

The Mediation Role of the Socialization in the Relationship between Family Functioning and Suicidal Tendency

Aile İşlevselliği ile İntihar Eğilimi Arasındaki İlişkide Sosyalizasyonun Aracılık Rolü

Turgut Türkdoğan 

Abstract. The aim of the current study is to examine the mediator role of socialization process including perceived social support and antisocial behaviors in the relationship between family functioning and suicidal tendency in a nonclinical sample of college students. A total of 594 (60.4% female, 39.6% male) participants completed the Family Adaptability and Cohesion Scale IV, the Risk Behaviors Scale, and the Multidimensional Scale of Perceived Social Support. Structural equation modeling was used to examine the mediator role of socialization process, which begins in family context and extends to interpersonal relations in life. The findings indicated that perceived social support and antisocial behaviors exhibited partial mediation in the relationship between family functioning and suicidal tendency. Consequently, both direct and indirect effects of family functioning significantly predicted suicidal tendency, and the mediation model significantly predicted suicidal tendency with a large effect.

Keywords. family functioning, perceived social support, antisocial behaviors, suicidal tendency, the circumplex model of marital and family systems.

Öz. Bu çalışmanın amacı, aile işlevselliği ile intihar eğilimi arasındaki ilişkide, algılanan sosyal desteği ve antisosyal davranışları içeren sosyalizasyon sürecinin aracılık rolünü incelemektir. Üniversite öğrencilerinden oluşan klinik olmayan bir örneklemede yürütülen araştırmada, 594 katılımcı (%60.4 kadın, %39.4 erkek) Aile Uyum Yeteneğini ve Birliğini Değerlendirme Ölçeği IV, Riskli Davranışlar Ölçeği ve Çok Boyutlu Algılanan Sosyal Destek Ölçeğini tamamlamışlardır. Aile sisteminde başlayıp yaşamdaki kişilerarası ilişkilere uzanan sosyalizasyon sürecinin aracılık rolü yapısal eşitlik modellemesiyle incelenmiştir. Bulgular, aile işlevselliği ile intihar eğilimi arasındaki ilişkide algılanan sosyal desteğin ve antisosyal davranışların kısmi aracılık rolü üstlendiğini göstermektedir. Sonuç olarak, aile işlevselliğinin intihar eğilimi üzerindeki doğrudan ve dolaylı etkileri anlamlı bulunmuş; bir bütün halinde değerlendirildiğinde, aracılık modeli intihar eğilimini geniş bir etki büyüklüğüyle yordamıştır.

Anahtar Kelimeler. aile işlevselliği, algılanan sosyal destek, antisosyal davranışlar, intihar eğilimi, evlilik ve aile sistemleri dairesel modeli.

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Suicide is a serious mental health problem involving an irreversible process that could result in death, and it is the second cause of death among young people aged between 15 to 29 years old around the world (World Health Organization, 2014). Suicide studies predominantly refer to clinical cases accompanied by severe mental health disorders including depression, bipolar disorder, or substance abuse (Brown, Beck, Steer, & Grisham, 2000; Hawton & van Heeringen, 2009). However, suicide is the last and irreversible phase of this worsening process including a generalized sense of loneliness, hopelessness, anxiety, and negative self-evaluation (Beck, Steer, Kovacs, & Garrison, 1985; Brown et al., 2000; Cull & Gill, 1988). In view of that, the term *suicidal tendency* defines the general attractions or repulsions towards life and death, and people in normative samples actually exhibit specific tendencies towards suicide (Orbach et al., 1991). In other words, suicidal tendency refers to a wide range of negative attitudes towards life, which are not directly involve the intention of death and can be commonly observed in nonclinical samples (Joiner, 2005; Orbach et al., 1991; Van Orden et al., 2010; You et al., 2011). Therefore, identifying the predictors of the negative attitudes towards life in normative samples can be considered as an important issue for preventive interventions of suicidal tendency (Joiner, 2005; Van Orden et al., 2010). At this juncture, one of the most prominent psychological approaches focusing on suicidal tendency strongly emphasizes the quality of interpersonal relationships in the process of human socialization (Joiner, 2005; Van Orden et al., 2010; You et al., 2011). Interpersonal theory assumes that human beings exist with an innate orientation to establish social and emotional bonds with others, and the quality of psychological well-being originally depends on healthy interpersonal relations including belonging, perceived support, acceptance or warmth dimensions (Weissman, Markowitz, & Klerman, 2000). Specifically, the poor quality of interpersonal relations including conflicts, rejection, isolation, thwarted belongingness, and perceived burdensomeness are deemed as the prominent risk factors within the scope of interpersonal theory of suicide (Joiner, 2005; Van Orden et al., 2010; You et al., 2011). In the light of this theoretical perspective, preventive interventions of suicide essentially refer to enhancing the quality of relations with family members, friends, and other significant people in life (Compton, Thompson, & Kaslow, 2005; Rajalin, Hirvikoski, Renberg, Asberg, & Jokinen, 2017; Rapp, Lau, & Chavira, 2017; Van Orden et al., 2010; You et al., 2011). In this context, the scope of current study aims to focus on the role of

socialization process, which begins in family context and extends to interpersonal relations in life.

