



Examining Mother-Child Agreement in the Reports of Child Competence by Maternal Education and Gender

Elif ÖZEN^a  Nihal YENİAD^b  Bengü BÖRKAN^b 

^aMaltepe University, İstanbul, Turkey, ^bBoğaziçi University, İstanbul, Turkey

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ABSTRACT

This study aims to examine whether the level of agreement between mothers' and children's reports of children's self-perception across different areas differ(s) by child gender and maternal educational level. The sample consisted of adolescents aged between 9 and 14 and their mothers (N = 270). Adolescents filled out Harter's Self-Perception Profile for Children (SPPC; 2012) to assess their competence in different domains (e.g., social adjustment, school success). The instructions for SPPC were modified for mothers to evaluate their children's perception of competence. The reports of mothers and their children were compared, and the results indicated low-to-moderate agreement between mothers-child dyads about children's sense of competence. Second, children were found to have a higher global sense of self-worth and perceive themselves as more competent in social, behavioral, and athletic areas when compared to their mothers' perceptions. Finally, it was determined that the agreement between the mother-child dyad differs by the mothers' education level and the child's gender. Accordingly, low-educated mothers perceived their children as less behaviorally competent than the children themselves did. Regarding social competence, the perception of low-educated mothers differed with their daughters but not with their sons. The results were discussed in view of the context of Turkish mothers' socialization and gender role expectations.

More than two decades ago, Harter (1999) defined self-perception as the traits one knowingly accepts and uses to describe oneself by referring to the duality between the I-self as 'knower' and the Me-self as 'known object'. This dynamic cognitive process is comparable to reformulating a scientific hypothesis or theory with each new piece of information (Epstein, 1973). As Cooley (1902) described with the concept of the "looking-glass self" (p. 184), one's self-perception grows out of interactions and experiences with his or her significant others, which serve as social mirrors. Therefore, children's developing self-related beliefs are considered to be associated with their social interactions, especially with their parents. Hattie (1992) suggested that "parental evaluations, interests and expectations" play an essential role in promoting children's self-concept (p. 189). In that sense, the existing literature primarily focuses on a more tangible area: the impact of parents' beliefs about their children on children's subject-based self-concept (Frome & Eccles, 1998; Gniewosz et al., 2014; McGrath & Repetti, 2000; Phillips, 1987). In that sense, parents as "expectancy socializers" communicate their expectations regarding their children's competence in various areas through direct and indirect ways. Direct ways can be exemplified by encouragements, comments or messages about the difficulty level of a task (Parsons et al., 1982, p. 311), whereas indirect ways by finding a tutor, helping with their homework (Gniewosz et al., 2014). A considerable amount of evidence shows that parents' earlier beliefs regarding their children's

CORRESPONDING AUTHOR Elif ÖZEN, ozenelif@gmail.com, ORCID: 0000-0003-4362-1942, Maltepe University, İstanbul, Turkey.

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capabilities predicted adolescents' later self-perceptions about science (Bleeker & Jacobs, 2004), math (Pesu et al., 2016); literacy (Pesu et al., 2018); English (Frome & Eccles, 1998), German (Gniewosz et al., 2014), achievement, domain-general school-related abilities (Spinath & Spinath, 2005) and physical competence (Bois et al., 2002; Bois et al., 2005). Furthermore, parents' beliefs were better predictors of children's later performance than children's actual performance or previous accomplishments such as grades or performance rankings (Jacobs & Eccles, 1992). Some findings seem particularly striking in that parents' appraisals about their children's capabilities (Phillips, 1987) and mothers' satisfaction with their grades (McGrath & Repetti, 2000) were stronger predictors for children's self-perceptions of general academic competence than actual records of achievement especially in the transition to higher school level (Gniewosz et al., 2012). A more recent study showed that parents' perceptions of their adolescent's abilities mediated the influence of actual performance on their self-perceptions (Gniewosz et al., 2014). This indicates that parents act as interpreters of information about actual competence records for their children's self-perceptions.

Although previous findings pointed to the strong influence of parents' appraisals on children's self-perceptions, meta-analytic findings showed that parents and children agree to a small-to-moderate degree about their social and behavioral functioning (Renk & Phares, 2004), social and emotional skills (Gresham et al., 2017) and mental health, explicitly internalizing and externalizing problems (De Los Reyes et al., 2015; Lohaus et al., 2020). These relatively recent findings seem align with the previous ones of a meta-analysis of 119 studies, which revealed low-to-moderate convergence between self- and proxyreports (namely, parents, teachers, peers, and mental health workers) about behavioral/emotional problems (Achenbach et al., 1987). Some empirical studies show a moderate degree of parent-adolescent agreement about children's achievement in academic areas such as Math and English (Bornholt & Goodnow, 1999). On the other hand, some studies showed that the level of agreement between parents' perception of their children's competence and children's self-perception differs depending on the area (Epkins, 1998; Montgomery, 1994). For example, the agreement was higher in social and scholastic competence than the areas of athletic skills, physical appearance, and behavioral competence (Epkins, 1998). Given these findings, the first aim of this study was to compare mothers' perceptions about their children's capabilities to children's self-perceptions in domain-specific areas (i.e., school achievement, sports performance, social skills, physical appearance, and behavioral competence) as well as a global sense of self-worth.

