources schools have. Finally, although including both mothers and fathers is a strength of the present study, the data were collected through self-report instruments. Future research that includes multiple approaches such as observations, interviews and focus groups can provide

valuable information on ways in which parents support children's development and learning.

References

Aksoy, N., & Eren Deniz, E. (2018). Early childhood education in neoliberal, religiously conservative times in Turkey. *Policy Futures in Education*, *16*(1), 108-123.

Arbuckle, J. (1999). *AMOS 4.0 user's guide*. Smallwaters Corporation.

Arbuckle, J., & Wothke, W. (1999). *AMOS 4 user's reference guide*. Smallwaters Corporation.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-1182.

Barrett, K. C., & Morgan, G. A. (1995). Continues and discontinues in mastery motivation during infancy and toddlerhood: A conceptualization and review. In. R. H. MacTurk & G. A. Morgan (Eds.), *Mastery motivation: Conceptual origins and applications* (pp. 57-93). Ablex.

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development, 37*(4), 887-907.

Baumrind, D. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. *Child Development, 38*(2), 291-327.

Baumrind, D. (1968). Strict vs. authoritative parental control. *Child Development, 38,* 255-272.

Baumrind, D. (1993). The average expectable environment is not good enough: A response to Scarr. *Child Development*, *64*(5), 1299-1317.

Baumrind, D., & Black, E. A. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. *Child Development, 38*(2), 291- 327.

Blair, C., & Diamond, A. (2008). Biological processes in prevention and intervention: Promotion of self-regulation and the prevention of early school failure. *Development and Psychopathology*, *20*, 899–911.

Blair, C., & Raver, C. C. (2015). School readiness and self-regulation: A developmental psychobiological approach. *Annual Review of Psychology*, *66*, 711-731.

Block, J. (1965). *The child-rearing practices report (CRPR): A set of Q items for the description of parental socialization attitudes and values*. Berkeley: Institute of Human Development, University of California.

Bornstein, M. H., Davidson, L., Keyes, C. L. M., & Moore, K. A. (Eds.). (2013). *Well-being: Positive development across the life course*. Erlbaum.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723-742.

Buehler, C. (2020). Family processes and children's and adolescents' well-being. *Journal of Marriage and Family, 82*(1), 145-174.

Busch-Rossnagel, N. A., & Morgan, G. A. (2013). Introduction to Section Three: Overview and analysis. In K.C. Barrett, N.A. Fox, G.A. Morgan, D.J. Fidler, L.A. Daunhauer (Eds.), *Handbook of self-regulatory processes in development: New directions and international perspectives* (pp. 247-264). Psychology Press.

Byrne, B. (2000). *Structural equation modeling with AMOS: Basic concepts, applications, and programming.* Lawrence Erlbaum.

Carlton, P. M. (1999). *Motivation and school readiness in kindergarten children.* [Unpublished doctoral dissertation]. The University of Alabama.

Carlton, P. M., & Winsler, A. (1999). School Readiness: The need for a paradigm shift. *The School Psychology Review, 28*(3), 338-352.

Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding: Chinese parenting through the cultural notion of training. *Child Development, 65,* 1111–1120.

Chao, R. K. (2001). Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Development, 72*(6), 1832-1843.

Cheung, C. S., & McBride-Chang, C. (2008). Relations of perceived maternal parenting style, practices, and learning motivation to academic competence in Chinese children. *Merrill-Palmer Quarterly (1982-), 54*(1), 1-22.

Civelek, M. E. (2018). *Essentials of structural equation modeling*. Zea E-Books. 64. https://digitalcommons.unl.edu/zeabook/64

Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L. McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and textension of the family stress model. *Developmental Psychology, 38(2),* 179-193.

Connell, M. P., & Prinz, R. J. (2002). The impact of child-care and parent-child interactions on school readiness and social skills development for low-income African American children. *Journal of School Psychology, 40*(2), 177-193.

Cronbach L. J. (1954). On the non-rational application of information measures in psychology. In H. Quastler (Ed.), *Information theory in psychology: Problems and methods* (pp. 14 -30). Free Press.

