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Social Exclusion, Social Support and Psychological Wellbeing at School: A Study of Mediation and Moderation Effect

Gökmen Arslan[1]

Abstract Social exclusion experiences thwart fundamental human needs, and threaten youths' mental health and wellbeing. Given the literature supporting the protective effect of social support, the present study investigated whether social support mediated and moderated the relation between social exclusion and psychological wellbeing at school. Sample consisted of 407 adolescents (49.9% of female) with ranging in age between 11 and 18 years ($M = 13.94$, $SD = 1.64$). Findings of the structural equation modeling analyses indicated that social support sources–family, peer and school– had mediating effect on the relationship of social exclusion and youths' psychological wellbeing. Additionally, regression analyses showed that social support had also a moderator role on this association. However, the role of these resources (family, school and peer support) varied with regard to gender, and herein the effect of social support was greater in female students. Moreover, school support moderated the association of social exclusion and female students' psychological wellbeing, while peer support had a moderator role on this relation for male students. In sum, the study results support that youths who perceive themselves as being socially excluded at school have lower social support and psychological wellbeing, and the importance of social support resources on youths' psychological wellbeing in adolescents. Implications for future research and practice are discussed, and several suggestions are presented.

Keywords Social exclusion · Social support · Psychological wellbeing · Belonging · Adolescence

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Human beings are essentially both social and cultural creatures, and rely on group life for their development and wellbeing (Baumeister et al. 2005; Baumeister et al. 2007). The desire to build and maintain positive relationships is considered as one of the most basic and universal needs of humans (Baumeister and Leary 1995). Therefore, failure to satisfy this need can lead to many undesirable outcomes for individuals' mental health and wellbeing (Maner et al. 2007). Conceptualized as being excluded by individuals or social groups (Williams 2007), social exclusion thwarts this fundamental need and threatens individual positive development (e. g. Baumeister and Leary 1995; Diarof 2010; Duru and Arslan 2014; Osterman 2000; Williams and Nida 2011). Individuals socially excluded do not perceive themselves as a part of a social group, and cannot feel themselves as valuable (Duru and Arslan 2014). According to Williams's (2009) conceptualization, social exclusion threatens fundamental needs that are sense of belonging, self-esteem, control, and meaningful existence as well as reducing the positive effects and increasing the negative effects. Previous studies showed that social exclusion is associated with a variety of social, emotional and behavioral outcomes, including violence, loneliness, anxiety, depression, low self-esteem and risk behaviors (Baumeister and Tice 1990; Duru et al. 2016; Duru and Arslan 2014; Gilman et al. 2013; Leary 1990; Twenge et al. 2001). Many studies also documented that socially excluded students have various difficulties in school settings, such as low academic achievement, school absenteeism, low academic efficacy, and school dropout (e.g. Arslan 2016a; Sarı 2013; Goodenow and ve Grady 1993). School provides not only a venue for academic development, but also is a setting that children can develop their social skills and interact with others (Leja and Wesselmann 2013). Many children have good relationships with others, particularly teachers and peers; unfortunately, many others negatively interact with them, perceiving themselves as being excluded in their school (Arslan 2016b). In this regard, social exclusion at school is related to various educational, cognitive, emotional and behavioral outcomes, including academic achievement, academic efficacy, educational goals, emotional problems, school violence, and wellbeing (e.g. Arslan 2016a; Leary et al. 2003; Shochet et al. 2011; Sarı 2013; Osterman 2000). For example, Arslan (2016a) reported the predictor effect of social exclusion on students' academic achievement, academic efficacy, and educational purpose. In a meta-analytic study, Blackhart et al. (2009) explored the effects of social exclusion on various outcomes, such as self–esteem, affective wellbeing, and emotional problems in adolescents. In conclusion, the evidences suggest the effects of social exclusion on various outcomes at school, and socially excluded adolescents may have low level of psychological wellbeing.

Psychological wellbeing refers to youth's affective and adaptive wellbeing (Renshaw and Bolognino 2016), and includes the hedonic and eudaimonic dimensions of wellbeing (Deci and Ryan 2008). Many studies highlighted the importance of social relationships for people's mental health and wellbeing (Cohen and Wills 1985; Diener and McGavran 2008; House et al. 1988a, b; Erdem and Kabasakal 2015), that is to say, positive relationships with others is described as a dimension of positive psychological functioning of an individual (Ryff 1989). According to Huppert (2008), psychological wellbeing means that an individual's life is going well, and social environment influences this. Thus, social relationships are one of the fundamental components of psychological wellbeing (Ryff 1995). If so, the quality of the relationships with others

influences youth's wellbeing, and, individuals who are socially excluded may have low level of psychological wellbeing compared to those who are non-excluded. Moreover, considering the role of group life and positive relationships for youths' mental health and development (Baumeister et al. 2005), failure to satisfy this need can have a variety of undesirable outcomes (Maner et al. 2007), thereby excluded, rejected, or ignored individuals show more negative experiences, such as anxiety, depression, jealousy, and loneliness (Baumeister and Leary 1995; Osterman 2000). In a related study, Gilman et al. (2013) investigated the predictor effect of social exclusion on wellbeing and psychological distress in high school students, and they reported that social exclusion experiences were significant predictor of depression and global life satisfaction. Oktan (2012) demonstrated the predictor effect of exclusion sensitivity on adolescents' subjective wellbeing, and; moreover, social exclusion was found as a significant predictor of affective wellbeing in adolescents (Arslan 2016b). In addition to the cross–sectional studies investigating the association between social exclusion and various outcomes, Shochet et al. (2011) found the longitudinal effect of social exclusion on emotional problems, suggesting that exclusion is a risk factor for future negative emotional outcomes, controlling for prior emotional experiences. Taken all together, the literature suggests that youths who perceive themselves as socially excluded may have low level of psychological wellbeing. Therefore, there is an important need to examine and understand the protective variables for the effects of social exclusion on the psychological wellbeing from childhood to adulthood. To this end, the purpose of present study is to investigate the protective–mediating and moderating– role of social support on the effect of social exclusion on psychological wellbeing in adolescents.

