The Mediating Role of Sibling Relationships in the Relationship Between Parental Achievement Support and Pressure and Psychological Resilience*

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ABSTRACT

A healthy family climate, including parents' attitudes towards their children and the quality of sibling relationships, is essential for child resilience. One of the domains where parental attitudes are determinative is the children's academic life. In an unhealthy family climate, for instance, parental pressure for academic success may cause dysfunctional sibling relationships and low-level psychological resilience in children. The aim is to investigate the mediating role of sibling relationships in the association between parental academic achievement pressure and support and children's resilience levels. Five hundred and one children (10–14 years old) participated in the study. Children completed the Parent Academic Achievement Pressure and Support Scale (PAAPSS), Sibling Relationship Questionnaire (SRQ), Child and Youth Resilience Measure (CYRM-12), and Demographic Information Form. Findings from the two different mediation models of Hayes Process Macro revealed that sibling relationship characteristics of warmth/intimacy, status/power, and conflict mediated the relationship between parental academic support and resilience levels. However, rivalry was not a significant mediator. All parental (i.e., support) and sibling relationship variables explained the 41% variance in child resilience (Model 1). Sibling relationship characteristics of warmth/intimacy, status/power, rivalry, and conflict mediated the relationship between parental academic pressure and resilience. All parental (i.e., pressure) and sibling relationship variables explained the 35% variance in child resilience (Model 2). To improve children's resilience, we propose healthier parental attitudes toward academic issues and more functional sibling relationships.
Keywords:
Achievement pressure, achievement support, psychological resilience, sibling relationship

1. Introduction

Increasing epidemics, adverse economic conditions, and risks led by technological developments (e.g., bullying) have started to draw the focus of societies back to the phenomena that adversely influence human life. For instance, the COVID-19 pandemic was one of the most terrible disasters humanity has faced. During those days, one of the most emphasized points was the need to increase the resilience of individuals, especially healthcare workers, against hopelessness, helplessness, and burnout (Shaw, 2020). Expectations that such epidemics and economic difficulties will continue (Şahinöz et al., 2022) push us to search for ways in which children can be made stronger despite these adverse conditions. The concept of resilience, which is described as "good outcomes in spite of serious threats to adaptation or development" (Masten, 2001, p. 228), is one of the most remarkable classes of phenomena. The emphasis on context is substantial when the topic is resilience. Masten (2001) suggests that one of the criteria for being defined as resilient is being exposed to a considerable risk factor for the development of a person. Similarly, we presume that family of origin experiences can be a

risk or promoting factor for resilience (Hawley & DeHaan, 1996). Because no matter how much adversity they faced, individuals from families with a healthy balance of cohesiveness and adaptability, besides effective communication, were more resilient (Carr & Kellas, 2018). Thus, the current study focused on familial factors in understanding resilience among adolescents. However, resilience is not an isolated personality trait (Atwool, 2006), thereby requiring an understanding of other risky and stressful situations that affect resilience.

1.1. Theory of Resilience

There is ambiguity surrounding the definition and nature of resilience. The term has various overlapping meanings, and ambiguities usually highlight the construct as a characteristic, coping mechanism, trait, or endpoint (Luthar et al., 2000). However, Pooley and Cohen (2010) provide a clear definition of resilience as the capacity to use internal and external resources to challenge various contextual and developmental difficulties. The concept of resilience has a dynamic and complex structure, and plenty of models have been developed to explain its underlying mechanisms. For example, when the concepts of family and resilience came together, the field of family resilience emerged, and many models were developed to explain how resilience works in a family context, as researchers reviewed (Van Breda, 2001). However, the theoretical model of our study is closer to the models that prefer to evaluate the resilience levels of individuals according to the context in which they survive (Masten, 2001). One of these current models of resilience attempts to be more holistic and multidimensional with three components (Liu et al., 2017): (1) The interpersonal component refers to the ability to develop understanding and harmony in close and social relationships. Resilience emerges more likely when an individual manages the impacts of adversity (e.g., a crisis) and the effects are absorbed by supportive relationships (Herrman et al., 2011). (2) The intrapsychic (or internal) component is related more to health attitudes and behaviors, stress-reactive mechanisms to challenges, psychological functioning, and biological components. (3) Socio-ecological factors refer to external resilience, such as opportunities for an individual to access social support services, social institutions, or socioeconomic status. This three-dimensional perspective is also used in the evaluation of resilience. The well-known scale of resilience (Child and Youth Resilience Measure-28, CYRM-28; Liebenberg et al., 2012) confirmed the individual, relational, and contextual components. However, research on youth resilience mainly emphasizes individual (Bacchi & Licinio, 2017) and external factors (Kokou-Kpolou, 2021), with the interpersonal component indicating significant others' (i.e., family) contributions to youth resilience being rarely concentrated by researchers.