De Oliveira, T. L. B. (2015). *Are associations between parenting style and academic achievement moderated by ethnicity and individualism-collectivism?* (Publication no: 1680832753) [Doctoral dissertation, Walden University]. ProQuest Dissertations Publishing.

Dekovic, M., Janssens, J. M., & Gerris, J. R. (1991). Factor structure and construct validity of the Block child rearing practices report (CRPR). *Psychological Assessment, 3*(2), 182-187.

Dornbusch, S. M., Ritter, P.L., Leiderman, P. H., Roberts, D. F., & Fraleigh, M., J. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58,* 1244-1257.

Duncan, R. J., Schmitt, S. A., Burke, M., & McClelland, M. M. (2018). Combining a kindergarten readiness summer program with a self-regulation intervention improves school readiness. *Early Childhood Research Quarterly*, *42*, 291-300.

Durkin, K. (1995). *Developmental social psychology: From infancy to old age.* Blackwell.

Eccles, J. S. (1993). School and family effects on the ontogeny of children's interests, selfperceptions, and activity choice. In J. Jacobs (Ed.), *Nebraska symposium on motivation*, 1992: *Developmental perspectives on motivation* (pp. 145-208). Lincoln: University of Nebraska Press

Fagot, B. I. (1978). The influence of sex of child on parental reactions to toddler children. *Child Development, 49,* 459-465.

Fagot, B. I., & Hagan, R. (1991). Observations of parent reactions to sex-stereotyped behaviors: Age and sex effects. *Child Development, 62,* 618-628.

Fantuzzo, J., Perry, M. A., & McDermott, P. (2004). Preschool approaches to learning and their relationship to other relevant classroom competencies for low-income children. *School Psychology Quarterly, 19*, 212-230.

Fox, S., & Geddes, M. (2016). *Preschool-two years are better than one: developing a preschool program for Australian 3-year-olds-Evidence, policy and implementation.* Mitchell Institute Policy Paper No. 03/2016. Mitchell Institute, Melbourne. https://vuir.vu.edu.au/33602/1/Two-Years-are-Better-than-One.pdf

Fung, W. K. (2022). Social mastery motivation mediates the link between parental responsiveness and children's social-emotional competence. *Early Education and Development*, 33(5), 846-857.

Gottfried, A. E. (1985). Academic intrinsic motivation in elementary and junior high school students. *Journal of Educational Psychology, 77*(6), 631-645.

Gür, B. S., Celik, Z., & Özoğlu, M. (2012). Policy options for Turkey: A critique of the interpretation and utilization of PISA results in Turkey. *Journal of Education Policy*, *27*(1), 1-21.

Harter, S. (1992a). The relationship between perceived competence, affect, and motivational Orientation within the classroom: Processes and patterns of change. In R. K. Boggiano and T. S. Pittman (Eds.), *Achievement and motivation* (pp. 77-114). Cambridge University Press.

Harter, S. (1992b). Current theory and research in motivation. In J. E. Jacobs (Ed.) *Nebraska symposium on motivation: Developmental perspectives on motivation, 40.* (pp. 99-144).

Henrich, C. C., Wheeler, C. M., & Zigler, E. F. (2005). Motivation as a facet of school readiness in a head start sample. *NHSA Dialog: A Research-to-Practice Journal for the Early Intervention Field,* 8(1), 72-87.

Honig, A. S. (1975). *Parent involvement in early childhood education.* National Association for the Education of Young Children.

Howse, R. B. Lange, G., Farran, D. C., & Boyles, C. D. (2003). Motivation and self-regulation as predictors of achievement in economically disadvantaged young children. *Journal of Experimental Education, 71*(2), 151-174.

Janus, M, & Offord, D. (2003a). *Early development instrument.* The Offord Centre for Child Studies. McMaster University, Hamilton Health Sciences Corporation.

Janus, M, & Offord, D. (2003b). *Development of a community-level measure of school readiness to learn for 4-5 year old children.* The Offord Centre for Child Studies. McMaster University, Hamilton Health Sciences Corporation.