1 Social Exclusion, Social Support, and Psychological Wellbeing

Social support is defined as an individual's network of psychological and material assets intended to enhance her/his ability to cope with adversity (Cohen 2004). Therefore, it is related to the function and quality of social relationships (e.g. *perceived availability of help, and support actually received*; Schwarzer and Knoll 2007). Social support is generally categorized as emotional (*includes the expression of empathy, reassurance, caring, and trust*), informational (*the provision of relevant information intended to help the individual cope with stress*), and instrumental support (e.g. *financial assistance or help with daily tasks*; Cohen 2004). In particular, social support is stated to be closely associated with the positive development and wellbeing of a person childhood to adulthood (e.g. Cohen 2004; Duru and Balkis 2007; Tian 2014). Unlike the effects of social exclusion on the fundamental needs the individuals (Williams 2009), social support contributes to an individual's development with the experiences of being cared and loved, esteemed and valued, and belonging to a social network communication and mutual obligation (Cobb 1976). Many studies stated that socially excluded individuals have low level social support compared to those who were non-excluded (Teng and Chen 2012; Bostan and Duru 2016; Jasinskaja-Lahti et al. 2006). For example, in a qualitative study, Duru and Arslan (2014), reported that girl adolescents, who run away from home to get married, have low level or lack of social support, as well as high level of exclusion in their family context. Furthermore, considering the potential effects of social exclusion on individual's emotional,

cognitive and mental health (see Baumeister and Leary 1995; Williams 2009), it is reasonable to expect that youths who are socially excluded have lack or low level of social support than those who are not-excluded (Duru and Arslan 2014). In sum, outcomes suggest that youths who perceive themselves as being excluded at school may have less social support resources than the non-excluded.

What is more, previous studies indicated that individuals with high level of social support have higher level of wellbeing (e.g. Daniels and Guppy 1994; Kong and You 2013; Malkoç and Yalçın 2015; Tian et al. 2013; Winefield et al. 1992; Zhao et al. 2014), and less emotional and behavioral difficulties (e.g. Doğan 2008; Duru 2008a; Stevens et al. 2013; Sperry and Widom 2013). For example, Yalçın (2015) documented that there is a positive association between social support and wellbeing indicators, and especially family support has a stronger effect size than the other support resources on wellbeing. In a longitudinal study, Demaray et al. (2005), pointed out the effects of social support resources on the adjustment behaviors in adolescents. Many studies also reported the significant relationship between social support and psychological wellbeing (Gençöz et al. 2004; Glozah 2013; Lavasani et al. 2011; Özden 2014). A positive relationship with others is a fundamental dimension of psychological wellbeing (Ryff 1995). Therefore, having a social support positively contributes to youths' psychological wellbeing, and protects individuals' mental health and wellbeing against stressors. Stress–buffer model (Cohen and McKay 1984; Cohen and Wills 1985) has also suggested that social support is closely associated with individuals' mental health and development, and protects their wellbeing against stressful life events. It is considered as a stress buffer (Cohen and Wills 1985), and a coping resource (Thoits 1995). Moreover, given the resource-oriented approach (Hobfoll 2001) social support is a valuable resource that is closely associated with resiliency (Zaumseil and Schwarz 2014), and it is a coping assistance (Schwarzer et al. 2004). Hence, researchers underline that there is a need to understand and investigate the relations between the stressor types and social support (Cohen and Wills 1985). Numerous studies support the protective role (moderating and mediating) of social support on individuals' mental health and wellbeing in the context of life change stresses (e.g. Cicognani 2011; Duru 2008b; Murray et al. 2013; Sperry and Widom 2013; Zhou et al. 2013). Individuals need resources provided by others when faced with stressors. These resources help them to cope with these experiences, and positively contribute to their wellbeing. In addition, researchers also need to investigate the possible role of social support in coping with the negative outcomes of social exclusion, which is a significant stressor, as well (Nezlek et al. 2012). Briefly, the literature and theoretical framework suggest that social support may reduce the negative effect of social exclusion on youths' psychological wellbeing, and serve as a buffer or protective factor in the context of this painful event in school.

2 Current Study

The literature sketched above encouraging that social exclusion is related to low level of social support and psychological wellbeing (Gilman et al. 2013; Bostan and Duru 2016; Duru and Arslan 2014; Oktan 2012; Teng and Chen 2012), and the protective

effect of social support on mental health and wellbeing (Cicognani 2011; Duru 2008b; Murray et al. 2013; Sperry and Widom 2013; Zaumseil and Schwarz 2014), the purpose of present study is to investigate the protective–mediating and moderating– effect of social support on youths' psychological wellbeing in the face of social exclusion. Considering the critical role of social relationships in youths' development and wellbeing (Diener and McGavran 2008; Ryff 1995) and theoretical frameworks within the context mentioned above (Cohen and McKay 1984; Cohen and Wills 1985; Baumeister and Leary 1995; Williams 2009), having a social support may positively contribute to youths' psychological wellbeing, and protect individuals' wellbeing against social exclusion experiences. What is more, although cross-sectional research indicating associations between adolescents' social support and desirable or undesirable outcomes, the protective role of social support at school have largely remained unexplored. On the other hand, studies have generally focused on the role of social support in adulthood, yet few has taken into account the social support as a coping resource in adolescence. In addition, given the negative outcomes of social exclusion for individuals' mental health and wellbeing (see Baumeister and Leary 1995; Williams 2009), this study is important in regard to increase the understanding of the protective mechanisms for the effects of social exclusion on an individual's psychological wellbeing at school. Due to these multiple negative effects, students who are socially excluded may need some services in the process of coping with this negative experience. Therefore, results from this study might have significant implications for school counselors and other professionals in the context of mental health services at schools. To this end, following research questions were addressed: (H_1) it was hypothesized that social support variables (family, friend, and school support) would be mediators in the relationship between social exclusion and youths' psychological wellbeing, and (H_2) it was hypothesized that these variables would also be the moderators on the relationship of social exclusion and youths' psychological wellbeing. In view of these hypotheses, the purpose of the present study is to examine the protective role of social support on the relationship of social exclusion and psychological wellbeing in adolescents.