Originally, family is the first social context in which the quality of interpersonal relations is predominantly shaped (Bowlby, 1988; Rohner, Khaleque, & Cournoyer, 2005; Weissman et al., 2000), and family functionality is deemed as a robust predictor of suicidal tendency (Evans, Hawton, & Rodham, 2004; Frey, Hans, & Sanford, 2016; Van Orden et al., 2010). As a result of the review of more than 50 concepts suggested by different theories of family functioning, Olson and colleagues conceptualized two major dimensions defining a healthy family functioning as: *balanced cohesion* and *balanced flexibility/ adaptability* within the scope of *Circumplex Model of Marital and Family Systems* (Olson, 2011; Olson & Gorall, 2006; Olson, Sprenkle, & Russell, 1979). Cohesion defines the supportive nature of the relationship between family members including emotional bonding, intimacy, caring, and loyalty (Hamilton & Carr, 2016; Olson & Gorall, 2006). However, extremely low level of cohesion named as *disengaged* or extremely high level of cohesion named as *enmeshed* are deemed as unhealthy dimensions for the family functioning (Hamilton & Carr, 2016; Olson, 2011). Additionally, flexibility defines the regulatory nature of the family system including clear rules, stable roles, democratic leadership, and reasonable disciplinary practices (Olson, 2011; Olson & Gorall, 2006). Also, the extremely low level of flexibility named as *chaotic* or the extremely high level of flexibility named as *rigid* are deemed as unhealthy dimensions for the family functioning (Hamilton & Carr, 2016; Olson, 2011). Even in families with healthy functioning, there may be modest forms of unhealthy dimensions (Olson, 2011; Olson & Gorall, 2006), and the ratio of healthy dimensions to unhealthy dimensions is considered as the main indicator of the healthy functioning of family (Olson, 2011; Olson & Gorall, 2006; Olson, Gorall, & Tiesel, 2007). Consequently, the Circumplex Model is one of the most prominent systemic models investigating family functioning worldwide (Hamilton & Carr, 2016; Kouneski, 2002), and the Circumplex Model-based studies refer to a comprehensive research area comprising more than 1.200 studies around the world (Kouneski, 2002). The research results support the hypotheses emphasizing the balanced levels of cohesion and flexibility in terms of healthy family functioning (Kouneski, 2002; Olson, 2011), and the results specifically show that unbalanced forms of family in terms of cohesion and flexibility significantly predict suicidal tendency (Compton et al., 2005; Gau et al,

2008; Lucey & Lam, 2012; Sheftall, Mathias, Furr, & Dougherty, 2013; Summerville, Kaslow, Abbate, & Cronan, 1994).

On the other hand, although the process of socialization originally begins in the family context, this process cannot be solely limited to the quality of relations with family members. Essentially, the interpersonal approach claims that the perception of the quality of relations within the family system will be reflected in relations with other significant people in life as a consistent interpersonal pattern through internal working models (Bowlby, 1988; Rohner, Melendez, & Kraimer-Rickaby, 2008; Weissman et al., 2000). Thereby, family functionality does not only have significant effects on suicidal tendency, it may also have significant effects on social relations with others, and family functionality can be regarded as an important context in the development of the attitudes towards people among the socialization process (Bugental, 2000; Grusec & Davidov, 2010; Maccoby, 1992).

The term *socialization* defines the process of acquiring necessary skills and values to establish close relationships with others, and also to avoid disruptive and irresponsible behaviors towards other people in society (Maccoby, 1992). Accordingly, first section of the definition that includes establishing close relationships with others can be considered with the term *perceived social support*, which defines the tendency to perceive other people as close, supportive or negatory in social life (Brewin, 1995; Sarason et al., 1991). Additionally, second section of the definition that includes avoiding disruptive and irresponsible behaviors towards other people in society can be considered with the term *antisocial behaviors*, which defines improper behaviors that violate social norms and are characterized by disrespect to the rights of others (Hopwood et al., 2009).

Perceived social support can be considered as a significant variable positively affected by family functioning in regard to the attitudes towards people within the social relations. Social support is defined as the individual perception of the quality of social, emotional, instrumental, or informational assistance received from other people in life (Cutrona & Russell, 1987), and it definitely shows significant associations with mental health outcomes (Cohen, 2004; Wang, Wu, & Liu, 2003). Similarly, the lack of the social support including isolation, loneliness, and social withdrawal is deemed as the strongest predictor of suicidal tendency in interpersonal theory (Joiner, 2005; Van Orden et al., 2010; You et

al., 2011). Actually, perceived social support depends on subjective perception rather than objective perception of the received assistance by the individual (Brewin, 1995; Haber, Cohen, Lucas, & Baltes, 2007), and individuals have an internal tendency to perceive other people in social life as supportive or negatory, and this subjective perception exhibits a consistent pattern throughout time by means of internal working models (Brewin, 1995; Rohner et al., 2008; Sarason et al., 1991). Therefore, balanced forms of family functioning including supportive relations and well-organized roles between family members can be regarded as an important context for perceived social support from friends or other significant people in the social environment. Additionally, perceived social support, which is deemed as a robust predictor of suicidal tendency, may exhibit a mediator role in the relationship between family functioning and suicidal tendency.

On the other hand, antisocial behaviors can be considered as a significant variable negatively affected by family functioning in regard to suicidal tendency (Lecomte & Fomes, 1998; Marttunen, Aro, Henriksson, & Lönnqvist, 1994; Martens, 2001). Antisocial behaviors are the disruptive and irresponsible behaviors that violate social norms and are characterized by disrespect to the rights of others (Hopwood et al., 2009). Although genetic influences and personality traits have important roles in the development of antisocial behaviors (Hopwood et al., 2009; Werner, Few, & Bucholz, 2015), the quality of family functioning and parent-child relationships show significant associations with antisocial behaviors (Martens, 2001; Marttunen et al., 1994). In this context, antisocial behavior is considered as a poor and dysfunctional mechanism to cope with anxiety among persons without skills to solve problems properly in terms of social adaptation (Goodwin & Hamilton, 2003; Hopwood et al., 2009; Martens, 2001). Thereby, balanced levels of cohesion including supportive emotional bonds between family members, and balanced levels of flexibility including clear rules and reasonable disciplinary practices within the family system can be regarded as protective factors in terms of antisocial behaviors. On the other hand, unbalanced forms of cohesion and flexibility can be regarded as important risk factors in the development of antisocial behaviors in the socialization process. Furthermore, antisocial behaviors, which is deemed as a significant predictor of suicidal tendency, may exhibit a mediator role in the relationship between family functioning and suicidal tendency.