Previous studies suggest that the discrepancy between mother and child perceptions of children's psychological functioning is a risk factor for adverse outcomes such as child behavior problems and harsh parenting practices (De Los Reyes & Kazdin, 2006; Ferdinand et al., 2004). These findings highlight the importance of studying potential discrepancies in mother-child perceptions as a predictor of child and family functioning. However, it is not clear whether they are generalizable to the non-WEIRD (Westernized, Educated, Industrialized, Rich, Democratic; Brummelman & Thomaes, 2017) populations, who are underrepresented (only 3% of the samples of published studies) in psychology literature (Nielsen et al., 2017). Familial relationships in Turkey, where this study was conducted, are characterized by intergenerational "psychological/emotional interdependence" of family members even when material interdependencies decrease due to urbanization and modernization (Kağıtçıbaşı, 2017). On the contrary, Western societies are identified by the independent family model displaying autonomy in both material and emotional realms. In the model proposed by Kağıtçıbaşı (2017), individualism and collectivism can exist side-by-side, indicating that autonomy goes together with relatedness. In that sense, Turkish mothers' parenting socialization values demonstrate differences based on socio-demographic characteristics such as their educational level (Altan-Aytun et al., 2012; Durgel et al., 2012; Yağmurlu et al., 2009), and their whereabouts (rural vs. city; Imamoğlu, 1998). This study, drawing on a Turkish sample of mother-child dyads from different backgrounds, may thus contribute to a reconsideration of Western normativity in the pertinent literature.

Moderators of Mother-child Agreement on Child Outcomes: Child Gender and Maternal Education

Previous findings point out that individual characteristics of informants, such as gender, age, socioeconomic status, ethnicity, social desirability, and mental well-being may lead to variation in self-reports and agreement with others (De Los Reyes & Kazdin, 2005; Lohaus et al., 2020). The second aim of this study is to examine whether the level and pattern of the agreement in mother-child dyads differ by child gender and maternal

educational level. Existing findings regarding whether mother-child discrepancies in their perceptions of child psychological outcomes vary by child gender seem mixed. Some findings showed no gender differences in discrepancy between mothers and children reports about children's anxiety disorders (e.g., Affrunti & Woodruff-Borden, 2015; Choudhury et al., 2003; Grills & Ollendick, 2002; Pereira et al., 2015). However, others indicated that the agreement between parents' and children's reports was stronger for depressive symptoms in girls and aggression in boys (Epkins & Meyers, 1994). Furthermore, some studies revealed contradicting results for their anxiety disorders, such that parents showed somewhat higher agreement with their sons (Rapee et al., 1994). In contrast there was a higher agreement between mothers and their daughters (van Doorn et al., 2018). Other studies showed that parent-son agreement was significantly more substantial regarding behavioral disorders (Reich et al., 1982) and depressive symptoms (Angold et al., 1987). In addition, another line of research shows that children's self-perceptions of their psychosocial and behavioral outcomes may vary by gender. Accordingly, the results demonstrated that girls view themselves as more competent in behavioral conduct (Cole et al., 2001; Kuzucu et al., 2013; Guimaraes, 2015) and academics (Fu et al., 2020) than boys. On the other hand, in comparison with boys, they perceive themselves less athletic and less physically attractive (Cole et al., 2001; Guimaraes, 2015; Kuzucu et al., 2013; Mendelson et al., 1996); less socially capable and less self-worthy (Guimaraes, 2015; Noordstar & Volman, 2020; Van den Bergh & Marcoen, 1999). It seems that child gender is a crucial predictor for the level of their agreement with their parents and children's self-perceptions with no empirical consensus.

Existing findings regarding the relationship between parental education and informant discrepancies are mixed. Youngstrom and colleagues (2000) also showed that parents with a higher socioeconomic status (SES) agreed more with their male adolescents about their externalizing problems than those with a lower SES. It is not very unreasonable to expect high-educated parents to be more involved with their children's academic life and hence more knowledgeable about their strengths and weaknesses as they are more familiar with the education system (Räty et al., 1999). On the other hand, De Los Reyes and Kazdin (2005) argue that the supposed relation between the two is likely to be spurious and results from other informant characteristics. For instance, some studies revealed that when other characteristics, such as informants' mood, were considered, the SES was found to be unrelated to informant agreement/discrepancy (e.g., Chi & Hinshaw, 2002). According to Bornstein et al. (2003), maternal education seems to be the most reliable predictor among other SES demographics in predicting children's behavioral outcomes. Moreover, particularly in developing countries like Turkey, family income may not always reflect the educational background of family members (Yağmurulu et al., 2009), and economic status tends to be susceptible to change (McLoyd, 1998). Thus, in our study, maternal education level used as a moderator variable rather than family SES.

