

The Mediating Role of the Interpersonal Schemas Between Parenting Styles and Psychological Symptoms: A Schema Focused View

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Abstract

Objective: The first aim of this study was to examine the relationships between perceived parenting styles and interpersonal schemas. The second purpose was to investigate the mediator role of interpersonal schemas between perceived parenting styles and psychological symptoms.

Method: University students (N=94), ages ranging between 17-26, attending to different faculty and classes, have completed Interpersonal Schema Questionnaire, Young Parenting Inventory and Symptom Check List-90.

Results: A series of regression analyses revealed that perceived parenting styles have predictive power on a number of interpersonal schemas. Further analyses pointed out that the mediator role of Hostility situation of interpersonal schemas between psychological symptoms and normative, belittling/criticizing, pessimistic/worried parenting styles on the mother forms (Sobel $z = 1.94-2.08$, $p < .01$); and normative, belittling/criticizing, emotionally depriving, pessimistic/worried, punitive, and restricted/emotionally inhibited parenting styles (Sobel $z = 2.20-2.86$, $p < .05-.01$) on the father forms of the scales.

Discussion: Regression analyses pointed out the predictive power of perceived parenting styles on interpersonal schemas. Moreover, the mediator role of interpersonal schemas between perceived parenting styles and psychological symptoms was also observed. Excluding pessimistic/anxious parenting styles, perceived parenting styles of mothers and fathers differed in their relation to psychological symptoms. In overall evaluation, we believe that, although schemas and parental styles have some universalities in relation to their impacts on psychological health, further research is necessary to address their implications and possible paternal differences in our collectivistic cultural context.

Key Words: Interpersonal Schemas, Parenting Styles, Psychological Symptoms

INTRODUCTION

A number of cognitive theorists have highlighted that the assessment of central cognitive characteristics related to fundamental schemas, such as self, interpersonal relationships, and context in which a person lives, is lacking (Safran, 1990; Hammen, 1992; Young et al., 1992). This emphasis on the need for expansion of the theoretical and conceptual framework of cognitive therapy has accelerated the development of schema-foc-

cused approaches. Despite terminological differences, the conceptualization of schemas is based on Bowlby's (1973) attachment theory and is defined as the representation of interactions between schemas and attachment figures (Safran et al., 1990; Young et al., 1992). In this vein Safran (1990) introduced the notion of the interpersonal schemas that incorporate an understanding of cognitive structures within an interpersonal context. He defined the interpersonal schemas as generalized rep-

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resentations of self-other relationships, or programs for maintaining relatedness. He also proposed that interpersonal schemas maintain themselves using the principle of complementarity (Kiesler, 1996). This theory attempts to explain the occurrence or maintenance of psychopathology in terms of a dysfunctional cognitive-interpersonal cycle (Safran and Segal 1998). Accordingly, people develop interpersonal schemas that are adaptive in a developmental context because the schemas permit the prediction of interactions with attachment figures. Unfortunately, these interpersonal schemas often fail to adapt to new circumstances because they continue to shape those interactions. Similarly, Young et al. (2003) proposed a schema therapy model that emphasized the importance of early childhood experiences in the development of maladaptive schemas later in life. They suggested that there are some universal emotional needs that must be met in childhood by caregivers in order to ensure psychological health and adjustment later in life. Accordingly, they proposed 5 core emotional needs: Secure attachments to others, autonomy, confidence and sense of identity, freedom to express valid needs and emotions, spontaneity and play, and realistic limits and self-control.

Authors have believed that early maladaptive schemas resulted from these unmet core emotional needs and crumbling early childhood experiences, specifically, when early maladaptive schemas are activated a critical childhood experience with parents may be enacted.

Studies based on the cognitive interpersonal approach—conducted both in the West and in Turkey—proposed the links between interpersonal schemas and psychopathology (Hill and Safran, 1994; Soygüt and Savaşır, 2001; Soygüt and Türkçapar, 2001). Similarly, a number of studies also pointed out (i) the relationship between parenting style and psychopathology (Sheffield et al., 2006; Çakır, 2007), (ii) the role of schemas in mediating between perceived parenting style and depressive symptomatology (Harris and Curtin, 2002), and (iii) the role of cognitive structures in mediating between parenting style and depression/anxiety-related symptomatology (McGinn et al., 2005).