3 Method

3.1 Participants

The sample consisted of 407 adolescents (49.9% of female) enrolled in Grades 6–12 in a public secondary and high school located in a small urban city in Turkey. All students were invited to participate in the study during their lunch break, and approximately 65% of them responded this invitation. Then, a paper-pencil survey including data collection instruments and questions about demographic variables was distributed to the students who were volunteer to participate in the study. Students' age ranged between 11 and 18 years ($M = 13.941$, $SD = 1.643$). All adolescents had same ethnic backgrounds, however, the socioeconomic statues (SES) of them varied as follows: Low SES = 17.6%, Medium SES = 48.7%, Upper SES = 33.7%. All participants fulfilled the survey approximately in 35 min.

3.2 Measures

Social Exclusion. Social Exclusion Scale (SES), a subscale of School Belongingness Scale (SBS; Arslan and Duru 2016), was used to measure social exclusion perceptions of students at school. The SBS was developed to measure sense of belonging at school based the need-to-belong theory (Baumeister and Leary 1995), and is a 10-item self-report instrument (e.g. "*I can really be myself in this school*", "*I feel like I am not accepted as I am in this school*", "*I think that I am not involved in most of the activities at school*") developed to measure school belonging level of students at school, scored on a 4-point Likert-type scale (from *1 = almost never* to *4 = almost always*). Research indicated that the scale had a good data-model fit statistics, and an adequate internal consistency coefficient (α), ranging from .83 to .86 (Arslan 2016a; b). After reversing the social exclusion items, total scores indicate the level of school belonging of a student. The internal consistency coefficient (α) of social exclusion scale with the present sample has an adequate level ($\alpha > .70$, see Table 1).

Social Support. Social support was measured using Social and Emotional Health Survey (SEHS; You et al. 2014), which is a 36 item self-report rating instrument developed to measure youths' social and emotional competencies based on *covitality* model (Furlong et al. 2014). The SEHS is comprised of 12 subscales (three items for each subscale) that refer to four latent traits: *belief-in-self* (self-awareness, self-efficacy, and persistence), *belief-in-others* (peer support, school support, and family support), *emotional competence* (behavioral self-control, emotional regulation, and empathy), and *engaged living* (zest, gratitude, and optimism). Previous studies indicated that the SEHS and latent domains provided a sound latent structure (e.g. Lee et al. 2016; Telef and Furlong 2016; You et al. 2015). Research also showed that the SEHS and its domains have an adequate data-model fit and internal consistent coefficient with Turkish sample, ranging from .76 to 89 (Telef and Furlong 2016). The *belief-in-others* domain was used to assess adolescents' social support in the present study. The scale consists of 9 items scored using a 4-point Likert type from (1) *not at all true of me* to (4) *very much true of me* (e.g. "*My family members really help and support one another*",

Table 1 Descriptivce statistics and bivariate correlations results

Variables	1.	2.	3.	4.	5.
1. Social exclusion	1	−.214[**]	−.344[**]	−.206[**]	−.257[**]
2. Family support	−.214[**]	1	.438[**]	.354[**]	.399[**]
3. Peer support	−.344[**]	.438[**]	1	.351[**]	.459[**]
4. School support	−.206[**]	.354[**]	.351[**]	1	.425[**]
5. Psychological well-being	−.257[**]	.399[**]	.459[**]	.425[**]	1
Mean	7.390	10.439	10.290	9.141	18.563
SD	2.684	2.091	2.247	2.594	4.876
Kurtosis	2.622	.947	.678	−.737	−.579
Skewness	1.507	−1.321	−1.242	−.561	−.517
α	.741	.812	.813	.823	.854

[**] $p < .001$, α = Cronbach"s Alpha scores of variables

"*At my school there is a teacher or some other adult who listens to me when I have something to say*", "*I have a friend my age who helps me when I'm having a hard time*"; You et al. 2014). The internal consistency coefficient of *belief-in-others* with the present sample is adequate ($\alpha > .80$; see Table 1).

Psychological wellbeing. Psychological Wellbeing and Distress Screener (Renshaw and Bolognino 2016) was developed to assess wellbeing and distress based on *bidimensional model of mental health*, which is 10-item self-report instrument including two sub-scales: *Psychological Wellbeing (PWS) and Psychological Distress Scale (PDS)*. The PWS was used to measure youths' affective and adaptive wellbeing, and consists of five items (e.g. "*Thinking about last week, have you got on well at school?*", "*Thinking about last week, have you felt fit and well?*") that is responded using 5-point scale, ranging between 1 (*never*) and 5 (*always*). Studies have revealed that the scale has a psychometrically sound latent structure, and an adequate internal consistency coefficient with American ($\alpha = .75–.77$; Renshaw and Bolognino 2016) and Turkish sample ($\alpha = .86–.87$; Arslan, G., & Renshaw, T. L. (2016). Psychometrics of the Turkish version of the Psychological Wellbeing and Distress Screener. Canadian Journal of School Psychology. Unpublished manuscript). Moreover, the internal consistency coefficient of the PWS with present sample was .85 (see Table 1).