Overall, the question as to whether there are any child or mother characteristics moderating the concordance between the beliefs of the dyad regarding the child's capabilities and sense of self-worth seems unanswered for a non-WEIRD sample, our study examines whether the degree of agreement/discrepancy between Turkish children's self-evaluations and their mothers' perceptions about how their children view and feel about themselves varies by child gender and maternal educational level.

Method

Sample

The sample of this study included 270 middle school children with a mean age of 11.69 ($SD = 1.35$) and their mothers, who were recruited through the convenience sampling method. Being a middle school student was used as an inclusion criterion, while having any special education needs was used as an exclusion criterion in sample selection. No exclusion criterion was set for mothers. Of the participants, 54.1% were female, 52.2% were students at public schools, and the rest were at private schools. Their grade level ranged from 5th to 8th grade in middle school, and the proportion of students was similar across the grade levels. About 59.9% of mothers completed high school and/or higher degrees, and 55.6% were housewives. The average family income (monthly) was less than 6000 Turkish Liras (about 320 US dollars). The distribution of fathers' educational level was also included as an indicator of the SES of the families that participated in the study. Table 1 presents other demographic characteristics of the sample.

Table 1. Mother-Reported Demographic Characteristics

	Mothers' Education		Fathers' Education	
	n	%	n	%
Primary School	79	30.7%	53	21.2%
Middle School	24	9.3%	31	12.4%
High School	65	25.3%	86	34.4%
Vocational Sch. of Higher Edu.	23	8.9%	9	3.6%
University	46	17.9%	54	21.6%
Master's degree	10	3.9%	13	5.2%
Others	10	3.9%	4	1.6%
Mothers' Employment Status				
Housewife	150	55.6%		
Employed	107	39.6%		
Monthly Income (Turkish Liras)				
Less than 2000	53	19.6%		
2000 – 5999	123	45.6%		
6000 – 9999	39	14.4%		
More than 10000	31	11.5%		

Procedure

Ethical approval from the Institutional Review Board for Research of the university and permission from the Ministry of Education were obtained in 2017. The project was announced at five different schools through the help of school counselors, and the informed consent and family information forms were sent to the mothers via their children. Children of participating mothers were asked to participate in the study, and their consent was also received. The children gave their consent to participate in the study and filled out the forms on school grounds. Data were collected between May and November 2017 through home visits or in schools.

Measures

Harter's self-perception profile for children (SPPC) - child and mother forms. Harter's (1982) Self-Perception Profile for children, which was developed to measure children's self-evaluation in terms of scholastic (i.e., Perception of their cognitive and academic abilities), social (i.e., Perception of social skills and acceptance by others), athletic competence (i.e., Perception of competence in sports), physical appearance (i.e., Contentedness of one's looks), behavioral conduct (i.e., Behaving as they supposed to), and global sense of self-worth (i.e., General evaluation of oneself as a person) through 36 items was filled out by both mothers and children. However, the sum of domain-specific competence beliefs does not generate global self-worth; instead, it is separate construct (Harter, 2012). This questionnaire has a "structured alternative format" in which the participant is given two statements about children (i.e., scholastic competence: *Some kids often forget what they learn, but other kids can remember things quickly*), and they are expected to choose one of them "really true for me" and "sort of true for me" (Harter, 2012, p.4). Each item is scored from one (i.e., a low sense of

competence) to four (i.e., a high sense of competence). Harter (2012) stated that the same items could be used to examine adults' perception of competence regarding their children. Therefore, the same questionnaire was used for the mothers to measure their perception of their children. In mothers' form, only the instruction was modified (i.e., some kids find it hard to make friends but others find it pretty easy to make friends), and the response choices were changed to "really true for my child" and "sort of true for my child" but the items and the format of the scale remain unchanged. The original version has sufficient internal consistency, reliabilities, and validity (Harter, 2012). The Turkish form was adapted by Şekercioğlu (2009), and the original design of the Self-Perception Profile of Children (SPPC) was found to be reliable and valid for Turkish culture. In this study, Cronbach's alpha coefficients of subscales ranged from .58 to .80 for Child Form and from .55 to .74 for the Mother Form. It was suggested that to investigate the agreement between the perception of adults and children in related areas, Harter's SPPC can be used (Harter, 2012).

Family Information Form. In this form, the mothers reported the birth date, gender, school type, and grade level of their children participating the current study, and also their own and husband's educational level, their current employment status and monthly income of their family.

Statistical Analyses

The Statistical Packages for Social Sciences (SPSS – v. 23) was used to analyze the data. Six dependent variables for self-report and mother-report measures were used: scholastic competence, social competence, athletic competence, physical appearance, behavioral conduct, and general self-worth. The studies of discrepancies or agreement between different informants on child outcomes have been noted as a methodological issue as difference scores between the raters were used in some studies (e.g., De Los Reyes & Kazdin, 2005) while correlation coefficients were presented in others as indicators of multi-informants' agreement (e.g., Achenbach et al., 1987; Berg-Nielsen et al., 2003). In this study, the agreement between mothers and pre-adolescents was examined by using 95% confidence intervals (CI) of the mean difference and Cohen's *d*. In this study, for the second research question, a one-way between-group multivariate analysis of variance was conducted to investigate whether self-reports and mothers' reports differ based on some demographics. For maternal education as moderator of a discrepancy, the mothers were categorized into two groups as low educated ($n = 103$) continued school for compulsory education for 8 years or less and high educated mothers ($n = 144$) continued school more than 8 years.