In summary, the interpersonal theory assumes that family functionality has direct effects on suicidal tendency. Additionally, the balanced levels of cohesion including supportive emotional bonds between family members, and the balanced levels of flexibility including clear rules and reasonable disciplinary practices within the family system can be regarded as protective factors in terms of socialization process. Accordingly, investigation of the predictors of suicidal tendency within a coherent conceptual framework using an interpersonal theory perspective may offer theoretical contributions to the literature for preventive interventions in normative samples. However, no research finding has been reported in the literature that specifically investigates the role of perceived social support and antisocial behaviors in mediating the relationship between family functioning and suicidal tendency. Consequently, the aim of the current study is to investigate the mediator role of socialization process including perceived social support and antisocial behaviors in the relationship between family functioning and suicidal tendency in a nonclinical sample of college students. The research hypotheses examined in line with this purpose are as follows: Firstly, it was hypothesized that family functioning will negatively predict suicidal tendency. Additionally, it was hypothesized that family functioning will positively predict perceived social support, and negatively predict antisocial behaviors. Finally, it was hypothesized that standardized regression coefficient between the family functioning and suicidal tendency will decrease to a lower value with the addition of perceived social support and antisocial behaviors to the structural equation model.

METHOD

The Research Sample

The data were collected from 594 (60.4% female, 39.6% male) participants with an age mean of 20.31 ($SD = 1.93$) chosen by convenience sampling method among the students who were studying at the Faculty of Education and the Faculty of Science and Letters at the central campus of a public university in Turkey. Accordingly, the margin of error was 4% and the confidence level was 95% for the research population of 55,000 students in Pamukkale University (Krejcie & Morgan, 1970). The descriptive statistics of the demographic variables are presented in Table 1.

Table 1. Descriptive Statistics of the Demographic Variables (N =594)

		N	Percent	Range	Mean	SD																																																																																																																																								
Gender of the participants	Female	359	60.4%	.00 - 1.00	.40	.49																																																																																																																																								
	Male	235	39.6%				Age of the participants	18	44	7.4%	18.00 - 43.00	20.31	1.93	19	131	22.1%	20	196	33.0%	21	145	24.4%	22	45	7.6%	23	17	2.9%	Marital status of the parents	24 and more	16	2.8%	.00 - 1.00	.09	.29	Married	539	90.7%	Family type	Divorced	55	9.3%	1.00 - 4.00	2.04	.46	Extended family	46	7.7%	Nuclear family	486	81.8%	Single-parent family	56	9.4%	Educational level of the mother	Parentless family	6	1%	1.00 - 6.00	3.73	1.22	Illiterate	29	4.9%	Literate	17	2.9%	Primary school	263	44.3%	Middle school	111	18.7%	High school	120	20.2%	Educational level of the father	University	54	9.1%	1.00 - 7.00	4.31	1.26	Master/ Doctorate	-	-	Illiterate	7	1.2%	Literate	13	2.2%	Primary school	186	31.3%	Middle school	107	18.0%	Number of children in the family	High school	145	24.4%	1.00 - 7.00	2.66	1.01	University	134	22.6%	Master/ Doctorate	2	.3%	Only child	30	5.1%	Two children	290	48.8%	Income level of the family	Three children	174	29.3%	1.00 - 4.00	2.37	.86	Four Children	51	8.6%	Five or more children	49	8.3%	Under a minimum wage	73	12.3%	Income level of the family	Between one or two minimum wages	301	50.7%	1.00 - 4.00	2.37	.86	Between two or three minimum wages	145
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Instruments

Family Adaptability and Cohesion Scale IV (FACES IV). FACES IV is an individual self-report scale assessing the perceived family functioning in terms of cohesion and flexibility (Olson, 2011; Olson et al., 2007). The Turkish adaptation of the scale was carried out by Turkdogan, Duru, and Balkis (2018). The construct validity of cohesion that includes *balanced cohesion* (e.g. “Family members are supportive of each other during difficult times, item13”), *enmeshed* (e.g. “We spend too much time together, item3”), and *disengage* (e.g. “Family members seem to avoid contact with each other when at home, item9”) dimensions was successfully confirmed within the current study [$\chi^2 (N = 594) = 377.34, p < .0001; \chi^2/df = 2.57; GFI = .94; AGFI = .92; CFI = .94; RMSEA = .051; SRMR = .062$]. Cronbach-alpha coefficients were .85 for the balanced cohesion dimension, .70 for the enmeshed dimension and .78 for the disengage dimension in the current study. Also, the construct validity of flexibility that includes *balanced flexibility* (e.g. “Our family tries new ways of dealing with problems, item2”), *rigid* (e.g. “There are strict consequences for breaking the rules in our family, item5”), and *chaotic* (e.g. “We never seem to get organized in our family, item6”) dimensions was successfully confirmed within the current study [$\chi^2 (N = 594) = 281.90, p < .0001; \chi^2/df = 3.32; GFI = .94; AGFI = .92; CFI = .93; RMSEA = .063; SRMR = .061$]. Cronbach-alpha coefficients were .83 for the balanced flexibility dimension, .77 for the rigid dimension, and .70 for the chaotic dimension in the current study. The items are evaluated with a 5-point Likert scale, and the scale presents a circular ratio that includes the combined evaluation of family functioning by dividing the balanced dimensions into unbalanced dimensions (Olson et al., 2007; Olson, 2011): *Cohesion Ratio* = [Balanced Cohesion] / [(Disengaged + Enmeshed) / 2]; *Flexibility Ratio* = [Balanced Flexibility] / [(Rigid + Chaotic) / 2]; *Circumplex Total Ratio* = [(Cohesion Ratio + Flexibility Ratio) / 2]. Thus, the higher level of circumplex total ratio refers to a more balanced family functioning (Olson, 2011).

Multidimensional Scale of Perceived Social Support (MSPSS). The scale aims to assess the level of support that individuals perceive from social resources that includes family, friends, and other significant people in life (Zimet, Dahlem, Zimet, & Farley, 1988). The Turkish adaptation of the scale was carried out by Eker, Arkar, & Yaldız (2001). The items are evaluated with a 7-point Likert scale,

and the two-factor model of social support that includes *friend support* (e.g. “I have friends with whom I can share my joys and sorrows. item9”) and *significant other support* (e.g. “There is a special person in my life who cares about my feelings, item10”) was successfully confirmed within the current study [χ^2 (N = 594) = 23.27, $p < .0001$; $\chi^2/df = 1.37$; GFI = .99; AGFI = .98; CFI = .99; RMSEA = .025; SRMR = .011]. Cronbach-alpha coefficients were .91 for the friend support dimension and .97 for significant other support dimension in the current study.