3.3 Data Analyses

Several forms of analysis were conducted to investigate the moderating and mediating role of social support resources on the effect social exclusion on youths' psychological wellbeing. First of all, preliminary analyses were conducted to examine the observed variable characteristics, that is Pearson product-moment correlation analysis for the associations between latent variables and skewness and kurtosis scores for the normality assumptions (as recommended by Kline 2011). Secondly, the mediator role of variables (family, friend and school support) were examined using structural equational model with maximum likelihood estimation method. Before the testing structural models, to determine the association between latent variables, measurement model was tested. Multi-group analysis was conducted to examine the mediation effect of social support resources with regard to gender. Findings from measurement model and structural models were evaluated using common data–model fit statistics as follows: comparative fit index (CFI), Tucker Lewis index (TLI), the root mean square error of approximation (RMSEA [90% confidence interval]). The CFI and TLI values between .90 and .95 are considered as an adequate data–model fit, and the RMSEA (with 90% confidence interval) score between .05 and .08 are considered as an adequate data–model fit, while these score < .05 indicates a good data–model fit (Kline 2011). Finally, the hierarchical regression analysis was conducted to examine the moderating effect of social support resources on the relation between social exclusion and psychological wellbeing. The independence of errors and multicollinearity were assessed using the variance inflation factor (VIF) and tolerance values (Field 2009). Moreover, the effect size was interpreted using the R^2 and ΔR^2 as follows: .00–.009 = negligible, .01–.059 = small, .06–.139 = medium, .14+ = large. All data analyses were conducted using the SPSS and AMOS version 22.

4 Results

4.1 Preliminary Analyses

Findings showed that all variables were relatively normally distributed (skewness = |1.50| and kurtosis = |2.62|), and had an adequate the internal consistency coefficient with the present sample ($\alpha > .70$). Considering the bivariate correlation analysis, results indicated that social exclusion at school is negatively associated with each of the social support variables, while psychological wellbeing is positively correlated with each of them. The findings demonstrated a range of small-to-moderate correlations between the variables (r range = $-.206$ to .459). Observed variable characteristics and findings from correlation analysis are presented in Table 1.

4.2 Mediation Analyses

4.2.1 Testing the Measurement Model

Mediation analyses were conducted in two phases. In the first phase, measurement model was performed to examine the association between latent structures in the study; then the structural models were tested to analyze the role of the mediator variables (family, peer and school support) in the relation of social exclusion and psychological wellbeing. To determine the latent structure of social exclusion, social support constructs and psychological wellbeing, scale items were used. Findings of the measurement model, which was performed to investigate the association between latent variables of social exclusion, psychological wellbeing and mediator variables, provided a good data-model fit statistics ($\chi^2 = 274.142$, $df = 142$, $p < .001$, RMSEA = .048 [90% confidence interval for RMSEA: .039–.056], CFI = 96, and TLI = .95). Standardized regression estimates (β) of relation between latent structures ranged from $-.23$ to .55, and all estimates (β) were statistically significant. Following testing of the measurement model, proposed structural equation models were tested to analyze the role of the mediator variables.

4.2.2 Testing the Structural Model

Findings of the structural model, which was performed to examine the mediating role of family, peer and school support yielded an adequate data-model fit ($\chi^2 = 400.07$, $df = 145$, $p < .001$, RMSEA = .066 [90% confidence interval for RMSEA: .058–.074], CFI = 92, and TLI = .90). Furthermore, standardized regression estimates (β) showed that social exclusion significantly predicted the family support ($\beta = -.33$, $p < .001$), school support ($\beta = -.29$, $p < .001$), and peer support ($\beta = -.44$, $p < .001$), however it was a non-significant predictor of psychological wellbeing ($\beta = -.06$, $p = .34$ [*before adding the moderators* $\beta = -.31$]). Moreover, psychological wellbeing was significantly predicted by family support ($\beta = .22$, $p < .001$), school support ($\beta = .32$, $p < .001$), and peer support ($\beta = .31$, $p < .001$) in this association. Social exclusion accounted for 11% of the variance in family support, 19% of the variance in peer support, and 9% of the variance in school support. All variable together accounted for 35% of the variance in youths' psychological wellbeing. Taken together, findings from

the structural equational models indicated that social support resources fully mediated the relationship between social exclusion and youths' psychological wellbeing, see Fig. 1.

4.2.3 Gender and Social Support

In addition, multi-group analysis was conducted to examine whether the mediating effect of social support differ significantly between females and males. Overall model provided adequate data-model fit statistics ($\chi^2 = 581.622$, $df = 2290$, $p < .001$, RMSEA = .051 [90% confidence interval for RMSEA: .045–.057], and CFI = 91). Findings from the standardized estimates also showed that peer and school support fully mediated the association between the variables, nevertheless family support was a non-significant predictor of psychological wellbeing of male students. On the other hand, family, school and peer support fully mediated the relationship between social exclusion and psychological wellbeing of females (see Table 2). All variables together accounted for 40% of the variance in males' psychological wellbeing, while accounted for 50% of the variance in female group. Findings from the standardized regression estimates (β) are presented in Table 2.

4.3 Moderation Analyses

Moderation analyses, which were performed to examine the moderation effect of social support on psychological wellbeing, were conducted using hierarchical regression procedures (as recommended by Baron and Kenny 1986). In order to reduce the problems associated with multicollinearity among the variables in the regression
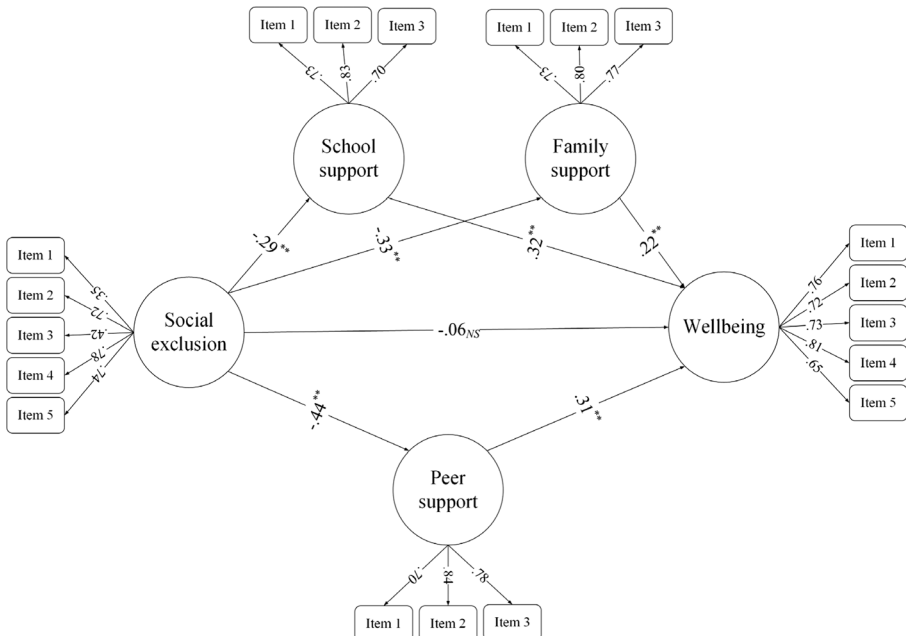