The first aim of the present study was to examine the relationship between the perception of parenting styles and interpersonal schemas. The second purpose was to investigate the role of interpersonal schemas in mediating between the perception of parenting style and psychological symptoms.

METHOD

Participants

The study included 94 undergraduate students aged between 17 and 26 years that were enrolled in various departments at Hacettepe University—Faculties of Letters, Engineering, and Science, and the School of Sport Science and Technology. Mean age of the participants was 21.02 ± 1.72 years. In all, 73.3% of the participants were female and 26.7% were male.

Instruments

Demographic Form

Demographic data, including gender, age, and level of education were recorded.

Young Parenting Inventory (YPI)

YPI, developed by Young (1994), consists of 72 items intended to identify the potential origins of 17 early maladaptive schemas. Each item concerns perceptions of maternal and paternal behaviors during childhood and is rated on a 6-point Likert-type scale (1 = entirely untrue of me, 6 = describes me perfectly). Preliminary evidence regarding the psychometric properties of the original form indicated that it had acceptable levels of validity and reliability (Sheffield et al., 2006). Psychometric study of the Turkish version of the scale conducted by Soygüt et al. (in press) revealed a 10-factor structure for both the mother (the YPI-M) and father (the YPI-F) forms: Emotionally depriving, overprotective/anxious, belittling/criticizing, pessimistic/worried, normative, restricted/emotionally inhibited, punitive, conditional/achievement focused, over permissive/boundless, and exploitative/abusive parenting.

Interpersonal Schema Questionnaire (ISQ)

Hill and Safran (1994) developed the ISQ in order to assess the expectations that significant others will respond within a theoretically-guided domain of interpersonal behavior. The questionnaire consists of 16 scenarios based on 16 segments of the 1982 Interpersonal Circle (Kiesler, 1983), representing a circumplex model of interpersonal behavior that facilitates the prediction of behaviors in interpersonal interactions.

Participants respond to the 16 ISQ situations with reference to 3 significant others: mother (or mother figure), father (or father figure), and friend (romantic partner or close friend). For each scenario the participants are asked to imagine that they are behaving in a way that matched

the behavioral description from the Interpersonal Circle. Following this, they are asked how they thought the 3 significant others would respond to their behavior by choosing from among the 8 responses (reduced from the original 16 parts of the Circle to simplify the choice process). Participants also rate the desirability of the responses of the significant others on a scale of 1-7.

The data are scored to measure the interpersonal situations and desirability index. The interpersonal situations are recoded within each situation to represent their complementarity, ranging between -1 and 1. Positive scores represent the expectation of complementary responses and negative scores represent the expectation of non-complementary responses. These complementarity ratings are obtained for the 4 interpersonal situation subscales, each of which include 3 ISQ situations: Friendly, hostile, dominant and submissive. Total score for each subscale ranges between -3 and 3. The desirability of responses is scored between 0 and 7 using the participants' ratings of the desirability of each expected response to the 16 situations.

Psychometric studies conducted with both the original (Hill and Safran, 1994) and Turkish versions of the questionnaire (Boyacıoğlu and Savaşır, 1995) show that the scale has acceptable reliability and validity

Symptom Checklist-90-R (SCL-90-R)

SCL-90-R was developed by Derogotis (1977, 1994) (cited in Dağ, 1991, 2000) and its validity and reliability for use in Turkey was reported by Dağ (1991). SCL-90-R evaluates psychological and somatic symptoms, currently experienced stress, and the level of stress reaction. It is a self-report scale consisting of 90 items rated on a 5-point Likert-type scale (0 = not at all, 4 = extremely). The scale has 9 subscales that reflect 9 different symptom groups: Somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The scale also has 3 indices—the Global Severity Index (GSI), Positive Symptom Distress Index (PSDI), and Positive Symptom Total (PST)—and an additional scale that evaluates guilt, and eating and sleeping problems. Studies conducted with the original and Turkish versions of the inventory indicate that the instrument is valid and reliable. The scale has been used in several studies in Turkey.

Procedure

The volunteer participants completed the demographic form and counter-balanced scales in a classroom setting. The total pack of inventories took about 40-45

minutes to complete. The participants in the test-retest group were required to identify themselves using a number or nickname.

Statistical Analysis

In order to examine relationships between variables and to observe the steps that establish mediation, Pearson's product-moment correlation test was used. Multiple regression analysis was performed to examine the relationship between perceived parenting style (measured by the Turkish YPI) and general psychopathology (measured by SCL-90-R). Finally, a series of hierarchical regression analyses were conducted to examine the role of interpersonal schemas in mediating between perceived parenting style and psychological symptoms.