For the theoretical framework of the current study, we broadened our perspective with Bronfenbrenner's (1977) Ecological Theory. Bronfenbrenner (1977) assumes interrelated systems (i.e., microsystem, mesosystem, exosystem, macrosystem) in which there is two-way communication between the individual and the environment. According to theory, human development unfolds through complicated reciprocal interactions between individuals, their families, and other members of society or institutions around them. The *microsystem*, which includes significant others or social institutions (e.g., school) with which the individual directly connects almost every day, is the core and most influential component of the model (Bronfenbrenner, 1977). The role of microsystems in resilience is primary because it determines (risks or supports) the direction of resilience and consists of family-child relationship elements (Ungar et al., 2013). Researchers emphasize identifying the impact level of the child's resilience in terms of understanding which layer (e.g., microsystem) of the system the risk arises from and preventing the spread to other layers (Masten et al., 1990). Family-related variables may play a role in an individual's resilience levels. For instance, researchers (Patterson, 2002; Walsh, 2006) suggested several variables, such as family cohesion and adaptability, in understanding family members' resilience. We hypothesize two other family-related factors that may be interrelated with the resilience levels of adolescents in the present study: perceived parent academic achievement pressure or support on children that resulted in the quality of sibling relationships. We thought these two family-based factors may contribute to the basic understanding of resilience in a microsystem.

1.2. Parental Support or Pressure

Parents' contributions to children's development in different domains might be very helpful. For instance, in the academic domain, parental involvement improves the skills of students, indicating higher attention, motivation, concentration, effort, and perceived competence (Gonzalez-DeHass et al., 2005). Similarly, parental academic support increased the engagement and academic achievement of the students (Chen, 2005). Parents have a substantial role in their children's achievements, not only during a certain period but

throughout their lives, with a strong relational bond. Moreover, emotional support is more contributional than informational support (Kim & Park, 2006). Parents' academic support is a multidimensional construct consisting of emotional support (e.g., encouraging), instrumental support (e.g., engaging in learning activities together), and cognitive support (e.g., being by their side when they are disappointed) (Chen, 2005). Support from parents is a protective factor that allows students to cope with the anxiety they experience, resulting in higher academic achievement (Cutrona et al., 1994).

Parents' support for achievement may involve praising the achievement, giving confidence, believing, or standing by. The opposite of this concept is achievement pressure, which means that parents want their children to study excessively, expect high grades, and compare and underestimate their success (Kapıkıran, 2016). Given that achievement pressure causes stress and anxiety for children (Antony & Swinson, 2009), resilience may be expected to be adversely affected. Children undoubtedly need achievement support more when they are busy with school lessons and central exams (e.g., LGS) (Kesici & Aşılıoğlu, 2017). Representing the transition from childhood to adolescence, the secondary school years may contain numerous challenging experiences and risk factors. Central exams (e.g., LGS and YKS), which are key determinants of how the student's academic life will progress, may be examples of stressful situations. Besides, parents' behaviors (expectation of achievement) and pressure may play a role in stress for children (Hanımoğlu & İnanç, 2011; Kulakow et al., 2021). However, contrary to expectations, the literature indicates that parental pressure or expectations may motivate the children, resulting in higher achievement in some Far East countries due to cultural context (Kim & Park, 2006). Parental support (parent achievement support), a reflection of family communication, is a stress-reducing factor for secondary school students (Kapıkıran, 2016). Furthermore, the search for identity caused by the onset of puberty, impulsivity (İnanç et al., 2017), central exams, and the increasing course intensity in parallel with these exams, as well as the increase in study hours (Güngör, 2021), may be sources of stress for children. These risky experiences (exam stress and the fluctuating processes of adolescence) adversely affect both students and family members (Yalçın, 2019). Although adverse childhood experiences are a risk factor, open family communication and close family relationships are protective factors in promoting resilience (Woods-Jaeger et al., 2018). From a theoretical perspective, a family is a dynamic structure with subsystems such as the (1) spouse subsystem, (2) parent-child subsystem, and (3) sibling subsystem, and all these subsystems are interrelated with distinct boundaries (Colapinto, 2019; Minuchin, 1974). In this respect, the impact of parents on the development of children may be greater than thought because parent-induced crises (e.g., marital breakdown) do not affect children individually but the family as a whole. Moreover, one of the risks for sibling bonds in a family is the lack of parental presence and, in general, their influence on children (Nichols, 1986). Thus, we are currently investigating how parental support or pressure affects sibling relationships in the current sample.