Fig. 1 Path coefficients of the proposed structural model. Note: $^{**}p < .001$, NS = non-significant

Table 2 Standardized regression coefficients for female and male students

Variables	Female β	Male β
Family, School and Peer support as mediators		
Social exclusion ---- > Family support	$-.353^{**}$	$-.294^{**}$
Social exclusion ---- > School support	$-.225^{**}$	$-.343^{**}$
Social exclusion ---- > Peer support	$-.458^{**}$	$-.413^{**}$
Social exclusion ---- > Psychological wellbeing	$-.048_{(NS)}$	$-.046_{(NS)}$
Family support ---- > Psychological wellbeing	$.383^{**}$	$.026_{(NS)}$
Peer support ---- > Psychological wellbeing	$.249^{**}$	$.424^{**}$
School support ---- > Psychological wellbeing	$.355^{**}$	$.310^{**}$

$^{*}p < .05,$ $^{**}p < .001,$ NS = non-significant

analysis (Frazier et al. 2004), predicator variables (social exclusion, family support, peer support, school support, and overall social support) were standardized. Then, several hierarchical regression analyses were conducted to investigate the moderation effect of social support structures (family, school, and peer) and overall social support on psychological wellbeing. At first step, the predictor variable (social exclusion) was entered into the regression equation. After that, moderator variables (family support, peer support, school support, and overall social support) were added separately. At the final step, the interaction of social exclusion × social support was entered in the model. The significant change in R square for interaction term indicates a significant moderator effect. In addition, like in the mediation analyses, the moderation effects of social support were performed with regard to gender.

Analyses revealed that psychological wellbeing was significantly predicted by social exclusion ($\beta = -.296, p < .001$), school support ($\beta = .377, p < .001$), and the interaction of social exclusion × school support ($\beta = -.102, p < .05$), and the change in R^2 of interaction effect was significant (R^2 change = .010, $p < .05$). Further, considering the gender, results showed that school support moderated the relationship of social exclusion and female students' psychological wellbeing with a significant R^2 change (β interaction = $-.137$, R^2 change = .019, $p < .05$). However, the change in R^2 of interaction effect was not significant for male students (β interaction = $-.033$, R^2 change = .001, $p > .05$). The moderator role of family support was also examined, and the results showed that social exclusion ($\beta = -.299, p < .001$), family support ($\beta = .333, p < .001$), and the interaction of social exclusion × family support ($\beta = -.134, p < .05$) significantly predicted youths' psychological wellbeing (R^2 change = .015, $p < .05$). The interaction effect for both genders was not significant (see Table 3). Lastly, findings from the moderation effect of peer support pointed out that psychological wellbeing was significantly predicted by social exclusion ($\beta = -.270, p < .001$), peer support ($\beta = .379, p < .001$), and the interaction of social exclusion × peer support ($\beta = -.129, p < .05$), and the change in R^2 of interaction effect was significant (R^2 change = .012, $p < .05$). Furthermore, peer support moderated the relationship between social exclusion and male students' psychological wellbeing with a significant R^2 change (β interaction = $-.198$, R^2 change = .030, $p < .05$). In conclusion, the results suggest that social support moderated the relationship of social exclusion and youths' psychological

Table 3 Summary of hierarchical regression analysis for variables predicting psychological wellbeing

Variables	Total sample					Female		Male	
	B	SE	β	R^2	ΔR^2	β	ΔR^2	β	ΔR^2
School support									
Social exclusion	−1.465	.246	−.296[**]	.283	.010	.397[**]	.019	−.164[*]	.001
School support	1.864	.244	.377[**]			.349[**]		.429[**]	
Interaction	−.462	.218	−.102[*]			−.137[*]		−.033[(NS)]	
Family support									
Social exclusion	−1.483	.262	−.299[**]	.239	.015	−.322[**]	.011	−.270[**]	.018
Family support	1.633	.269	.333[**]			.409[**]		.264[**]	
Interaction	−.591	.233	−.134[*]			−.112[(NS)]		−.150[(NS)]	
Peer support									
Social exclusion	−1.325	.272	−.270[**]	.260	.012	−.336[**]	.003	−.225[*]	.030
Peer support	1.851	.283	.379[**]			.297[**]		.469[**]	
Interaction	−.533	.228	−.129[*]			−.068[(NS)]		−.198[*]	
Overall social support									
Social exclusion	−.969	.263	−.198[**]	.341	.012	−.222[**]	.010	−.146[(NS)]	.010
Social support	2.410	.258	.495[**]			.531[**]		.501	
Interaction	−.517	.215	−.118[*]			−.107[(NS)]		−.113[(NS)]	

[**] $p < .001$, [*] $p < .05$, R^2 = R square, and ΔR^2 = R square change

wellbeing in school settings. Besides, school support moderated the association of social exclusion and female students' psychological wellbeing, while peer support had a moderator role on this association for male students. Findings of the moderation analyses are presented in Table 3 (also see Figs. 2, 3, 4 and 5).