RESULTS

Regression Analyses Predicting the Relationship Between Perceived Parenting Styles and Interpersonal Schemas

Stepwise regression analyses were separately performed for both the mother and father forms of the Turkish YPI and ISQ, with the YPI subscales as the predictor variables and the ISQ subscales as the criterion variables. In accordance with the correlation results, 7 regression analyses were conducted. Pearson's correlation coefficients of the variables can be seen in Table 1. As there were no significant correlations between the ISQ-M dominant situation and the YPI subscales, the ISQ dominant situations were not included in the analyses.

Regression Analyses Predicting the Relationship Between Perceived Maternal Parenting Styles and Interpersonal Schemas

According to the analyses, the YPI overprotective/anxious parenting subscale scores positively predicted submissive situations ($F(1, 90) = 9.15, p < 0.01$), whereas the YPI punitive parenting subscale scores negatively predicted submissive situations ($F(2, 89) = 7.89, p < 0.001$). These subscales together explained 13% of the total variance. Furthermore, the YPI overpermissive/boundless parenting subscale scores negatively predicted friendly situations ($F(1, 91) = 9.04, p < 0.01$) and explained 8% of the variance. Finally, the YPI punitive parenting subscales scores ($F(2, 90) = 15.80, p < 0.001$) positively predicted hostile situations and together explained 24% of the variance.

TABLE 1. Correlations between perceived parenting style (YPI) and interpersonal schemas (ISQ).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Dominant	–	–.07	.05	–.14	–.09	–.006	–.10	–.14	–.08	–.24*	–.05	.12	.06	–.06
2. Submissive	–.18	–	–.11	–.02	.17	–.006	–.08	.13	.26*	.26*	.07	.16	.04	–.06
3. Friendly	.14	–.02	–	–.20	–.05	–.42**	–.39**	–.27*	–.04	–.10	–.04	–.08	–.10	–.20
4. Hostile	–.06	–.23*	–.16	–	.31**	.41**	.52**	.21*	–.003	.14	.18	.43**	.46**	.37**
5. Normative	–.1	–.09	–.01	.26*	–	.47**	.23*	.07	.42**	.48**	.02	.47**	.51**	.47**
6. Belittling/Criticizing	–.08	–.15	.05	.27**	.53**	–	.70**	.33**	.11	–.03	.41**	.38**	.59**	.29**
7. Emotionally Depriving	–.14	–.16	–.04	.32**	.26*	.65**	–	.35**	–.07	–.07	.29**	.31**	.51**	.34**
8. Exploitative/Abusive	.11	–.14	.05	–.05	.17	.32**	.04	–	.05	–.10	.37**	.07	.24*	.17
9. Overprotective/Anxious	–.07	.30**	–.002	.07	.31**	.10	–.07	–.12	–	.29**	.03	.35**	.24*	.12
10. Conditional/ Achievement Focused	–.09	.16	.09	.09	.50**	.14	–.007	.11	.19	–	–.05	.12	.19	.26*
11. Over Permissive/ Boundless	.05	–.10	–.30**	.16	.12	.38**	.23*	.25*	.07	–.01	–	.16	.24*	.003
12. Pessimistic/Worried	.12	–.17	–.05	.36**	.4	.36**	.34**	.09	.24	.21*	.15	–	.41**	.26*
13. Punitive	–.02	–.22**	.01	.47**	.39**	.59**	.49**	.26*	.07	.19	.17	.36**	–	.32**
14. Emotionally Inhibited/ Restricted	.04	–.10	–.003	.20	.48**	.25*	.30**	.02	.10	.28**	.05	.34**	.15	–

YPI: Young Parenting Inventory; ISQ: Interpersonal Schema Questionnaire. * $p < .05$; significant difference ** $p < .01$. Coefficients in bold refer to YPI-F and ISQ-F.

When beta coefficients were inspected it was observed that as the YPI overprotective/anxious parenting subscale scores increased, complementary scores for submissive situations increased. On the other hand, as the YPI punitive parenting subscale scores increased, complementary scores for submissive situations decreased, and as YPI overpermissive/boundless parenting scores increased, complementary scores for friendly situations decreased. Finally, as the YPI punitive and pessimistic/worried parenting subscale scores increased, complementary scores for hostile situations increased (Table 2 and 3).