Results

Descriptive Statistics And Consistency Between Scores of Mothers' and Children's Reports

Table 2 presents the mean scores of mothers' and children's reports, their associated 95% confidence intervals (CI) of the mean difference, and standardized effect sizes (*d*). The effect size was categorized into three groups, $d = 0.2$ as small, $d = 0.5$ as medium, and $d = 0.8$ as large (Cohen, 1988).

As Table 2 shows, the effect size was low-to-moderate for the total sample; mothers underrated their children's perception of their competence in four areas, namely social, athletic, and behavioral competence and general self-worth. A glance at gender differences in mother-child agreement demonstrates that girls rated their social and athletic skills and general self-worth higher than their mothers did while mothers scored their daughters' scholastic performance higher than the daughters themselves. On the other hand, boys rated themselves as more competent in the behavioral domain and general self-worth than their mothers thought whereas the mothers rated their sons' perception of physical appearance higher than the boys themselves. Regarding whether the mother-child agreement differs by maternal education, the results revealed that the low-educated mothers underrated their children's competence in the areas of social and behavioral domains and their general sense of self-worth. On the other hand, the high-educated mothers underrated their children's athletic competence and a general sense of self-worth while they overrating their children's academic competence.

Table 2. Mothers' and children's reports on self-perception profile

Self-Perception Profile domains	Mother-report <i>M</i> (SD)	Child-report <i>M</i> (SD)	95% CI	<i>Cohen's d</i>	Mother-report <i>M</i> (SD)	Child-report <i>M</i> (SD)	95% CI	<i>Cohen's d</i>
<i>Full Sample (N = 235)</i>								
Scholastic Competence	3.22 (.57)	3.16 (.61)	[-0.02, 0.14]	0.10				
Social Competence	2.98 (.56)	3.11 (.57)	[-0.21, -0.05]**	0.21				
Athletic Competence	2.92 (.59)	3.02 (.62)	[-0.19, -0.02]*	0.15				
Physical Appearance	3.18 (.64)	3.11 (.74)	[-0.03, 0.17]	0.10				
Behavioral Conduct	3.06 (.62)	3.19 (.58)	[-0.21, -0.05]**	0.21				
General Self-Worth	3.24 (.54)	3.45 (.55)	[-0.29, -0.12]***	0.32				
<i>Female (N = 126)</i>				<i>Male (N = 109)</i>				
Scholastic Competence	3.35 (.54)	3.23 (.62)	[0.02, 0.22]*	0.21	3.07 (.57)	3.07 (.58)	[-0.14, 0.12]	0.01
Social Competence	2.98 (.57)	3.15 (.61)	[-0.29, -0.06]**	0.27	2.98 (.55)	3.07 (.52)	[-0.20, 0.03]	0.14
Athletic Competence	2.88 (.61)	3.00 (.67)	[-0.23, -0.01]*	0.18	2.97 (.56)	3.05 (.56)	[-0.22, 0.05]	0.12
Physical Appearance	3.11 (.68)	3.12 (.79)	[-0.13, 0.13]	0.01	3.27 (.59)	3.11 (.67)	[0.02, 0.31]*	0.21
Behavioral Conduct	3.18 (.61)	3.27 (.57)	[-0.21, 0.02]	0.15	2.93 (.60)	3.10 (.57)	[-0.28, -0.06]**	0.28
General Self-Worth	3.23 (.57)	3.46 (.57)	[-0.34, -0.11]***	0.42	3.25 (.50)	3.43 (.53)	[-0.30, -0.06]**	0.29
<i>Mothers' education < 8 years (N = 98)</i>				<i>Mothers' education > 8 years (N = 126)</i>				
Scholastic Competence	3.10 (.56)	3.12 (.57)	[-0.16, 0.11]	0.04	3.32 (.57)	3.19 (.64)	[0.02, 0.24]*	0.21
Social Competence	2.85 (.56)	3.03 (.52)	[-0.30, -0.05]**	0.27	3.08 (.54)	3.19 (.60)	[-0.22, -0.00]	0.18
Athletic Competence	2.86 (.56)	2.94 (.59)	[-0.21, 0.06]	0.11	2.94 (.62)	3.09 (.64)	[-0.26, -0.03]*	0.22
Physical Appearance	3.15 (.68)	3.10 (.74)	[-0.12, 0.21]	0.05	3.23 (.62)	3.15 (.73)	[-0.05, 0.20]	0.11
Behavioral Conduct	2.91 (.65)	3.13 (.59)	[-0.36, -0.90]**	0.34	3.18 (.58)	3.23 (.56)	[-0.15, 0.04]	0.10
General Self-Worth	3.09 (.56)	3.33 (.59)	[-0.39, -0.10]**	0.33	3.35 (.49)	3.54 (.51)	[-0.30, -0.09]***	0.34