5 Discussion

The purpose of the study was to investigate the mediating and moderating role of social support resources on the effect of social exclusion on psychological wellbeing in adolescents. That is, the particular interest of the present study was whether social support might serve as a factor reducing social exclusion's effects on youth's psychological wellbeing and serve as a buffer in this association. Findings from structural equation and regression analyses indicated that social support fully mediated the relationship between social exclusion and youths' psychological wellbeing (H_1), and had a moderating role on this association (H_2). However, the mediating and moderating role of the social support variables varied with regard to gender, and results of the mediation analyses showed the effect of social support was greater in female students in coping with social exclusion at school. Findings from the moderation analyses also showed that school support moderated the association of social exclusion and female students' psychological wellbeing, while peer support had a moderator role on this association for male students. Taken all together, findings suggest that social support
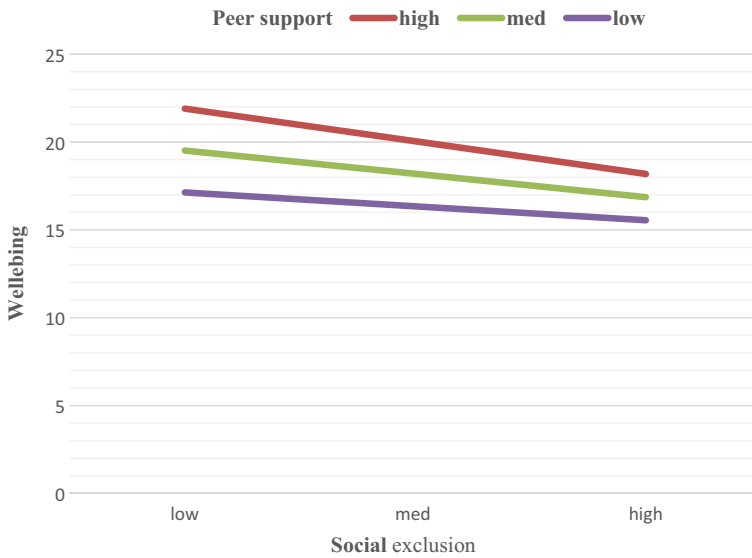
Fig. 2 Moderating effect of school support

serves as a reducing factor and has a buffer role in the relationship between social exclusion and psychological wellbeing in adolescents.

In addition to a body of literature supporting the relationship between social exclusion and social relationships difficulties (e.g., Ferris et al. 2008; Teng and Chen 2012; Duru and Arslan 2014; Jasinskaja-Lahti et al. 2006; Twenge et al. 2007), findings of the present study also make a significant contribution by signifying the social exclusion as a significant predictor of family, friend and school support in adolescents. Concerning the desire to form and maintain positive relationships is a fundamental of human need (Baumeister and Leary 1995), failure to satisfy this need can have many
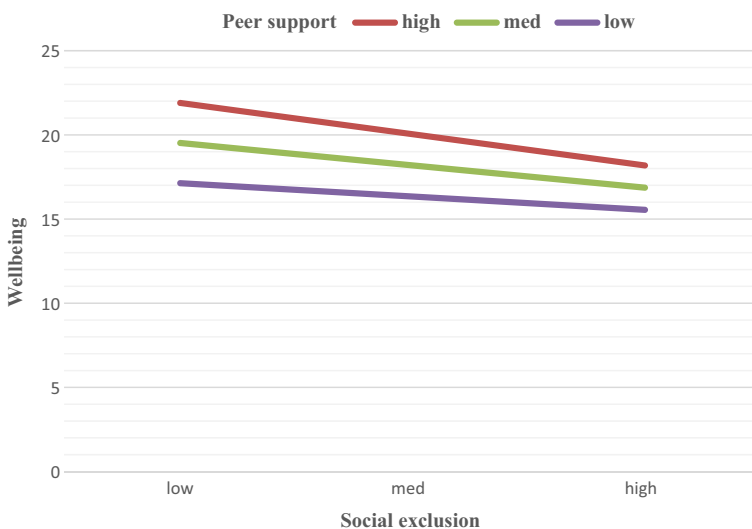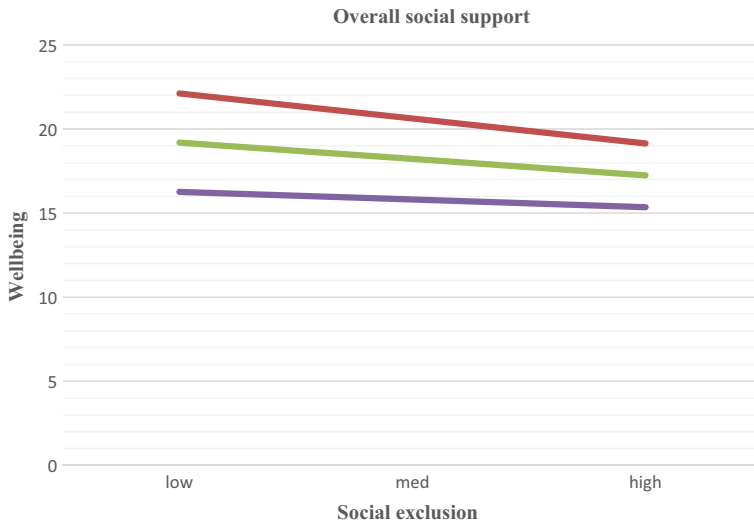