Regression Analyses Predicting the Relationship Between Perceived Paternal Parenting Styles and Interpersonal Schemas

The results indicated that the YPI conditional/achievement focused parenting subscale scores negatively predicted dominant situations ($F(1, 90) = 5.25$, $p < 0.05$) and explained 4% of the variance. The YPI conditional/achievement focused parenting subscale scores also positively predicted submissive situations ($F(1, 89)$

$= 6.54$, $p < 0.01$) and explained 4% of the variance. Furthermore, the YPI belittling/criticizing parenting subscale scores negatively predicted friendly situations ($F(1, 90) = 18.98$, $p < 0.001$) and explained 16% of the variance. Lastly, The YPI emotionally depriving ($F(1, 90) = 34.02$, $p < 0.001$), conditional/achievement focused ($F(2, 89) = 19.64$, $p < 0.001$), and pessimistic/worried ($F(3, 88) = 16.78$, $p < 0.001$) parenting subscale scores positively predicted hostile situations and together explained 34% of the variance.

When beta coefficients were inspected it was observed that as the YPI conditional/achievement focused parenting subscale scores increased, complementary scores for dominant situations decreased and complementary scores for submissive situations increased. As the YPI belittling/criticizing parenting scores increased, complementary scores for friendly situations decreased. Finally, as the YPI emotionally depriving, conditional/achievement focused, and pessimistic/worried parenting subscales increased, complementary scores for hostile situations also increased (Table 2 and 3).

TABLE 2. Regression analyses predictive of the relationship between perceived parenting style (YPI) and interpersonal schemas (ISQ).

Mother Forms				
Criterion (ISQ-M)	Predictor (YPI-M)	β	T	F
Submissive	Overprotective/Anxious	.32	3.26**	9.15**
	Punitive	-.24	-2.47*	7.89***
Friendly	Over Permissive/Boundless	-.30	-3.00**	9.04**
Hostile	Punitive	.38	4.00***	25.44***
	Pessimistic/Worried	.22	2.24*	15.80***
Father Forms				
Criterion (ISQ-F)	Predictor (YPI-F)	β	T	F
Dominant	Conditional/Achievement Focused	-.24	-2.29*	5.25*
Submissive	Conditional/Achievement Focused	.26	2.56*	6.54*
Friendly	Belittling/Criticizing	-.42	-4.35***	18.98***
Hostile	Emotionally Depriving	.44	4.92***	34.02***
	Conditional/Achievement Focused	.14	1.66	19.64***
	Pessimistic/Worried	.26	2.82**	16.78***

ISQ-M: Interpersonal Schema Questionnaire-Mother Form; YPI-M: Young Parenting Inventory-Mother Form; ISQ-F: Interpersonal Schema Questionnaire-Father Form; YPI-F: Young Parenting Inventory-Father Form. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE 3. Summary table of regression analyses predictive of the relationship between perceived parenting style (YPI) and interpersonal schemas (ISQ).

YPI-M (Predictor)	ISQ-M (Criterion)
Overprotective/Anxious ↑	Submissive ↑
Punitive ↑	Submissive ↓
Over Permissive/Boundless ↑	Friendly ↓
Punitive ↑	Hostile ↑
Pessimistic/Worried ↑	Hostile ↑
YPI-F (Predictor)	ISQ-F (Criterion)
Conditional/Achievement Focused ↑	Dominant ↓
Conditional/Achievement Focused ↑	Submissive ↑
Belittling/Criticizing ↑	Friendly ↓
Emotionally Depriving ↑	Hostile ↑
Conditional/Achievement Focused ↑	Hostile ↑
Pessimistic/Worried ↑	Hostile ↑

YPI-M: Young Parenting Inventory-Mother Form; ISQ-M: Interpersonal Schema Questionnaire-Mother Form; YPI-F: Young Parenting Inventory-Father Form; ISQ-F: Interpersonal Schema Questionnaire-Father Form.

↑ = Increase, ↓ = Decrease.

The Mediating Role of Interpersonal Schemas Between Perceived Parenting Styles and Psychological Symptoms

In the next phase of the study, in order to investigate the mediator role of interpersonal schemas (ISQ) between perceived parenting style (YPI) and psychological symptoms (SCL-90-R), hierarchical regression analyses were performed. In particular, with hierarchical regression the significance of the decrease in beta coefficients of the predictor variables and the significance of the relationships between the mediating variables, and predictor and criterion variables were analyzed. The significance of the decrease in beta coefficients was evaluated using the Sobel test (Kenny et al., 1998).