Jennings, K. D., & Dietz (2003). Mastery motivation and goal persistence in young children. In M. H. Bornstein, L. Davidson, C. L. M. Keyes, K. A. Moore (Eds.), *Well-being: Positive development across the life course*. Erlbaum.

Józsa, K., Kis, N., & Barrett, K. C. (2019). Mastery motivation, parenting, and school achievement among Hungarian adolescents. *European Journal of Psychology of Education, 34*(2), 317-339.

Kagitcibasi, C. (1996). *Family and human development across cultures: A view from the other side.* Lawrence Erlbaum.

Kagitcibasi, C. (2006). Theoretical perspectives on family change. In J. Georgas, J. W. Berry, F. J. R. van de Vijer, C. Kagitcibasi, & Y. H. Poortinga (Eds.) *Families across cultures: A 30-nation psychological study* (pp. 72-89). Cambridge University Press.

Kagitcibasi, C. (2007). *Family, self, and human development across cultures: Theory and applications* (2nd ed.) Lawrence Erlbaum.

Kahramanoğlu, R., Tiryaki, E. N., & Canpolat, M. (2014). İlkokula yeni başlayan 60-66 ay grubu öğrencilerin okula hazır oluşları üzerine inceleme. *Kastamonu Eğitim Dergisi, 23*(3), 1065-1080.

Kapçı, E., Artar, M., Çelik, E. G., Daşcı, E., & Avşar, V. (2013). *İlkokul birinci sınıfa farklı yaşlarda başlayan çocukların ruhsal ve sosyal gelişimi ile akademik*

benlik algılamaları açısından karşılaştırılması. Unpublished project. Ankara University.

Kartal, S. (2013). Türkiye'de ilkokula başlama yaşının beş yaşa indirilmesinin eğitim politikaları açısından değerlendirilmesi. *Mülkiye Dergisi*, *37*(3), 201-214.

Kenny, D. A. (2006, May 15). Mediation. Davidkenny.net. http://davidakenny.net/cm/mediate.htm

Kotaman, H. (2018). Impact of parenting, reward, and prior achievement on task persistence. *Learning and Motivation*, *63*, 67-76.

Linnenbrink, E. A., & Pintrich, P. R. (2002). Motivation as an enabler for academic success. *School Psychology Review, 31*(3), 313-327.

MacPhee, D., Prendergast, S., Albrecht, E., Walker, A. K., & Miller-Heyl, J. (2018). The child-rearing environment and children's mastery motivation as contributors to school readiness. *Journal of Applied Developmental Psychology*, *56*, 1-12.

MacTurk, R. H., & Morgan, G. A. (Eds.) (1995). *Mastery motivation: Origins, conceptualizations, and applications.* Ablex Publishing.

MacTurk, R. H., Morgan, G. A., & Jennings, K. D. (1995). The assessment of mastery motivation. In R. J. MacTurk, & G. A. Morgan (Eds.). *Mastery motivation: origins, conceptualizations and applications* (pp. 19-56). Ablex.

Marcoulides, G. A., & Schumacker, R. E. (2001). *New developments and techniques in structural equation modeling.* Lawrence Erlbaum.

McGillicudy-DeLisi, A. (1996). Children's self-perceptions and mothers' beliefs about development and competencies. In I. E. Sigel, A. V., McGillicuddy-DeLisi, & J. J. Goodnow (Eds.), *Parental belief systems: The psychological consequences for children* (2nd ed., pp. 115-142). Lawrence Erlbaum.

McGillicuddy-De Lisi, A., & Sigel, I. (1995) Parental Beliefs. In M. Bornstein (Ed.), *Handbook of Parenting.* pp.333-358. New Jersey: Erlbaum.

McGroder, S. M. (2000). Parenting among low-income African American single mothers with preschool-age children: Patterns, predictors, and developmental correlates. *Child Development, 71*(3), 752-771.

Messer, D.J. (Ed.) (1993). *Mastery motivation in early childhood: Development, measurement and social processes.* Routledge.