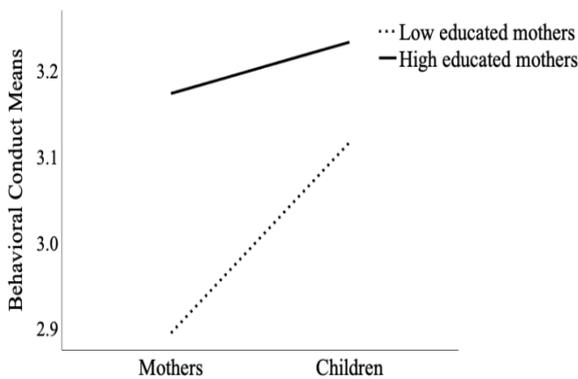
*<.05, **<.01, ***<.001

The Moderating Role of Child Gender and Maternal Education Level on Mother-Child Agreement

Mixed design analysis of variance (ANOVA) with one within-subjects, and two between-subjects factors (mother-child dyad x gender x mother education level) was used to compare mother’s reports and children’s self-reports separately for six domains of self-perception and examine whether the child gender and mother’s education level moderate the agreement between mothers’ reports and child’s reports on children’s self-perceptions.

In the area of behavioral conduct, the ANOVA results showed no significant three-way interaction, $F(1, 220) = 1.61, p = .21$, however, the two-way interaction between mother-child dyad in mothers’ education was significant $F(1, 220) = 4.06, p = .05$, indicating that the mothers’ educational level had a moderating role in mother-children agreement as illustrated in Figure 3. While high-educated mothers’ perceptions and their children’s self-perceptions regarding children’s behavioral competence did not differ significantly $t(125) = -1.07, p = .29$, low-educated mothers’ perceptions significantly differed from those of their children regardless of their gender. In that sense, children ($M = 3.13, SD = .59$) perceived themselves more behaviorally competent than mothers ($M = 2.91, SD = .61$) perceived them, $t(97) = -3.33, p = .001$.

Figure 1. The moderating role of maternal educational level in mothers’ and children’s reports of behavioral conduct



The results showed significant results for a three-way interaction in social competence, $F(1, 220) = 4.57, p = .034$. To further examine this three-way interaction, one within-subjects (mother-child dyad) one between-subjects (level of mothers’ education) ANOVA was conducted separately for girls and boys. The mothers’ education level had a moderating role in the agreement between mother-daughter dyads, as in Figure 2. Accordingly, there was an agreement between high-educated mothers and their daughters in terms of how socially competent they are, as shown by the insignificant t -test difference, $t(67) = -.80, p = .43$. On the other hand, low-educated mothers’ perceptions ($M = 2.85, SD = .54$) significantly differed from their daughters’ self-perceptions ($M = 3.14, SD = .54$) in this domain, $t(53) = -3.26, p = .00$. These results indicated that the daughters of low-educated mothers perceived themselves as more socially competent than their mothers thought. Nevertheless, the mothers’ educational level did not have a moderating role in the agreement of the mother-son dyad, as the two-way interaction (mother-child dyad x mother education level) was not significant.

Figure 2. The moderating role of maternal education level in mothers' reports and girls' self-report of social competence

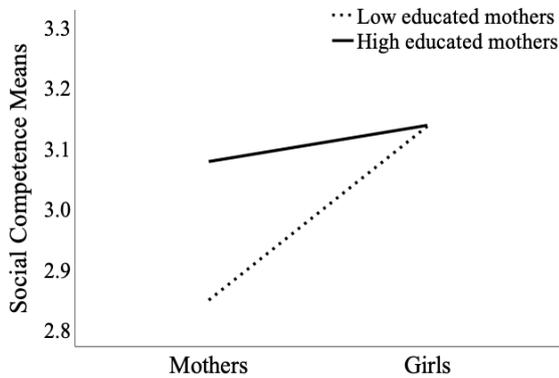
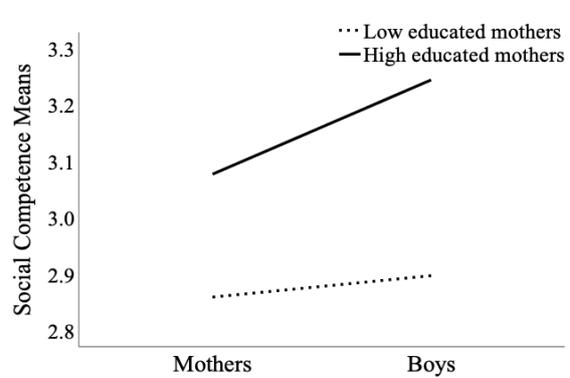


Figure 3. The moderating role of maternal education level in mothers' reports and boys' self-report of social competence