Before establishing the mediation analyses, 4 criteria described by Baron and Kenny (1986) were controlled. Accordingly, as the first step a significant relationship between the independent variable and the dependent variable is required. Second, a significant relationship between the independent variable and the hypothesized mediating variable is required. Third, the mediating variable must be significantly related to the dependent variable when both the independent variable and medi-

ating variable are predictors of the dependent variable. Fourth, the coefficient relating the independent variable to the dependent variable must be larger (in absolute value) than the coefficient relating the independent variable to the dependent variable in the regression model, with both the independent variable and the mediating variable predicting the dependent variable.

Pearson's product moment correlation coefficients were used to inspect the first 2 criteria (Table 1). Accordingly, it was observed that the ISQ-M hostile situations would have a role in mediating between the YPI-M normative, belittling/criticizing, and pessimistic/worried subscales and psychological symptoms. In terms of the YPI-F, it was observed that the ISQ-F hostile situations would have a role in mediating between the YPI-F normative, belittling/criticizing, emotionally depriving, pessimistic/worried, punitive, and restricted/emotionally inhibited paternal subscale scores and psychological symptoms. To inspect the last 2 related criteria, 8 hierarchical regression analyses were conducted.

The Mediating Role of Interpersonal Schemas Between Perceived Maternal Styles and Psychological Symptoms

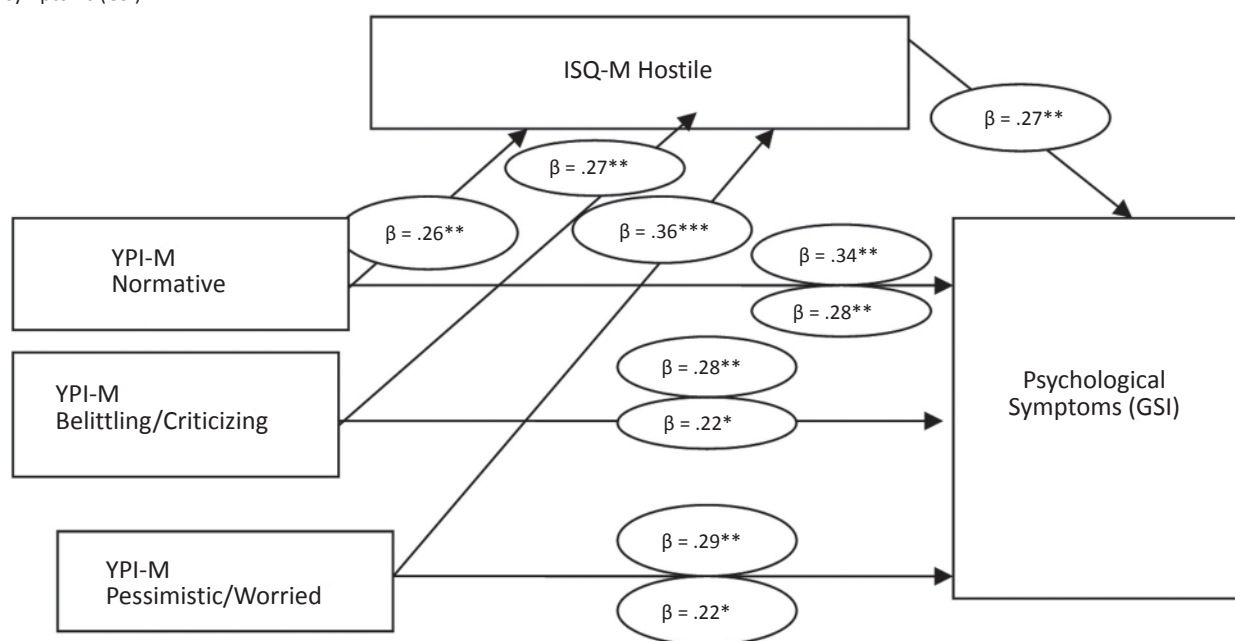
Results indicate that hostile situations had a mediating role between the YPI-M normative (Sobel $z = 1.94$, $p <$

0.01), belittling/criticizing (Sobel $z = 1.96$, $p < 0.01$), and pessimistic/worried (Sobel $z = 2.18$, $p < 0.01$) subscales and psychological symptoms. According to the results, as the perception of normative, belittling/criticizing, and pessimistic/worried maternal styles increased, complementary expectation in hostile situations increased, and psychological symptoms also increased. Beta coefficients of the variables can be seen in Figure 1.