Metindogan-Wise, A. (2007). *Parenting, child mastery motivation, and children's school readiness to learn in Turkey: A structural equation analysis.* (Publication no: 304772722) [Doctoral Dissertation, Syracuse University]. ProQuest Dissertations and Theses Global.

Moorman, E. A., & Pomerantz, E. M. (2008). The role of mothers' control in children's mastery orientation: A time frame analysis. *Journal of Family Psychology*,

22(5), 734–741. https://doi-org.proxy.library.uu.nl/10.1037/0893-3200.22.5.734

Morgan, G. A., MacTurk, R. H., & Hrncir, E. J. (1995). The assessment of mastery motivation in infants and young children. In R. H. MacTurk, & G. A. Morgan (Eds.). *Mastery motivation: Origins, conceptualizations, and applications, (*pp. 1-18). Ablex Publishing.

Okulöncesi Eğitim Programı (2013). Milli Eğitim Bakanlığı Temel Eğitim Genel Müdürlüğü. Retrived on April 17, 2019. *https://tegm.meb.gov.tr/dosya/okuloncesi/ooproram.pdf*

Osher, D., Cantor, P., Berg, J., Steyer, L., & Rose, T. (2020). Drivers of human development: How relationships and context shape learning and development. *Applied Developmental Science*, *24*(1), 6-36.

Özbey, S., & Gürler, S. A. (2019). Okul öncesi eğitim kurumlarina devam eden çocuklarin motivasyon düzeyleri ile sosyal becerileri ve problem davranişlari arasindaki ilişkinin incelenmesi. *Uluslararası Türkçe Edebiyat Kültür Eğitim (TEKE) Dergisi*, *8*(1), 587-602.

Özgünlü, M., & Metindogan, A. (in press). The relationship between the quality of early childhood education and socioeconomic background of children. *Boğaziçi University Journal of Education*.

Pan, Q., Trang, K. T., Love, H. R., & Templin, J. (2019). School readiness profiles and growth in academic achievement. *Frontiers in Education, 4,* https://doi.org/10.3389/feduc.2019.00127

Paris, S. G., Morrison, F. J., & Miller, K., F. (2006). Academic pathways from preschool through elementary school. In. P. A. Alexandar, & P. H. Winne (Eds.) *Handbook of educational psychology* (pp. 61-85). Lawrence Erlbaum Associates.

Pedhazur, E. J. (1997). *Multiple regression in behavioral research* (3rd ed.). Harcourt Brace College Publishers.

Pianta, R. C., Barnett, W. S., Burchinal, M., & Thornburg, K. R. (2009). The effects of preschool education: What we know, how public policy is or is not aligned with the evidence base, and what we need to know. *Psychological Science in the Public Interest*, *10*(2), 49–88.

Pinquart, M. (2016). Associations of parenting styles and dimensions with academic achievement in children and adolescents: A meta-analysis. *Educational Psychology Review*, *28*(3), 475-493.

Pomerantz, E. M., Ng, F. F. Y., & Wang, Q. (2006). Mothers' mastery-oriented involvement in children's homework: Implications for the well-being of children with negative perceptions of competence. *Journal of Educational Psychology*, *98*(1), 99-111.

Querido, J. G., Warner, T. D., & Eyberg, S. M. (2002). Parenting styles and child behavior in African American families of preschool children. *Journal of Clinical Child and Adolescent Psychology*, *31*(2), 272-277.

Raver, C. C., Gershoff, E. T., & Aber, J. L. (2007). Testing equivalence of mediating models of income, parenting, and school readiness for White, Black, and Hispanic children in a national sample. *Child Development, 78*(1), 96-115.

Rimfeld, K., Malanchini, M., Krapohl, E., Hannigan, L. J., Dale, P. S., & Plomin, R. (2018). The stability of educational achievement across school years is largely explained by genetic factors. *NPJ Science of Learning*, *3*(1), 1-10.