Discussion

Previous studies that compared self- and proxyreports revealed that parents and children agreed to a small degree about children's social and behavioral functioning (e.g., Renk & Phares, 2004) and mental health (e.g., De Los Reyes et al., 2015). There is some evidence showing that parents' beliefs about their children's capabilities predicted children's later self-perceptions of domain-general (Spinath & Spinath, 2005) and domain-specific (Bleeker & Jacobs, 2004) skills beyond children's actual performance (Jacobs & Eccles, 1992). Given previous findings that some informant characteristics may influence discrepancies between children's and parents' reports on children's psychological functioning (De Los Reyes & Kazdin, 2005), it seems critical to investigate whether there are any child or mother characteristics moderating the concordance between the beliefs of the dyad, especially among non-WEIRD samples. This inquiry can shed light on the generalizability of existing findings to Western populations. In this study, we examined whether the degree of agreement between mothers' and their preadolescent children's ratings on children's competence in various areas of functioning differs with respect to maternal education and child gender in a sample of Turkish mother-child dyads. Three striking results can be gleaned from this study. First of all, our findings showed a mother-child perception discrepancy in that children perceived their skills as better than their mothers in many areas (i.e., social, behavioral and athletic competence a general sense of self-worth). Second, low-educated mothers' perceptions significantly differed from those of their children regarding children's behavioral competence although there was no such discrepancy between high-educated mothers' and their children's perceptions in this domain. Third, maternal education level predicted mother-child agreement on children's social skills differently in boys and girls. It only moderated the agreement between mother-daughter dyads. Whereas high-educated mothers agreed with their daughters regarding their social skills, low-educated mothers underrated their daughters in this domain.

Our findings supported previous meta-analytic ones showing a small-to-moderate agreement between mothers and their children on children's psychological (Achenbach et al., 1987; De Los Reyes & Kazdin, 2005; Renk & Phares, 2004) and social-behavioral functioning (Renk & Phares, 2004), which points out the importance of obtaining multi-informant ratings given that one source is not replaceable with the other. Our results specifically demonstrated that children perceived their social (e.g., some kids find it hard to make friends), behavioral (e.g., some kids know what they shouldn't do) and athletic (e.g., some kids wish they could be a lot better at sports) skills as better and felt more worthy (e.g., some kids are very happy being the way they are) than their mothers did. Previous research showed that parent-adolescent agreement is much stronger about the child's externalizing behaviors that are bothersome and observable compared to the internalizing ones, which might be concealed by the child or overlooked by the parent for some reasons (e.g., Achenbach et al., 1987; Angold et al., 1987; Kemper et al., 2003; Thompson et al., 1993). Regarding children's social competence, some of the behaviors that pre-adolescents use to build and maintain positive social relationships with peers

may not be salient to their mothers (Karver, 2006). Thus, it is possible that mothers' information about how satisfied their teenage sons or daughters are with the number of their friends or the quality of their friendships may be limited, unless there are warning signs. The same argument may apply to the discrepancy in perception of the child's sense of global self-worth in a dyad. Kemper and colleagues (2003) found that mother-child agreement was even smaller for invisible notions such as low self-worth compared to behavioral manifestations of internalizing problems such as social withdrawal and crying. Thus, it may not seem surprising to identify a remarkable perception discrepancy in the mother-child dyad regarding the child's functioning in the aforementioned domains.

We also found that the degree of agreement on children's behavioral competence in mother-child dyads was moderated by maternal education level and child gender. Accordingly, while high-educated mothers' perceptions converge on their children's self-perceptions, low-educated mothers underestimated their children's behavioral competence regardless of gender. In Harter's scale, behavioral conduct is assessed by asking respondents to report the extent to which children behave as they are supposed to behave (Harter, 2012). Although the family in Turkish culture is characterized by the synthesis of relatedness and agency (i.e., the construct of 'autonomous-related self', Kağıtçıbaşı, 1996, 2017), some findings show that low-educated mothers in Turkey are more likely to prioritize the former over the latter in their socialization goals (Yağmurlu et al., 2009). Thus, particularly in early adolescence, children's attempts for self-enhancement or individuation might be perceived as nonconforming and undesirable by low-educated parents, which may widen the discrepancy in perceptions of the child's behavioral competence in the dyad.

Our results demonstrated that the mother-child agreement on children's social competence was moderated by both maternal education level and child gender together. Further analyses showed that maternal education level was a significant moderator of the agreement on a child's social skills that help them make friends, become popular, and get accepted by classmates for girls but not for boys. Accordingly, low-educated mothers' perception significantly differed from their daughters' self-perceptions in that they underrated their daughters' social skills. On the other hand, no discrepancy was found in the perceptions of low-educated mothers and their sons, as the boys' self-perceptions were already low, just like how their mothers perceived them. It seems critical to provide possible answers to why low-educated mothers had a lower level of confidence in the ability of their daughters to build friendships and gain popularity among peers. One tentative explanation could be related to mothers' gender-differentiated social and behavioral expectations that might be more pronounced in low-educated mothers. It is known that maternal education level is inversely related to gender stereotypes in that the lower the education level, the higher the gender stereotypes that parents hold (Endendijk et al., 2013; Jan & Janssens, 1998). Substantial research demonstrates the effect of parents' gender-stereotypical beliefs on how they perceive their children's competence.