Fig. 3 Moderating effect of family support

Fig. 4 Moderating effect of peer support

undesirable outcomes for individuals' development and wellbeing (Maner et al. 2007). Social exclusion prevents this fundamental need (Baumeister and Leary 1995; Osterman 2000; Williams and Nida 2011), and threatens the individuals' need for sense of belonging, self-esteem, self-control, and a meaningful existence (Williams 2009). Moreover, social exclusion is strongly associated with a variety of emotional and behavioral difficulties (e.g. Arslan 2016a, b; Baumeister and Tice 1990; Duru et al. 2016; Duru and Arslan 2014; Gilman et al. 2013; Leary 1990; Twenge et al. 2001). Research also stated that social exclusion has a variety of effects on individual's social development (Baumeister and Leary 1995; Duru et al. 2016; Williams 2007), and socially excluded adolescents may be expected to have a lower level of social support
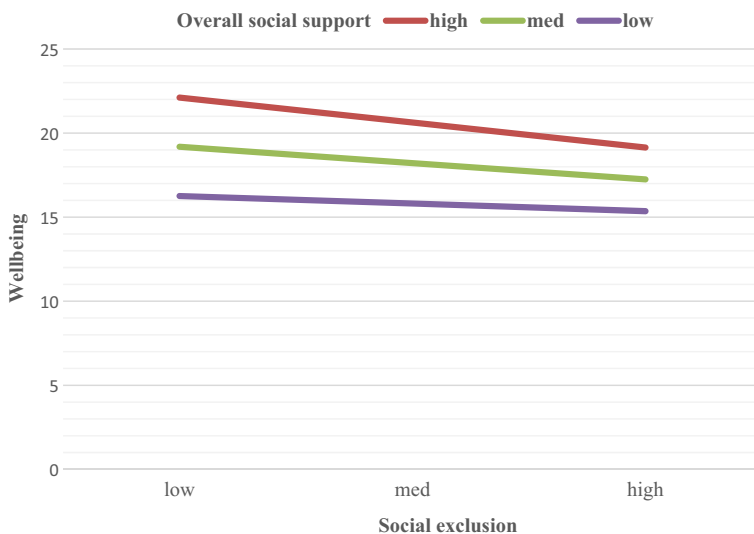

Fig. 5 Moderating effect of overall social support

compared to those who are non-excluded. For example, adolescents reporting higher level of social exclusion reported lower level of social support resources (Duru and Arslan 2014). Therefore, social exclusion is undoubtedly related to a lack of support or poor relations (Ferris et al. 2008). Duru, Arslan and Balkıs (unpublished manuscript) reported social exclusion is a significant predictor of social connectedness. In a study by Bostan and Duru (2016), socially excluded university students reported lower level of social support than those who were not excluded. Consequently, findings of the present study indicate that social exclusion is a significant predictor of family, friend and school support, which confirms that higher social exclusion related to lower level social support resources.

Consistent with the social support literature (Cohen 2004; Cohen and Wills 1985), findings also showed that social support variables (family, friend, and school support) fully mediated the association between social exclusion and youths' psychological wellbeing. That is to say, the possible negative effects of social exclusion on adolescent's psychological wellbeing reduce and remove as the social support is included in this relation. Therefore, social support eliminates the negative effects of social exclusion and serves as a protective factor on psychological wellbeing. Moreover, analyses revealed the moderating role of social support on this association, and suggested that it serves as a buffer against social exclusion. Considering the multiple effects of social exclusion on individual's mental health and wellbeing, these results confirm that social support reduce the negative effects of social exclusion, accordingly protects youth's psychological wellbeing, and serve as a buffer when individuals face with social exclusion experiences. Social support promotes person's ability to cope with adversity (Cohen 2004), and enhances resilience (Zaumseil and Schwarz 2014). When an individual face with negative experiences, s/he needs some resources provided by others to cope with these experiences, and these resources positively contribute to his/her wellbeing. Put differently, social support has a buffer effect (Cohen and Wills 1985), and is a coping resource (Thoits 1995) when one faces with the stressors. Numerous research assert that individuals with high level of social support have high level of wellbeing, as well (Daniels and Guppy 1994; Kong and You 2013; Malkoç and Yalçin 2015; Tian et al. 2013; Winefield et al. 1992; Zhao et al. 2014), and lower level of emotional and behavioral difficulties (Arslan 2016a, b; Doğan 2008; Duru 2008a; Stevens et al. 2013; Sperry and Widom 2013). In addition, many other studies support the mediating and moderating role of social support in the context of negative life events (Cicognani 2011; Duru 2008b; Murray et al. 2013; Sperry and Widom 2013; Zhou et al. 2013). Holt and Espelage (2005), for example, referred to the moderating role of social support on the relationship between child maltreatment experiences and psychological outcomes in adolescents. In view of the theoretical framework of importance of social relationships for mental health and wellbeing (Cohen and Wills 1985; Diener and McGavran 2008) positive relationships with others are considered as an important dimension of positive psychological functioning of an individual (Ryff 1989). Therefore, individuals with high level of social support have high level psychological wellbeing (Gençöz et al. 2004; Glozah 2013; Lavasani et al. 2011; Özden 2014). Furthermore, Turkish community is considered as relatively a collectivist society (Duru and Poyrazlı 2011), and the importance of obedience, closeness, and loyalty to parents and society is highlighted rather than the independence or autonomy in the socialization process (Karakitapoglu-Aygun and Imamoglu 2002). Moreover,

considering the important role of cultural factors on individual's wellbeing (Benet-Martínez and Karakıtapoğlu-Aygün 2003; Diener and Suh 2000), Duru and Poyrazlı (2011) underlined the importance of belongingness and close social relationships in coping with negative life events for Turkish culture. In related a meta-analytic study Yalçın (2015) investigated the effect of social relationships on wellbeing indicators in studies conducted in Turkey, and he reported that social support has a moderate effect on overall wellbeing. Taken all together, present study supports the buffer-effect and protective role of social support on psychological wellbeing in the context of social exclusion experiences, confirming that higher family, friend and school support related to higher level psychological wellbeing in Turkish adolescents.