1.3. Sibling Relationships

Even though many children experience adverse in the family context, little effort has been focused on how the sibling subsystems survive during and in the aftermath of these crises (Nichols, 1986). According to some leading theorists (Minuchin, 1974; Nichols, 1986), the parental subsystem is influential on the sibling subsystem. For instance, the effect of parental pressure can be so severe that it leads to somatic complaints (e.g., heart palpitations, shortness of breath, sweating, gastrointestinal disorders, headache) and depressive symptoms in students (Stoeber & Rambow, 2007). In addition, parents' (academic) achievement pressure increases the competition between peers and siblings by promoting the children's perfectionism efforts (Yıldırım et al., 2008). The competitive environment resulting from achievement pressure negatively affects relations between siblings and even increases violence within close relationships (Volling, 2003). This situation is expected to disrupt intra-family communication (the microsystem). Hence, this study assumes that sibling relationships may be a risk or protective factor for resilience and have a significant role in shaping children's relationships with their parents, teachers, and friends (Kılıçaslan, 2001). On the other hand, parents can have a favorable impact on sibling relationships. For instance, pleasant sibling relationships are more likely to emerge when the parents model conflict resolution strategies (e.g., perspective-taking) for children in the family system (Siddiqui & Ross, 2004). Sibling relationships have a holistic view that four dimensions (i.e., warmth or closeness, conflict, rivalry, status or power) of sibling relationships should be evaluated together. For instance, warmth or conflict are interrelated dimensions. Sibling relationship quality is not free from conflict, or a sibling relationship is not only improving when warmth or closeness is dominant. When siblings

learn to resolve their conflicts constructively, they are more likely to transfer these conflict-resolution strategies to peer relationships (Volling & Blandon, 2003). Moreover, the power of communication between siblings also shapes other social relationships (Seligman & Darling, 2017). The fact that adolescents regulate their relationships with parents and friends similarly to their existing sibling relationships (Defoe et al., 2013) Limited studies were conducted on the relationship between parental relations and students' resilience levels (Lee et al., 2013), indicating that warm sibling relationships promote resilience in youths (Mota & Matos, 2015; Wojciak et al., 2018). However, there is no such study specifically investigating (to our knowledge) parents' attitudes toward academic achievement support or achievement pressure, the quality of sibling relationships, or students' resilience levels in a structural model.

1.4.Rationale for the Current Study

Resilience has been one of the main areas of positive psychology (Seligman, 2002). Moreover, resilience is one of the family-based protective factors across ecosystemic levels, along with other family variables such as parenting style, family cohesion, and the value of children's accomplishments (Waller, 2001). In our model's formulation, poor resilience is considered a potential symptom-producing outcome, and greater resilience is a protective factor of well-being. The mechanism behind this formulation assumes that parental support or pressure may disrupt not only the spousal subsystem but also sibling relationship quality. While broken relationships (e.g., divorce) between parents are challenging factors in themselves (Emery & Forehand, 1994) for children, the deterioration of sibling relationships may have a devastating effect on children's resilience levels. We chose sibling relationship quality as a mediator because the variable has the potential to reflect interpersonal family dynamics in understanding how children's resilience is affected when the parental relationship has risks. We suppose one of the subsystems that will be affected by the collapse of the parental subsystem with decreasing parental dysfunction and parental support is the sibling subsystem. On the other hand, when the parent's subsystem has a good-functioning with sibling subsystem, this may be an indicator of children's resilience. The relevant literature on preventive counseling also suggests the need for gaining resilience (secondary school years), which is placed in the empowerment of individuals (Savi Çakar & Kılınç, 2019). This may be interpreted as a sign of the contribution that the study will offer to practitioners and the related literature. Still, no studies have examined the mediating role of sibling relationships in the relationship between parental achievement support or pressure and resilience from an integrative perspective. In other words, we hypothesize that our participants react to parent pressure or support with an decreased or increased sibling relationship quality. However, we assume that this association can be better understood when resilience is integrated into the model. In service of this aim, the following hypotheses are presented:

> H_1: The quality of the relationship between siblings (warmth/intimacy, power/status, conflict, and rivalry) has a mediating role in the relationship between parent achievement support and resilience.