The Mediating Role of Interpersonal Schemas Between Perceived Paternal Styles and Psychological Symptoms

Beta coefficients of the variables can be seen in Figure 2. According to the results, hostile situations had a mediating role between the YPI-F normative (Sobel $z = 2.20$, $p < 0.01$), belittling/criticizing (Sobel $z = 2.52$, $p < .05$), emotionally depriving (Sobel $z = 2.86$, $p < 0.05$), pessimistic/worried (Sobel $z = 2.68$, $p < 0.05$), punitive (Sobel $z = 2.80$, $p < 0.05$), and restricted/emotionally inhibited (Sobel $z = 2.38$, $p < 0.05$) subscale scores and psychological symptoms. The overall results indicated that as the perception of normative, belittling/criticizing, emotionally depriving, pessimistic/worried, punitive, and restricted/emotionally inhibited paternal styles increased, complementary expectation in hostile situations increased, and psychological symptoms increased.

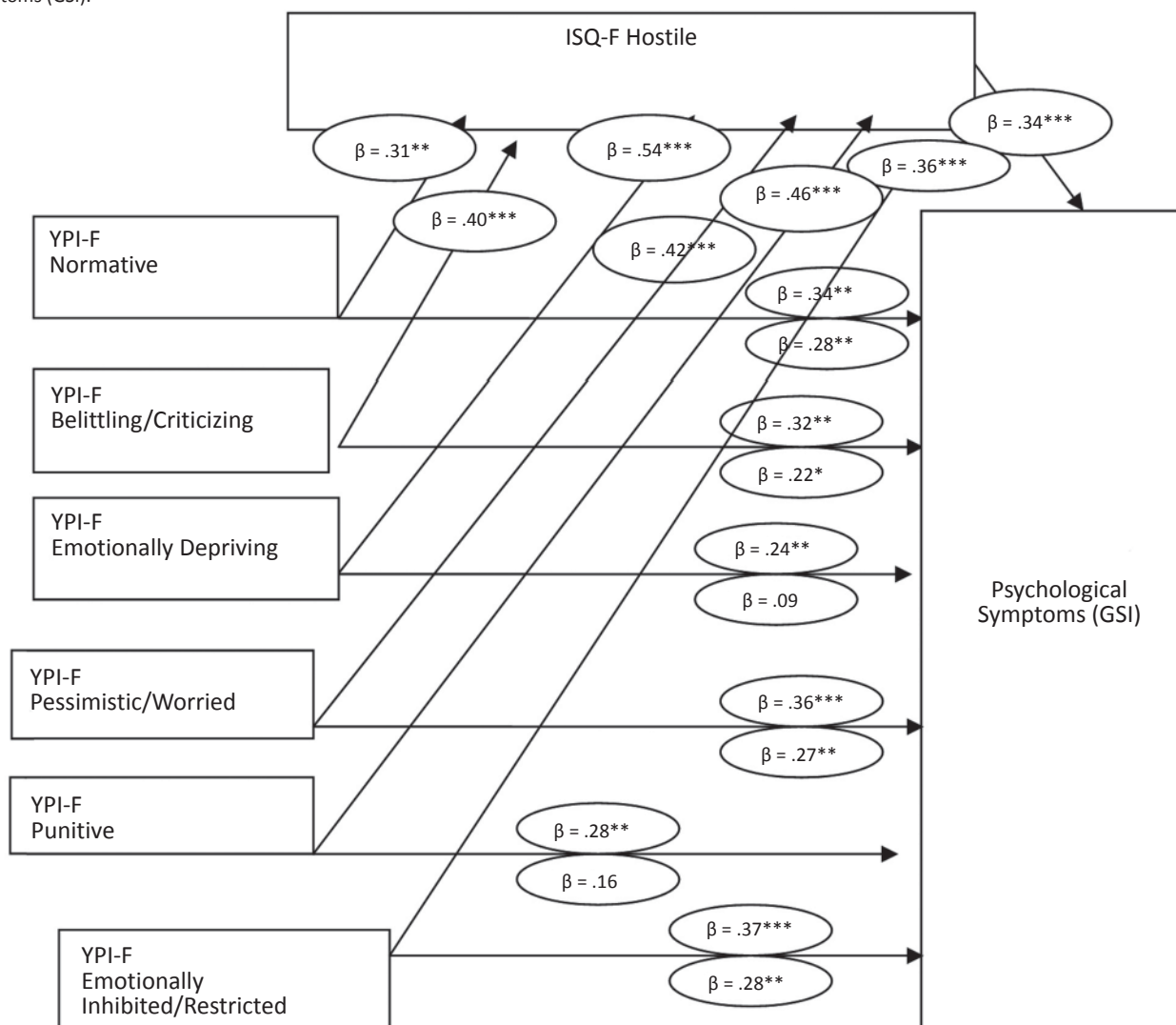
FIGURE 1. The role of interpersonal schemas (ISQ-M) in mediating between perceived maternal parenting styles (YPI-M) and psychological symptoms (GSI).