Risk Behaviors Scale (RBS). The scale was developed by Genctanirim (2014) to assess the level of risk behaviors that endanger the lives of university students based on *Problem Behavior Theory* (Jessor & Jessor, 1977). The items are evaluated with a 5-point Likert scale, and *antisocial behaviors* and *suicidal tendency* sub-scales were used within the scope of study. Antisocial behaviors sub-scale consists of ten items (e.g. “Sometimes I take the belongings of others without permission, item3”; “I assert my rights by fighting, item5”; “When I argue with someone, I swear unreservedly, item6”; “I do not care about the injury I give people around me, item9”; “I like to annoy people, item10”). Cronbach-alpha coefficient was .79 for the antisocial behaviors dimension in the current study. Construct validity was successfully confirmed for antisocial behaviors within the current study [χ^2 (N = 594) = 97.55, $p < .0001$; $\chi^2/df = 3.36$; GFI = .97; AGFI = .94; CFI = .94; RMSEA = .063; SRMR = .043]. Suicidal tendency sub-scale consists of twelve items (e.g. “I wake up unhappy in the morning, item30”; “I feel helpless against my problems, item31”; “I do not enjoy anything I do, item32”; “I fill alone, item33”; “I am sick of living, item34”; “Sometimes I don't feel I belong to this world, item39”). Also, construct validity was successfully confirmed for suicidal tendency within the current study [χ^2 (N = 594) = 145.89, $p < .0001$; $\chi^2/df = 2.98$; GFI = .96; AGFI = .93; CFI = .97; RMSEA = .058; SRMR = .031]. Cronbach-alpha coefficient was .92 for the suicidal tendency dimension in the current study.

Procedure

After acquiring the ethical permission procedure, data were gathered in the spring semester of the 2017-2018 academic year from the voluntarily participating students. Data were gathered by means of a paper survey in a time frame of two weeks.

Data Analyses

Structural equation modeling was used to analyze the structural relationships between research variables, and the estimation method was *maximum likelihood* for the analyses (Jöreskog & Sörbom, 1993). Also, the statistical significance of the indirect effects of the variables in the structural equation model were examined using *bootstrap analysis* (Arbuckle, 2007), and the number of bootstrap replication was determined as 10,000 within the current study. Additionally, *confirmatory factor analyses* (CFA) were used to examine the construct validity of the scales before the analysis of the structural model, and the analyses were performed via Analysis of Moment Structures (AMOS) statistical program. Moreover, the descriptive statistics of the data were examined using Statistical Package for the Social Sciences (SPSS) statistical program.

FINDINGS

Missing data under 5% for an individual case was ignored, and the missing values were imputed by the mean substitution method. Outliers were examined by means of z-scores that ranged between -3 and +3, and normal distribution assumption was checked through skewness coefficients that ranged between -1 and +1. There were only eight values that exceeded the +3 limit on the z-score, and the majority of these values were around the 3.10 limit. Furthermore, since the coefficient of skewness of the normal distribution is within acceptable limits, these values were deemed tolerable for the data set. Thus, preliminary assumptions (sample size, linearity, normality, multicollinearity, homoscedasticity, independence of the error terms, and normality of the error distribution) were checked and met before the analyses (Jöreskog & Sörbom, 1993; Hair, Black, Babin, & Anderson, 2014). The descriptive statistics of the research variables are presented in Table 2, and Pearson correlation coefficients between research variables are presented in Table 3.

Table 2. Descriptive Statistics of the Research Variables (N = 594)

	N	Range	M	SD	Skewness Statistic	SE
Circumplex Total Ratio	594	.31 – 4.92	2.12	.77	.63	.10
Cohesion Ratio	594	.34 – 5.00	2.00	.67	.92	.10
Flexibility Ratio	594	.27 – 5.00	2.25	1.00	.66	.10
Perceived Social Support	594	1.00 - 7.00	5.20	1.43	-.51	.10
Friend Support	594	1.00 - 7.00	5.66	1.31	-1.09	.10
Significant Other Support	594	1.00 - 7.00	4.73	2.20	-.47	.10
Antisocial Behaviors	594	1.00 – 3.70	1.72	.53	.86	.10
Suicidal Tendency	594	1.00 – 4.92	2.03	.79	.93	.10

Table 3. Pearson Correlation Coefficients Between Research Variables (N = 594)

	1	2	3	4	5	6	7	8
1. Circumplex Total Ratio	-							
2. Cohesion Ratio	.89**	-						
3. Flexibility Ratio	.95**	.71**	-					
4. Perceived Social Support	.18**	.14**	.19*	-				
5. Friend Support	.26**	.22**	.26**	.68**	-			
6. Significant Other Support	.08*	.05	.10*	.90**	.29**	-		
7. Antisocial Behaviors	-.25**	-.22**	-.24**	-.04	-.09*	.00	-	
8. Suicidal Tendency	-.42**	-.37**	-.40**	-.34**	-.35**	-.23*	.28**	-

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

The measurement model was defined by means of latent and observed variables, and item parceling method was used with confirmed total scores (Matsunaga, 2008). Also, the measurement model that includes latent and observed variables was successfully confirmed before the structural equation analysis [$\chi^2 (N = 594) = 64.04, p < .0001; \chi^2/df = 2.21; GFI = .98; AGFI = .96; CFI = .98; RMSEA = .045; SRMR = .029$]. Finally, the structural equation analysis was performed to investigate the mediator role of perceived social support and antisocial behaviors in the relationship between family functioning and suicidal tendency, and the results of the model is presented in Figure 1.