Furthermore, these beliefs are not restricted to academic domains. For instance, parents perceived that boys are better at team sports, whereas girls have better social skills (Jacobs & Eccles, 1992; Eccles et al., 1990). Recent research also reveals that parents convey direct and indirect messages about how girls and boys are supposed to behave in their 'gendered parenting' practices (Mesman & Groeneveld, 2017). Given these findings, the moderating effect of maternal education and child gender on the mother-child agreement cannot be considered independently of mothers' gender stereotypes. Thus, future research can examine the impact of maternal education and child gender on mother-child agreement covaries with mothers' gender stereotypes. Such inquires could provide more robust explanations on why there is a relatively wide perception gap between low-educated mothers and their daughters and why this gap exists only for (low-educated) mother-daughter dyads (and only about social competence), but not for mother-son dyads.

Another possible explanation regarding the mismatch between low educated mothers and their daughters in terms of their social competence might be related to these mothers' 'egocentric bias' (Lagattuta et al. (2012). This term indicates that parents' sense of well-being shapes their perceptions of their children's well-being, either in a negative (e.g., depressed mothers tend to underestimate their children's behavioral functioning; Chi & Hinshaw, 2002; and anxious parents are more likely to perceive their children anxious; Lagattuta et al., 2012; mothers with trauma symptoms report their children as more traumatized; Exenberger et al., 2019) or positive direction (e.g., happier mothers tend to overestimate their children's level of happiness; López-Pérez

& Wilson, 2015). Low-educated mothers are likely to have limited opportunities to establish and maintain socially rewarding relationships in urban life due to low income and a lack of occupational experiences. The ensuing social isolation may shape their perception of their daughters' social lives.

It is also striking that there is a significant gap between the sons of high-educated mothers and those of low-educated ones in terms of their self-perceptions of social skills in contrast to the daughters of low-educated mothers who perceived their social skills as good as those of high-educated mothers. The answer to the question of why boys with high-educated mothers perceive their social skills (i.e., popularity, making friends) as being stronger than boys with low-educated mothers might be directly related to socio-economic factors such as that the first group may have more chances to attend peer activities (e.g., sport clubs, birthday parties, weekend trips, summer camps) that promote their friendships than the latter group. However, this explanation does not apply to the girls with low-educated mothers who perceive themselves as competent enough to establish and maintain friendships. Consequently, considering their self-reports, it seems that preadolescent boys are at a greater risk than girls in terms of keeping peer relationships if they come from less educated homes.

Contrary to our expectations, maternal education did not moderate mother-child perception discrepancy about children's academic competence. Previous research showed that highly educated parents have a refined view of children's academic skills (Räty, 2006; Räty et al., 1999), and maternal education level predicted mothers' perception of their children's scholastic abilities (Pomerantz & Dong, 2006) and children's grades and academic self-efficacy (Lv et al., 2018). This is probably because both parents' and children's perceptions rely on the results of objective assessment tools of academic success (e.g., grades or scores of standardized tests) and higher-educated parents may access school reports, most of which are shared through school websites or mobile apps or they might be just more knowledgeable about cognitive skills and academic performance in general. On the other hand, it is important to note that, differently from the aforementioned studies, we used a proxy measure of children's self-perception through particular items in Harter's scale (e.g., A mother endorses if the following statement is fully or partly true for her child: "Some kids *feel* that they are very good at school work") in addition to asking them what they think about how capable their children are (e.g., "Some kids are really slow in finishing their school work"). Thus, the mother-reported data we obtained not only capture mothers' perceptions of their children's capabilities but also their perceptions regarding how their children view their own abilities, including scholastic ones. In this sense, the measurement tool we used in this study is not exactly comparable with those used in previous ones (e.g., mothers rated how good their child was at math, science, social studies, reading, spelling, and English in the studies conducted by Pomerantz & Dong, 2006 and Räty, 2006). Keeping this measurement difference in mind, we argue that high-educated parents might be better at keeping track of their children's school success, but this does not necessarily make them better informants about how successful or smart their children *feel* themselves. Furthermore, since the previous studies reported lower academic outcomes and self-perception predicted by the mother-children discrepancy in academic aspirations (Lv et al., 2018) and academic expectations (Wang & Banner, 2014), it is possible to assume that parents' own thoughts, feelings, and hopes regarding their own children's future contributes or hinders their children's academic self-perception and school success.