YPI-M: Young Parenting Inventory-Mother Form; ISQ-M: Interpersonal Schema Questionnaire-Mother Form; GSI: General Severity Index.

** $p < 0.05$: Significant Difference * $p < 0.01$, *** $p < 0.001$.

FIGURE 2. The role of interpersonal schemas (ISQ-F) in mediating between perceived paternal parenting styles (YPI-F) and psychological symptoms (GSI).



YPI-F: Young Parenting Inventory-Father Form; ISQ-F: Interpersonal Schema Questionnaire-Father Form; GSI: General Severity Index.
 ** $p < 0.05$, * $p < 0.01$, *** $p < 0.001$.

DISCUSSION

Overall, evaluation of the findings generally indicated the predictive power of parenting styles on interpersonal schemas. Furthermore, the results also provided some support for the possible role of the interpersonal schemas in mediating between parenting style and psychological symptoms. To the best of our knowledge this is the first study to examine the relationship between interpersonal schemas and parenting style; therefore, the discussion has been limited to an evaluation of our findings and theoretical expectations, relevant literature that examined the related variables, and clinical observations.

Based on the evaluations of maternal styles, individuals that perceived their mothers as overprotective/anxious

reported a high level of expectation of complementary responses in submissive situations. This suggests that these individuals expected support from their mothers when they needed it. This pattern was related to a functional interpersonal cycle in previous studies (Hill and Safran, 1994; Soygüt and Savaşır, 2001). Accordingly, this finding seems to be incongruent with both previous research findings and theoretical expectations proposed by Young et al. (2003). At this point, it might be thought that an overprotective/anxious parenting style could be perceived as functional in Turkey's collectivistic society; however, we retreat this interpretation based on findings showing that there is a positive relationship between this parenting style and psychological symptoms, which also parallels our clinical observations. Therefore, rather than

relying on the cultural context, we preferred to interpret this finding in terms of our clinical observations. During the assessment phase of a psychotherapeutic process, patients are more likely to report an overprotective parenting style as positive, and may not be aware of the link between their current problems and this parenting style. Accordingly, this interpersonal schema referring to the expectation of support from a parent may be reflective of an overprotective parenting style. This speculative interpretation must be further examined.

The following findings seem to be more consistent with the existing literature. Individuals that perceived their mothers as punitive reported a low level of expectation of complementary responses in submissive situations. This suggests that these individuals have an interpersonal schema in which they are not in control over their relationships. Hill and Safran (1994) hypothesized that this pattern might be associated with both experiences of interpersonal impotence and with the anticipation of abandonment in the face of interpersonal need. As for the affiliation dimension of the interpersonal schemas, individuals that perceived their mothers as overpermissive/boundless were less likely to report an expectation of complementary responses in friendly situations. In other words, they do not expect friendly responses from their mothers, even though they approached them in a friendly manner. Consistently, individuals that perceived their mothers as punitive and pessimistic/worried were more likely to report an expectation of complementary responses in hostile situations. Accordingly, they expect hostile responses from their mothers when they approach them in a hostile fashion. These interpersonal schema patterns were observed to be associated with the results of the previous studies conducted in Turkey that examined the relationship between psychological symptoms and interpersonal schemas (Soygüt and Türkçapar, 2001; Soygüt and Savaşır, 2001). Thus, our findings seem to be congruent with the theoretical framework and provided some support to previous research.