The results indicated that family functioning, perceived social support, and antisocial behaviors significantly predicted suicidal tendency with a large effect [$R^2 = .44$; $\chi^2 (N = 594) = 64.60, p < .0001$; $\chi^2/df = 2.15$; $GFI = .98$; $AGFI = .96$; $CFI = .98$; $RMSEA = .044$; $SRMR = .030$], and parameter estimates of the model are presented in Table 4. As previously hypothesized, family functioning negatively predicted suicidal tendency ($\beta = -.21, p < .01$). Additionally, family functioning positively predicted perceived social support ($\beta = .38, p < .01$), and negatively predicted antisocial behaviors ($\beta = -.32, p < .01$). Finally, standardized regression coefficient between the family functioning and suicidal tendency ($\beta = -.46, p < .01$) decreased to a lower value ($\beta = -.21, p < .01$) with the addition of perceived social support and antisocial behaviors to the structural equation model, and the bootstrap analysis indicated that the indirect effect of family functioning on suicidal tendency was statistically significant ($\beta = -.25, p < .01$). In other words, perceived social support and antisocial behaviors exhibited partial mediation in the relationship between family functioning and suicidal tendency.

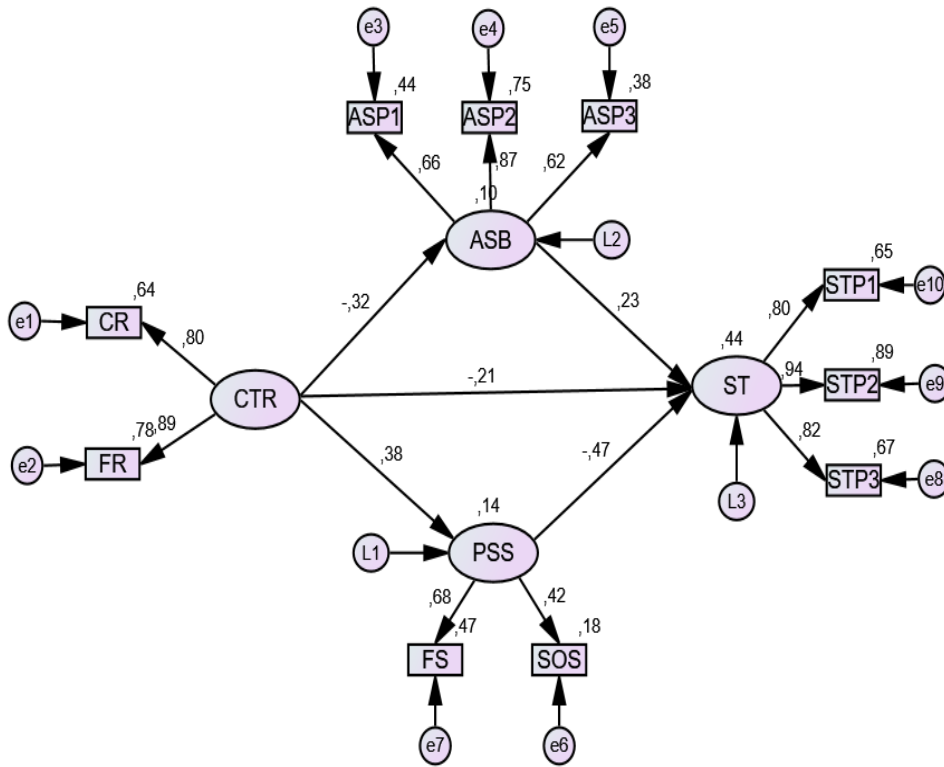


Figure 1. Results of structural equation analysis

CTR: Circumplex Total Ratio; CR: Cohesion Ratio; FR: Flexibility Ratio; PSS: Perceived Social Support; FS: Friend Support; SOS: Significant Other Support; ASB: Antisocial Behaviors; ASP1: Antisocial Parcel 1; ASP2: Antisocial Parcel 2; ASP3: Antisocial Parcel 3; ST: Suicidal Tendency; STP1: Suicidal Tendency Parcel 1; STP2: Suicidal Tendency Parcel 2; STP3: Suicidal Tendency Parcel 3.

$R^2 = .44$; $\chi^2 (N = 594) = 64.60$, $p < .0001$; $\chi^2/df = 2.15$; $GFI = .98$, $AGFI = .96$, $CFI = .98$, $RMSEA = .044$, $SRMR = .030$

Table 4. Parameter Estimates of Structural Equation Model (N = 594)

	Direct effect	Indirect effect (95% CI)	Total effect
CTR→ST	-.21**	-.25(-.35, .17)**	-.46**
CTR→PSS	.38**		.38**
CTR→ASB	-.32**		-.32**
PSS→ST	-.47**		-.47**
ASB→ST	.23**		.23**

** $p < .01$

Note: CTR: Circumplex Total Ratio; ST: Suicidal Tendency; PSS: Perceived Social Support; ASB: Antisocial Behaviors.

Bootstrap sample size = 10,000

DISCUSSION

Suicide is one of the most prominent cause of death among young adults around the world, and suicidal tendency is an important problem that can be commonly observed in normative community samples (Orbach, 1991). Also, the quality of interpersonal relationships within the socialization process is deemed as a robust predictor of suicidal tendency, and the prevention of suicide essentially refers to enhancing the quality of relations with significant people in life (Joiner, 2005; Van Orden et al., 2010; You et al., 2011). In view of that, the aim of the current study was to investigate the role of socialization process, which begins in family context and extends to interpersonal relations in life, in terms of suicidal tendency.

Preliminary assumptions were checked, the construct validity of the measurement tools were confirmed, and the measurement model produced good fit indices before performing the structural equation analysis. Finally, the mediation model was tested and the results also produced good fit indices for the structural equation analysis. Accordingly, both direct and indirect effects of the family functioning significantly predicted suicidal tendency, and the magnitude of the relationship between family functioning and suicidal tendency significantly decreased to a lower level within the partial mediation of the perceived social support and antisocial behaviors.