Roberts, W. L. (1999). *Child Rearing Practices Q-Sort (Revised).* Retrieved August 1, 2022 from https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.507.8197&rep=rep1&type=pdf

Sabatelli, R. M. & Bartle, S. E. (1995). Survey approaches to the assessment of family functioning: Conceptual, operational, and analytical issues. *Journal of Marriage and the Family*, *57*, 1025-1039.

Saklan, E., & Erginer, A. (2016). Türkiye'de okul öncesi eğitime ilişkin politika ve finansman uygulamalari. *Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, *6*(2). 15-44.

Santor, D. A., Colvin, E., & Sinclair, A. (2020). Coping with failure. *Educational Review*, *72*(5), 635-649.

Scaramella, L. V. Conger, R. D., Simons, R. L., & Whitbeck, L. B. (1998). Predicting risk for pregnancy by late adolescence: A social contextual perspective. *Developmental Psychology, 34(*6). 1233-1245.

Shumow, L., Vandell, D. L., & Posner, J. K. (1998). Harsh, firm, and permissive parenting in low-income families. *Journal of Family Issues*, *19*(5), 483- 507.

Sigel, I. E. & McGillicuddy-De Lisi, A. V. (2002). Parental beliefs as cognitions: The dynamic belief systems mode. In M. H. Bornstein (Ed.), *Handbook of parenting: Being and becoming a parent* (pp. 485–508). Lawrence Erlbaum Associates Publishers.

Sobel, M. E., (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290-312). American Sociological Association.

Squires, G., & Kefallinou, A. (2019). *Preventing school failure: A review of the literature.* European Agency for Special Needs and Inclusive Education.

Turnbull, K. L., Mateus, D. M. C., LoCasale-Crouch, J., Coolman, F. L., Hirt, S. E., & Okezie, E. (2022). Family routines and practices that support the school readiness of young children living in poverty. *Early Childhood Research Quarterly*, *58*, 1-13.

Turner, L. A. & Johnson, B. (2003). A model of mastery motivation for at-risk preschoolers. *Journal of Educational Psychology, 95*(3), 495-505.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.

Welsh, J. A., Nix, R. L., Blair, C., Bierman, K. L., & Nelson, K. E. (2010). The development of cognitive skills and gains in academic school readiness for children from low-income families. *Journal of Educational Psychology*, *102*(1), 43-53.

Winter, S. M., & Kelley, M. F. (2008). Forty years of school readiness research: What have we learned?. *Childhood Education*, *84*(5), 260-266.

Çocukların Başarı Motivasyonunun Ebeveynlerin Çocukların Öğrenmeye Hazır Oluşuna Etkisinde Aracı Rolü: Yapısal Eşitlik Modeli

Öz

Bu araştırma ebeveynlerin çocuk yetiştirme stilleri ve çocukların öğrenme motivasyonlarının okul-öncesi döneminde bulunan çocukların okula hazır bulunuşluğuna etkisini incelemek üzere tasarlanmıştır. Araştırmaya dahil edilen iki yüz otuz iki çift anne-babadan sosyo-ekonomik durumları, çocuk yetiştirme tarzları ve çocuklarının başarı motivasyonuna dair bilgi edinilmiş. Çocukların sınıflarında bulunduğu erken çocukluk eğitimcileri ise çocukların okula hazır bulunuşluklarını beş ayrı alanda (fiziksel iyi oluş, duygusal olgunluk, sosyal yetkinlik, dil ve bilişsel alanda yetkinlik ve iletişim ve genel bilgi) değerlendirmiş, ayrıca başarı motivasyonu ölçeğini de doldurmuştur. Yapısal eşitlik modeline göre incelenen araştırma verilerinin sonucunda başarı motivasyonunun çocukların okula hazır bulunuşluğunu pozitif yönde yordadığı, ayrıca başarı motivasyonun çocuk yetiştirme stillerinin okula hazır bulunuşluğa olan etkisinde aracı rolü oynadığı görülmüştür.

Anahtar Kelimeler: Başarı motivasyonu, okula hazır bulunuşluk, çocuk yetiştirme stilleri, okul-öncesi çocukları