Regarding examinations related to paternal styles, individuals that perceived their fathers as conditional/achievement focused were less likely to report an expectation of complementary responses from them in dominant situations. In other words, they do not expect submissive responses from their fathers when they approach them in a dominant manner; however, they were more likely to report an expectation of complementary in submissive situations. Accordingly, they expect dominant responses from their fathers when they approach them in a submissive manner. These interpersonal schema pat-

terns related to submissive situations, which means there is positive relationship between dysfunctional parenting style and a functional interpersonal schema pattern, seem to be incongruent with theoretical expectations (e.g. Hill and Safran, 1994; Young et al., 2003). This result is understandable, assuming that fathers with a conditional/achievement focused parenting style may be more likely to exhibit dominant interpersonal behaviors. As the complementary of submissive situations refers to a need of leaving control to others, this mentioned parenting style may be a reflection of not conflicting but meeting of these needs. In terms of the affiliation dimension, individuals that perceived their fathers as belittling/criticizing were less likely to expect complementary responses from them in friendly situations. This suggests that these individuals do not expect friendly responses from their fathers, even though they approach them in a friendly manner. On the other hand, individuals that perceived their fathers as emotionally depriving, conditional/achievement focused, and pessimistic/worried were more likely to expect complementary responses from them in hostile situations. This suggests that they expect hostile (e.g. quarrelsome, cold, distant) responses when they approach them in a hostile fashion.

In general, the aforementioned patterns seem to be consistent with theoretical assumptions emphasizing the links between parenting style and the development of dysfunctional schemas (Safran, 1990; Young et al., 2003), and they support the findings of previous studies (Soygüt and Savaşır, 2001; Soygüt and Türkçapar, 2001; Haris and Curtin, 2002; Sheffield et al., 2005). As for the evaluation of the findings related to the mediating role of interpersonal schemas, it was observed that the complementarity of hostile situations may have played a mediating role in the relationship between the perception of mothers as normative, belittling/criticizing, and pessimistic/worried, and psychological symptoms. This suggests that if individuals perceive these parenting styles in their mothers and develop an interpersonal schema reflecting the complementarity of hostile situations, they might be more likely to exhibit psychological symptoms later in life. Considering perceptions of the father's parenting styles, it was observed that the complementarity of hostile situations may have played a mediating role in the relationship between the perception of fathers as normative, belittling/criticizing, emotionally depriving, pessimistic/worried, punitive, and restricted/emotionally inhibited and psychological symptoms. This suggests that if individuals perceive these parenting styles in their fathers and develop an interpersonal schema reflecting the complementarity of hostile situations, they

might be more likely to exhibit psychological symptoms later in life. In general, the present study supports previous research indicating that schemas and cognitive structures may play a mediating role between parenting style and anxiety/depression-related symptoms (Harris and Curtin, 2002; McGinn et al., 2005). More specifically, the present study highlighted the mediating role of the complementarity of hostile situations. A speculative interpretation might be that the formation of a dysfunctional schema pattern is important in the process of having a psychological problem in adult life because of a dysfunctional parenting style. In the present study this observation is limited only to the complementarity of hostile situations. One possibility is that the complementarity of hostile situations might have greater predictive power than other interpersonal situations. Another possibility is that this finding might have stemmed from limitations of the study. Sheffield et al. (2005) reported that a wide range of schemas was significantly related to the previously mentioned variables. In order to fully assess whether the observed significant relationships were peculiar to hostility situations or were more widespread, further examination of these variables in clinical samples is crucial.

Another striking finding of the present study is that a

pessimistic/worried parenting style was the only common factor for mothers and fathers. This raises the question of whether there is a different route for each parent in developing dysfunctional parenting styles in the development of dysfunctional schemas and psychological symptoms. This is another crucial issue to examine further.

Limitations of the present study are that the study was conducted on a limited number of undergraduate sample and assessments were limited to self-reports. Furthermore, as Kağıtçıbaşı (2007) suggested, parenting styles that have a determining role in self-development must be evaluated in a sociocultural context. Although our study could not focus on cultural aspects, we think that further research is necessary to examine the implications of these findings in the context of Turkey's collectivist culture.

In conclusion, our findings generally support the relationship between parenting styles and schemas, and the possible mediating role of schemas. In other words, this study emphasized the importance of early childhood experiences, namely, schema-focused approaches. These preliminary findings should be replicated in clinical samples, and interpreted with respect to cultural context and change processes by further research.

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