At the outset, family functioning negatively predicted suicidal tendency, and it is possible to find consistent research results showing the robust role of family functioning in predicting suicidal tendency (Evans et al., 2004; Frey et al., 2016; Van Orden et al., 2010). Specifically, it is also possible to find consistent results showing the significant role of family cohesion in predicting suicidal tendency (Compton et al., 2005; Eshun, 2003; Gau et al, 2008; Gencoz & Or, 2006; Harris & Molock, 2000; Lucey & Lam, 2012; Pena et al., 2011; Rapp et al., 2017; Sheftall et al., 2013; Summerville et al., 1994). After controlling the strong associates of suicidal tendency (e.g., academic achievement, positive and negative affect, depression and anxiety), Gencoz and Or (2006) reported the robust role of family cohesion in predicting suicidal tendency as compared to organization control of family including family rules and rigidity of family orders among Turkish youngsters. However, family flexibility emerged as a significant predictor at least as important as family cohesion within the scope of the current study. Similarly, it is possible to find supportive research findings showing the significant role of family flexibility in predicting suicidal tendency (Compton et al., 2005; Gau et al, 2008; Harris & Molock, 2000; Lucey & Lam, 2012; Sheftall et al., 2013; Summerville et al., 1994). Correspondingly, balanced forms of cohesion including supportive emotional bonds, caring and intimacy between family members, also balanced forms of flexibility including well-organized roles, suitable rules and reasonable disciplinary practices in the family system can be deemed as protective factors in predicting suicidal tendency.

Although the process of socialization originally begins in the family context, the findings supported the prediction that this process cannot be limited to the quality of relations with family members alone (Bowlby, 1988; Rohner et al., 2008; Weissman et al., 2000). In other words, family functionality emerged as an important context in the development of the attitudes towards people in the socialization process. Social support was conceptualized as a subjective perception including an internal tendency to perceive other people in social life as supportive or negatory (Brewin, 1995; Rohner et al., 2008; Sarason et al., 1991), and the findings supported the prediction that emphasizes the role of supportive emotional bonds and well-organized roles between family members in predicting the perception of social support. Moreover, perceived social support emerged as another robust predictor of suicidal tendency in accordance with the literature (Joiner, 2005; Van Orden et al., 2010; You et al., 2011), and perceived social

support demonstrated a partial mediation in the relationship between family functioning and suicidal tendency within the scope of structural equation model. Similarly, antisocial behavior was conceptualized as a poor and dysfunctional mechanism to cope with anxiety among persons without skills to solve problems properly in terms of social adaptation (Goodwin & Hamilton, 2003; Hopwood et al., 2009; Martens, 2001), and the findings supported the prediction that emphasizes the role of family functioning in predicting antisocial behaviors (Lecomte & Fornes, 1998; Marttunen et al., 1994; Martens, 2001). Subsequently, the balanced levels of cohesion including caring and intimacy between family members, and the balanced levels of flexibility including clear rules and reasonable disciplinary practices within the family system emerged as significant context in predicting antisocial behaviors. Moreover, antisocial behaviors emerged as significant predictor of suicidal tendency in accordance with the literature (Lecomte & Fornes, 1998; Marttunen et al., 1994; Martens, 2001), and antisocial behaviors also demonstrated partial mediation in the relationship between family functioning and suicidal tendency within the scope of the structural equation model.

Although it is not directly the subject matter of the current study, no statistical relationship was found between perceived social support and antisocial behaviors, and two variables demonstrated independent pathways within the scope of the mediation model. Actually, the nature of the relationship between perceived social support and antisocial behaviors refers to a relatively controversial issue (Bender & Lösel, 1997; Patterson, Kupersmidt, & Griesler, 1990), and an important reason why the relationship has a complex pattern is that individuals who exhibit antisocial behaviors can approach different subgroups that reinforce their disruptive behaviors despite their rejection from their initial social environment (Bender & Lösel, 1997; Olweus, 1993; Patterson, Reid, & Dishion, 1992). Thereby, it is possible for individuals to establish an environment in which they can perceive social support despite their disruptive and irresponsible behaviors, and the support function of such relations emerges as an important context, especially for milder forms of antisocial behaviors (Bender & Lösel, 1997). However, as current findings show, the possibility of getting social resources in their subgroups does not seem sufficient to eliminate the risk of suicidal tendency even for individuals with mild antisocial behaviors.

CONCLUSION & RECOMMENDATIONS

Suicidal tendency refers to a wide range of negative attitudes towards life, which are not directly involve the intention of death, and it was influentially emphasized that suicidal tendency can be commonly observed in nonclinical samples (Joiner, 2005; Orbach et al., 1991; Van Orden et al., 2010; You et al., 2011). Also, suicidal tendency is not included in proposed diagnostic criteria for Suicidal Behavior Disorder in DSM V (American Psychiatric Association, 2013), and preventive interventions of suicide predominantly refer to enhancing the quality of interpersonal relationships in the process of human socialization (Joiner, 2005; Van Orden et al., 2010; You et al., 2011). This perspective necessitates preventive interventions to enhance the quality of interpersonal relationships for mental health professionals working with normative samples. In line with this perspective, the role of the socialization process, which begins in family context and extends to friends and other important people in life, was examined with a structural equation model within the scope of the current study. Current findings theoretically suggest that preventive interventions of suicidal tendency in normative samples should aim to improve family functioning and social support perception, and also to reduce antisocial behaviors. Thus, strengthening emotional bonds, intimacy and loyalty between family members, reorganizing the roles, rules, and the disciplinary practices within the family system in a more reasonable manner, establishing more supportive relationships with other social resources, also avoiding antisocial behavior that is considered as a dysfunctional mechanism to solve problems properly may provide positive contributions to the preventive interventions in normative samples. Consequently, current findings of the study suggest that preventive studies on suicidal tendency should also include family-based, systemic interventions as well as individual interventions. Accordingly, systemic interventions that emphasize the role of family functioning on socialization process and individuals' mental health can be realized with the involvement of family members in future studies. Additionally, intervention studies aimed to enhance social skills, problem solving skills and coping skills with social anxiety, may provide positive contributions to establishing more supportive interpersonal relationships with other social resources and avoiding antisocial behaviors in normative samples.

On the other hand, the current study has several limitations. Firstly, although the term suicide refers to a complex and multifactorial pattern, the current study examined a relatively limited model that basically includes interpersonal relations outside of the biological, genetic or socio-cultural variables. Secondly, since the current study aimed to examine protective variables on normative samples, the data were collected through self-report measures that may include the effects of social desirability. Thirdly, the cross-sectional design of the study limits the examination of the causal inferences between the research variables. Lastly, the representation of the normative sample through highly educated and urban young adults can be considered as a limitation for generalizability of the current findings to expanded community samples. Additionally, the main purpose of this study was to reach a normative sample, and the number of participants in the sub-groups was not appropriate for comparative analysis. Thereby, it will be an important purpose to reach appropriate samples to examine the moderator effects of demographic variables such as gender, family type or level of income for future studies. Also, future studies based on experimental design using longitudinal measurements, in which the diversity of the participants is increased and the variables are more strictly controlled, may offer significant contributions to the literature.