Some limitations of the study should be acknowledged. First, De Los Reyes and Kazdin (2005) stated that the association between parental SES and multi-informant (e.g., parent-child) discrepancy in child psychopathology might be explained by other characteristics of the informants such as informants' well-being, which is compatible with the depression-distortion hypothesis (e.g., Chi & Hinshaw, 2002; Richters, 1992) and the relationship between the dyad (e.g., Treutler & Epkins, 2003). It is known that a low education level, particularly in a developing country like Turkey, brings a number of other stressors, including younger maternal age (e.g., Fox et al., 1995) and fewer economic resources and maternal psychopathology (e.g., Brody et al., 1994; Meyrose et al., 2018) that may challenge the mother-child relationship and affect the mothers' perception about her children. Since the current study was carried out as part of a larger project, the number of variables included in this study remained limited. Future studies that examine the role of cumulative stressors in mother-child perception discrepancy on child competence may provide more robust results. Furthermore, given the importance of multi-informant on assessing children's well-being and competence perceptions, fathers and teachers could also be part of larger examination.

Second, we focused on a specific developmental period, namely preadolescence (9 to 14 years), in this study. However, previous work revealed conflicting results: while in some studies, parent-child convergence was higher in preadolescence compared to adolescence (e.g., Tarullo et al., 1995), there was more concordance in parent-teenager dyads compared to earlier age groups in a different study (e.g., Reich et al., 1982). Future studies should target samples with a more comprehensive age range so that the level of multi-informant agreement can be compared across different developmental periods. Third, based on meta-analytic findings, De Los Reyes and colleagues (2015) argue that there might be within-person variations across contexts or time points of assessment. Our study was cross-sectional, and data were collected from May to November 2017, meaning that most of the respondents filled out the questionnaire during the summer holiday. Repeated assessments of children's self-perceptions about their competence, especially in academic domains, at different time points during the academic year would have enabled us to detect within-person variance over time.

Despite its limitations, our findings provide some implications for research and methodology. Our results support previous findings that are based on Western samples in which parents and their preadolescent children agree to a small to moderate degree regarding children's competence (Achenbach et al., 1987; De Los Reyes & Kazdin, 2005; Renk & Phares, 2004). They are also in line with previous literature that maternal characteristics are crucial predictors of mother-child perception discrepancy regarding the child's social-behavioral competence (e.g., Chi & Hinshaw, 2002; Rätty et al., 1999; Youngstrom et al., 2000). On the other hand, our findings revealed that the most considerable discrepancy was between the low-educated mothers' and their daughters' perceptions of the latter's social skills. In a non-WEIRD country such as Turkey in which strong kinship bonds and interdependence characterize the family among family members (Kağıtçıbaşı, 2017), the endorsement of more conventional parenting such as mothers' different parenting values (e.g., conformity; Yağmurlu et al., 2009); parenting practices (e.g., parent-centered parenting; Durgel et al., 2012), and emotion socialization (e.g., the use of punishing and reasoning; Altan-Aytun et al., 2013) is differed by maternal educational level. Therefore, it seems critical to study parents' socialization values and gender-differentiated upbringing practices in relation to parent-child perception discrepancy regarding the child's psychological and social-behavioural functioning. The question as to if implicit and explicit gendered messages parents and other caregivers convey to their parenting practices in the upbringing of their children widen or narrow down the perception discrepancy of the dyad in gender groups remains unanswered and deserves scientific attention.

It is also essential to acknowledge some methodological issues. Researchers use different techniques to calculate multi-informant discrepancy or agreement, which has been noted as a methodological issue (De Los Reyes et al., 2015). Whereas difference scores between the raters were used in studies (e.g., De Los Reyes et al., 2015), correlation coefficients were computed as indicators of multi-informants' agreement in some others (e.g., Achenbach et al., 1987; Berg-Nielsen et al., 2003). In this study, the agreement between mothers and pre-adolescents was examined using difference scores, and statistical significance was tested with the 95% confidence interval of the difference in means. Furthermore, the Generalized Linear Model repeated measure was used to analyze the moderation effect of variables such as maternal education and child gender on the agreement between mothers and their children.

Overall, the parent-child discrepancy in perceptions of the child's competence is a risk factor for the child's psychological wellbeing (Ferdinand et al., 2004; Ferdinand et al., 2006) as well as the overall functioning of the family (De Los Reyes & Kazdin, 2006; Grills & Ollendick, 2002). Also, since the mothers' early perceptions of their children's capabilities predicted their later self-perception more strongly than children's actual performance (e.g., Bleeker & Jacobs, 2004; Bois et al., 2002), their perception and the discrepancy between mothers and their children play an important role in their children's well-being through their self-perception. Our findings showed that the degree of agreement between Turkish mothers and their preadolescent children is low and mothers tend to underrate their children's social-behavioral competence and sense of self-esteem. Furthermore, since children's self-competence perception was associated with depressive symptoms (Kuzucu et al., 2013), this supports the importance of competence perception on mental well-being. For future research, we recommend that since parents' gender stereotypic beliefs and socialization goals are related to parental education (Endendijk et al., 2013; Yağmurlu et al., 2009) and child gender (Angold et al., 1987; Rapee et al., 1994; Reich et al., 1982) should be studied in relation to parent-child perception discrepancy to understand what factors hinder low-educated mothers and their preadolescent daughters from agreeing on what

they can and cannot do in social life. Also, it is essential to investigate further its relationship with adolescents' psychological adjustment and well-being to develop policies and programs to support children from lower economic backgrounds.

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