> H_2: The quality of the relationship between siblings (warmth/intimacy, power/status, conflict, and rivalry) has a mediating role in the relationship between parent achievement pressure and resilience.

2. Methodology

2.1. Participants and Sample

The current study was conducted with 501 students (259 girls, 51.7%; 242 boys, 48.3%) enrolled at five different secondary schools located in the central district of Ordu province. The participants were chosen by purposive sampling (Andrade, 2021), allowing researchers to conduct their studies with only samples of particular interest. The main participation criterion for the study was having siblings. Therefore, children with no sibling were not included in the study. Students not participating in the study took advantage of free time through in-class activities (e.g., reading) under the supervision of the classroom teachers while other participants answered survey items. The mean age of the participants was 12.23 (SD = 0.98), and their age range was between 10 and 14 years. 168 (33.5%) participants were 6th graders, 149 (29.7%) of them were 8th graders, 137 (27.3%) were 7th graders, and 47 (9.4%) were 5th grade students. 491 (98%) students' parents are alive. The mothers of four students (0.8%) are alive, while their fathers are not. Three (0.6%) students' fathers are alive but their mothers are not. Three students' parents (0.6%) passed away.

While the parents of 462 (92.2%) students lived together, those of 39 (7.8%) students did not. The majority of their mothers had high school (183, 36.6%), primary school (151, 30.1%), undergraduate, and graduate (133, 26.5%) education. On the other hand, the vast majority of their fathers had undergraduate and graduate education (174, 34.7%), high school (168, 33.5%), and primary school (132, 26.3%). 312 (62.3%) students had two siblings, 152 (30.3%) had three siblings, 32 (6.4%) had four siblings, and 5 (1%) had five siblings. 225 (44.9%) students were the eldest, and 206 (41.1%) were the second-oldest siblings. The academic achievement mean of the students was reported to be 90.60 for the previous semester ($SD = 10.15$). Moreover, the secondary school years are the years that intervention programs focus mostly on preventive counseling practices (King, 2001). The significance of resilience in terms of empowering children and the effectiveness of level I prevention services in the secondary school years (11–14 years), also known as the adolescence period (Korkut-Owen, 2015), are the reasons for carrying out the present study with secondary school students.

2.2. Data Collection Instruments

Child and Youth Resilience Scale (CYRS-12): The scale, which evaluates the resilience levels in adolescents, was first developed as a 28-item form by Liebenberg et al. (2013). The 12-item short form of this form, including three subscales and eight dimensions, was also developed by Liebenberg et al. (2013). The factor loads of the items in the scale, the Turkish adaptation done by Arslan (2015), range from .54 to .81. The Cronbach's alpha internal consistency coefficient was identified as .91 in the Turkish version of the scale. The item example is "My family is with me in difficult times." Items are rated on a 5-point scale from "Describes me a lot (5)" to "Does not describe me at all (1)" (Arslan, 2015). The Cronbach alpha coefficient of the scale was found to be .85 in our study. The range of scores that can be obtained from the scale varies between 12 to 60, and high scores indicate higher levels of resilience.

Parent Academic Achievement Pressure and Support Scale (PAAPSS): The scale developed by Kapıkıran (2016) measures how much pressure or support parents put on their children's academic achievement through the lens of students studying at secondary and high schools in Türkiye. The items are rated on a 5-point Likert-type scale from "always does (5)" to "never does (1)". The scale has 15 items, resulting in a two-factor structure. The parent academic achievement pressure subscale includes ten items. The parent academic achievement support subscale has five items. An example of achievement pressure is "My parents get angry at me when I'm not doing well in my classes." The item example for achievement support is "My parents say I'm successful." The Cronbach's alpha coefficient was found to be .82 for the total score. The Cronbach's alpha coefficients were found to be .84 for the achievement pressure subscale and .71 for the achievement support subscale. Moreover, the Cronbach alpha coefficient of the scale was .73 for the total score, .86 for the parent achievement pressure subscale, and .82 for the parent achievement support subscale in our study. The scores range between 10 and 50 for achievement pressure and 5 and 25 for achievement support. High scores in both subscales indicate higher levels of parent achievement pressure or achievement support.