Yazar Hakkında / About Author

Turgut TÜRKDOĞAN. Pamukkale Üniversitesi Psikolojik Danışmanlık ve Rehberlik Anabilim Dalı'nda öğretim üyesi olarak görev yapmaktadır. Lisans ve yüksek lisans eğitimini Pamukkale Üniversitesi'nde, doktora eğitimini Ege Üniversitesi'nde tamamlamıştır. Çalışma alanı, kişilerarası ilişkilerde algılanan kabul-reddin bireylerin psikolojik iyi oluşları üzerindeki etkisine ve özellikle ebeveyn kabul-reddinin etkileriyle başa çıkmaya odaklanmaktadır.

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Yazar Katkıları / Author Contributions

TT: Araştırma konusunun ve araştırma amacının belirlenmesi, araştırma örnekleminin seçimi, veri toplama süreci, verilerin analizi, bulguların yorumlanması ve raporlaştırılması yazar tarafından gerçekleştirilmiştir.

TT: Specification of the research subject and research aim, selection of the research sample, data collection process, data analysis, interpretation and reporting of the findings were carried out by the author.

Çıkar Çatışması / Conflict of Interest

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Genişletilmiş Özet

Giriş: Önemli bir ruh sağlığı problemi olan intihar, dünyada 15-29 yaşları arasındaki genç insanların ikinci ölüm nedenidir (World Health Organization, 2014). İntihar araştırmaları ağırlıklı olarak ciddi ruh sağlığı problemlerini içeren klinik örneklemeler üzerinde yürütülmekteyse de (Brown, Beck, Steer ve Grisham, 2000; Hawton ve van Heeringen, 2009), esasen *intihar eğilimi* yaşama ilişkin geniş çeşitlilikteki olumsuz tutumlara atıfta bulunmakta ve doğrudan ölüm niyetini içermeyen bu eğilim klinik olmayan örneklemelerde de yaygın olarak gözlemlenebilmektedir (Joiner, 2005; Orbach vd., 1991; Van Orden vd., 2010; You vd., 2011).

İntihar eğilimi üzerine yürütülen araştırmaların odaklandığı önemli bir yaklaşıma göre çatışmayı, reddedilmeyi, yalnızlığı ve engellenmiş aidiyeti içeren zayıf nitelikteki kişilerarası ilişkiler, intihar eğiliminin başlıca yordayıcısı olarak kabul edilmektedir (Joiner, 2005; Van Orden vd., 2010; You vd., 2011). Bu kapsamda, intihara yönelik önleyici müdahaleler, esas olarak aile üyeleri, arkadaşlar ve yaşamdaki diğer önemli insanlarla kurulan ilişkilerin kalitesini arttırmayı amaçlamalıdır (Compton, Thompson ve Kaslow, 2005; Rajalin, Hirvikoski, Renberg, Asberg ve Jokinen, 2017; Rapp, Lau ve Chavira, 2017; Van Orden vd., 2010; You vd., 2011).

Alan yazınındaki araştırmalar aile sisteminde başlayıp yaşamdaki kişilerarası ilişkilere uzanan sosyalizasyon sürecinin intihar eğiliminin anlamlı bir yordayıcısı olduğunu göstermektedir (Joiner, 2005; Van Orden vd., 2010; You vd., 2011). *Sosyalizasyon* kavramı, diğer insanlarla yakın ilişkiler kurabilmek ve ayrıca toplumdaki diğer insanlara yönelik yıkıcı ve sorumsuz davranışlardan kaçınmak için gereken becerileri ve değerleri edinme süreci olarak tanımlanmaktadır (Maccoby, 1992). Buna göre, sosyalizasyon tanımının başkalarıyla yakın ilişkiler kurmayı içeren ilk bölümü, diğer insanları yakın, destekleyici ya da olumsuz algılama eğilimini tanımlayan *sosyal destek* kavramı ile birlikte değerlendirilebilir (Brewin, 1995; Sarason vd., 1991). Tanımın toplumdaki diğer insanlara yönelik yıkıcı ve sorumsuz davranışlardan kaçınmayı içeren ikinci bölümü ise sosyal normları ihlal eden ve başkalarının haklarına saygısızlık ile karakterize edilen uygunsuz davranışları tanımlayan *antisosyal davranışlar* kavramı ile birlikte değerlendirilebilir (Hopwood vd., 2009).

Evlilik ve Aile Sistemleri Dairesel Modeli çerçevesinde aile üyeleri arasındaki yakın duygusal birlikteliği ve aile sistemi içindeki iyi organize edilmiş rolleri ve kuralları tanımlayan *aile işlevselliği*, sosyalizasyon süreci açısından önemli bir bağlam olarak kabul edilebilir (Bugental, 2000; Grusec ve Davidov, 2010; Maccoby, 1992). Bununla birlikte,

alan yazınında aile işlevselliği ile intihar eğilimi arasındaki ilişkide algılanan sosyal destek ve antisosyal davranışların aracılık rolünü inceleyen herhangi bir araştırmaya rastlanmamıştır. Oysa intihar eğiliminin olası yordayıcılarının kişilerarası ilişkiler yaklaşımıyla tutarlı bir kavramsal çerçeve içinde araştırılmasının, klinik olmayan örneklemdeki önleyici müdahaleler için alan yazınına kuramsal katkılar sunması beklenmektedir.