Lastly, the findings indicated that social support resources varied in terms of gender. The mediation analyses for the role of gender revealed that female students use more social support resources to protect their psychological wellbeing than male students in coping with social exclusion. Specifically, the increase of social exclusion leads to the decrease of perceived social support for both male and female groups. However, peer and school support were significant predictors of psychological wellbeing in male group, while all support resources (family, school and friend) significantly predicted psychological wellbeing in female group. Moreover, moderation analyses showed that school support moderated the association of social exclusion and female students' psychological wellbeing, while peer support had a moderator role on this association for male students. Given the life-span developmental perspective on the association between social networks and health (Alwin and Wray 2005), male and female adolescents differ in their sources of social support. Moreover, early experiences and cultural factors–such as society"s child rearing approach or the quality of attachment– play a critical role in development of social relationships (Umberson et al. 1996). Therefore, social relationships have different effects on both genders (Blyth and Foster-Clark 1987) and their psychological wellbeing (Umberson et al. 1996). Females are generally considered to receive and give more social support in their social relationships than males (Reevy and Maslach 2001). However, there are still evidences indicating the mixed results in regard to whether females need more social support resources than males (e.g. Olsson et al. 2016; Nilsen et al. 2013; Son et al. 2014; Zhang et al. 2015). For example, Karataş (2012) found that female students need higher level of teacher and friend support than males, while Zhang et al. (2015) stated the importance of social support resources -family, friend and other support- for male adolescents in coping with stress. Moreover, while many studies documented that both genders reported a similar level of social support from parents and the teacher (Demaray and Malecki 2002; Malecki and Demaray 2003), others stated that girls perceive more peer support than males, yet males perceive more parents support than females (Cheng and Chan 2004; Frey and Röthlisberger 1996; Furman and Buhrmester 1992). However, current study suggests that school support moderated the relationship of social exclusion and female adolescents' psychological wellbeing, while peer support had a moderating role in this association for male group. Furthermore, all social support resources-family, friend and school- fully mediated this association in female group, yet family support had no mediating role in male group. Consisted with these results, research stated that females more likely to use social support as a coping resource than males (Frydenberg and Lewis 1991; Rueger et al. 2010). In regard to the sources of social support, females use more social support from close friends than classmates, parents, and teachers, while

male perceive less from all (Camara et al. 2014). Although it theoretically and empirically remains unclear whether social support is more influential for positive development and wellbeing across gender (Umberson et al. 1996; Flaherty and Richman 1989; Taylor et al. 2000), research stated that females tend to need more emotional support, whereas males tend to need instrumental support (Olsson et al. 2016; Malecki and Demaray 2003; Reevy and Maslach 2001). For example, Rueger et al. (2010) found that female adolescents reported higher level of social support than males, and social support resources were strong predictors of psychological and academic adjustment for female adolescents. Zhang et al. (2015) highlighted the partial mediator role of family, friend and other support resources in the association between perceived stress and depressive symptoms in female adolescents, and reported that friend support moderated the depressive symptoms in female group against perceived stress. In addition, Day and Livingstone (2003) stated that male and female differ in their perceptions of negative life events, and generally females have higher levels of stress in adolescence (Camara et al. 2014). If so, this perception may influence their use of sources of social support in coping process with social exclusion. In sum, findings of the present study contribute to the literature on gender differences in social support resources, but literature for the empirical evidences of gender differences remains unclear. Therefore, there is still a need to understand the role of gender differences in social support.

6 Conclusion

This study investigated the mediating and moderating effect of social support sources on the effect of social exclusion on youths' psychological wellbeing at school. Study results showed that social support resources-family- friend and school- reduce the negative influences of social exclusion, thereby protect youths' psychological wellbeing, and serve as a buffer when faced with exclusion. Moreover, the results indicated the importance of gender differences for social support in coping with the exclusion for Turkish adolescents. In particular, female adolescents use the school support as a coping strategy, whereas male adolescents use the friend support in coping with social exclusion at school. Therefore, this study has important implications, especially for school counselors in the context of mental health services at school. Firstly, considering the impacts of social exclusion on youth's psychological wellbeing, school counselors can design school–based prevention and intervention services such as psychological counseling, group counseling for adolescents who perceive themselves as socially excluded in school. School counselors can use these programs to enhance youths' psychological wellbeing while reducing the negative feelings such as anxiety, grief, jealousy, and loneliness which are the outcomes of social exclusion (Baumeister and Leary 1995). Moreover, considering the effects of social exclusion on fundamental human needs (Williams 2009); these programs might indirectly contribute to youths' positive development in school settings. Following, given the mediating and moderating effect of social support, school counselors or other mental health professionals can enhance the protective role of social support using the psycho–educational programs in order to prevent social exclusion's negative outcomes. To this end, social support-based prevention and intervention services can be designed for both social

support providers and receivers (Yıldırım 1999). In the light of social support literature supporting the protective role of it on youths' mental health and wellbeing (Avcı and Yıldırım 2014; Baumeister and Leary 1995; Osterman 2000; Yıldırım and Ergene 2003; Williams and Nida 2011; Zhang et al. 2015), these programs may not only contribute to individuals' coping strategies against social exclusion experiences but also other negative life experiences. Secondly, the findings indicated that friend support serves as a moderator factor for male adolescents, whereas school support has a moderator role in coping with social exclusion. Consequently, gender differences should be taken into account in the development process of social support-based services. Finally, concerning the role of social skills in the development of social support perceptions (Cohen et al. 1986), social skill programs can be organized for both support providers and adolescents with lack or low level of social support at school settings. Social support can be promoted via these programs, and counselors may enhance and protect adolescents' psychological wellbeing by using social support resources. Additionally, experimental studies can be designed to test the effectiveness of these programs in school settings. Overall, current study suggests important implications for especially school counselors in the context of prevention services.

6.1 Limitations

Despite these important contributions of the present study, there are also several limitations which should be addressed. First of all, the present study was conducted with using self-report data and cross-sectional approach. These are considered important limitations for generalizability of the study results. Considering the limitation of using self-report data and cross-sectional analyses, longitudinal and experimental designs should be conducted to understand the protective and buffer role of social support by using a variety of data-collection methods. Secondly, the sample consisted of students enrolled in a secondary and high school located in a small urban city in Turkey. In addition, the participants comprised of adolescents that were obtained via convenience sampling approach. This is considered as a limitation for the generalizability of findings, and thus, further studies are required to investigate the moderating and mediating effect of social support for different samples in the context of social exclusion. Finally, this study examined the protective role of family, friend and school support on psychological wellbeing against social exclusion experiences. Further research might focus on the protective role of different support resources (e.g. teacher, classmate) and types (e.g. emotional, instrumental support) on youths' wellbeing. Moreover, based on results of present study, given that male and female adolescents use different social support sources, future research is necessary to explore gender differences for social support based on theoretical frameworks, such as a life-span developmental perspective (Alwin and Wray 2005).

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