Yöntem:

Araştırma kapsamındaki veriler Pamukkale Üniversitesi merkez kampüsünde bulunan Eğitim Fakültesi ve Fen-Edebiyat Fakültesi'ndeki öğrenciler arasından uygun örnekleme yöntemiyle seçilen 594 (% 60,4 kadın,% 39,6 erkek) gönüllü katılımcıdan oluşmaktadır. Buna göre, Pamukkale Üniversitesi'nde öğrenim gören yaklaşık 55,000 öğrencinin oluşturduğu araştırma evreni için güven aralığı % 95 ve hata payı % 4 olarak hesaplanmıştır (Krejcie ve Morgan, 1970). Katılımcıların yaş ortalaması 20.31'dir (Ss = 1.93). Araştırma örnekleminde yer alan katılımcılar *Aile Uyum Yeteneğini ve Birliğini Değerlendirme Ölçeği IV*, *Riskli Davranışlar Ölçeği* ve *Çok Boyutlu Algılanan Sosyal Destek Ölçeği*'ni tamamlamışlardır.

Aile Uyum Yeteneğini ve Birliğini Değerlendirme Ölçeği IV. Ölçek, algılanan aile işlevselliğini aile birliği ve aile esnekliği boyutlarında değerlendirmeyi amaçlamaktadır (Olson, 2011; Olson, Gorall ve Tiesel, 2007). Ölçeğin Türkçe uyarlaması Türkdoğan, Duru ve Balkıs (2018) tarafından gerçekleştirilmiştir. Aile birliği [$\chi^2 (N = 594) = 377.34, p < .0001; \chi^2/df = 2.57; GFI = .94; AGFI = .92; CFI = .94; RMSEA = .051; SRMR = .062$] ve aile esnekliği [$\chi^2 (N = 594) = 281.90, p < .0001; \chi^2/df = 3.32; GFI = .94; AGFI = .92; CFI = .93; RMSEA = .063; SRMR = .061$] ölçekleri için yapı geçerliği, mevcut çalışma kapsamında başarıyla doğrulanmıştır.

Çok Boyutlu Algılanan Sosyal Destek Ölçeği. Ölçek, bireylerin sosyal kaynaklardan algıladıkları destek düzeyini değerlendirmeyi amaçlamaktadır (Zimet, Dahlem, Zimet ve Farley, 1988). Arkadaş desteğini ve özel insan desteğini içeren iki-faktörlü yapı, mevcut çalışma kapsamında başarıyla doğrulanmıştır [$\chi^2 (N = 594) = 23.27, p < .0001; \chi^2/df = 1.37; GFI = .99; AGFI = .98; CFI = .99; RMSEA = .025; SRMR = .011$].

Riskli Davranışlar Ölçeği. Ölçek, *Problem Davranış Kuramı* (Jessor ve Jessor, 1977) temelinde üniversite öğrencilerinin hayatlarını tehlikeye atan riskli davranışların düzeyini değerlendirmek için Gençtanırım (2014) tarafından geliştirilmiştir. Antisosyal davranışlar [$\chi^2 (N = 594) = 97.55, p < .0001; \chi^2/df = 3.36; GFI = .97, AGFI = .94, CFI = .94, RMSEA = .063, SRMR = .043$] ve intihar eğilimi [$\chi^2 (N = 594) = 145.89, p$

< .0001; $\chi^2/df = 2.98$; $GFI = .96$, $AGFI = .93$, $CFI = .97$, $RMSEA = .058$, $SRMR = .031$] ölçekleri için yapı geçerliđi, mevcut alıřma kapsamında başarıyla dođrulanmıřtır.

Bulgular: Bulgular, ailenin iřleyiřini, algılanan sosyal desteđi ve antisosyal davranıřları ieren yapısal modelin, intihar eđilimini geniř bir etki byklđyle yordadıđını gstermiřtir [$R^2 = .44$; $\chi^2 (N = 594) = 64.60$, $p < .0001$; $\chi^2/df = 2.15$; $GFI = .98$, $AGFI = .96$, $CFI = .98$, $RMSEA = .044$, $SRMR = .030$]. Buna gre aile iřleyiři, intihar eđilimini ($\beta = -.21$, $p < .01$) ve antisosyal davranıřları ($\beta = -.32$, $p < .01$) negatif ynde, algılanan sosyal desteđi ($\beta = .38$, $p < .01$) ise olumlu ynde yordamıřtır. Aile iřlevselliđi ile intihar eđilimi arasındaki standardize regresyon katsayısı ($\beta = -.46$, $p < .01$), algılanan sosyal destek ve antisosyal davranıřlar deđiřkenlerinin yapısal eřitlik modeline dhil edilmesiyle birlikte daha dřk bir deđerle ortaya ıkmıř ($\beta = -.21$, $p < .01$) ve yrtlen bootstrap analizi aile iřlevselliđinin intihar eđilimi zerindeki dolaylı etkisinin anlamlı olduđunu gstermiřtir ($\beta = -.25$, $p < .01$). Bařka bir deyiřle, algılanan sosyal destek ve antisosyal davranıřlar, aile iřlevi ile intihar eđilimi arasındaki iliřkide kısmi aracılık rol sergilemiřtir.

Tartıřma ve Sonu: Sosyalizasyon sreci her ne kadar aile iliřkileri bađlamında bařlasa da, bulgular bu srecin yalnızca aile yeleriyle olan iliřkilerin kalitesiyle sınırlı kalamayacađını hipotezini desteklemiřtir (Bowlby, 1988; Rohner vd., 2008; Weissman vd., 2000). Aile iřlevselliđi, sosyalleřme srecindeki olumlu ya da olumsuz iliřkilerin anlamlı bir yordayıcısı olmuřtur (Bugental, 2000; Grusec ve Davidov, 2010; Maccoby, 1992). Mevcut bulgular; aile bireyleri arasındaki duygusal bađları ve yakınlıđı glendirmeyi; aile sistemi iindeki rolleri, kuralları ve disiplin uygulamalarını daha makul bir řekilde yeniden dzenlemeyi; yařamdaki sosyal kaynaklarla daha destekleyici iliřkiler kurmayı ve yařam iindeki problemleri uygun bir řekilde zmek iin iřlevsel olmayan bir mekanizma olarak kabul edilen antisosyal davranıřlardan kaınmayı amalayan alıřmaların, normatif rneklerde yrtlecek nleyici mdahalelere olumlu katkılar sađlayabileceđine iřaret etmektedir.