Sibling Relationships Questionnaire (SRQ): The scale developed by Furman and Burhmester (1985) was adapted into Turkish by Apalaçi (1996) to evaluate the quality of sibling relationships. Being a 5-point Likert scale ranging from very much (5) to rarely (1), the tool yields 48 items and four factors (warmth/closeness, relative status/power, conflict, and rivalry). The internal consistency coefficients (Cronbach's Alpha) for these factors were .90 for warmth/closeness, .78 for relative status/power, .87 for conflict, and .73 for rivalry (Furman & Burhmester, 1985). The Cronbach alpha coefficients in our study, coefficients were identified to be .87 for the total score, .93 for warmth/closeness, .72 for relative status/power, .88 for conflict, and .79 for rivalry. The item example is "How often do you and your sibling tell each other everything?".

Personal Information Form: A personal information form was prepared by the researchers to determine the participants' demographic characteristics, such as gender, age, class, parent information (e.g., whether they are alive or not), and the number and rank of siblings.

2.3. Process

Ethics Committee permissions required for the study were obtained from the Ordu University Social Sciences Ethics Committee (Decision No. 2021-234) and the Ordu Provincial Directorate of National Education (commission decision dated February 16, 2022). The survey package was administered by the second researcher to 5th–8th grade secondary school students (10–14 years old). The participants were informed about the aim, scope, average response time, and data collection processes. The scales were filled out in the classroom

environment (voluntarily) by participants. 'Volunteer approval' was requested from the participants through the 'Volunteer Participation Form' available on the first page of the questionnaire. Within the consent form, the second author informed students that they were free not to participate in the study. However, she did not observe students who did not want to participate. The data collection process took approximately one month, and the data processing into SPSS 22 (IBM, 2013) took about 15 days.

2.4. Data Analysis

Two different mediation models (Model 4) were tested by controlling the effects of variables such as age, gender, number of siblings, and sibling rank through the use of Process Macro (3.5.3) developed by Hayes (2018) and the Bootstrapping process with a 5,000 resampling method at a 95% confidence interval. Descriptive statistical analyses, assumptions (e.g., normality, missing data, extreme values, multiple similarity-multicollinearity) (Field, 2013), and mediation analyses were performed through the SPSS 22 (IBM, 2013), and JASP Team (2019)

2.5. Ethical

Ethics Committee permissions required for the study were obtained from the Ordu University Social Sciences Ethics Committee (Decision No. 2021-234) and the Ordu Provincial Directorate of National Education (commission decision dated February 16, 2022).

3. Results

3.1. Descriptive and Bivariate Correlations

Considering the means of the participants, they reported having a high level of perceived parent achievement support ($M = 21.52$, $SD = 4.01$), warmth between siblings ($M = 75.10$, $SD = 16.26$), power ($M = 37.88$, $SD = 7.56$), and resilience ($M = 49.47$, $SD = 8.08$). Besides, the participants also noted low levels of parent achievement pressure ($M = 25.19$, $SD = 9.64$), conflict ($M = 24.91$, $SD = 8.47$), and rivalry ($M = 0.31$, $SD = 0.43$). The correlations across the variables were mostly significant and demonstrated relationships at varying levels, from low to medium. The strongest relationships across the variables were found between warmth and power, with a .58. The relationship between parent achievement support and resilience was found to be .53.

Table 1. *Descriptive and bivariate correlations related to the variables (N = 501)*

Variables	1.	2.	3.	4.	5.	6.	7.
1. Parental Achievement Support	-						
2. Parental Achievement Pressure	-.32**	-					
3. Warmth	.41**	-.26**	-				
4. Power	.27**	-.10*	.58**	-			
5. Conflict	-.15**	.39**	-.37**	.07	-		
6. Rivalry	-.32**	.27**	-.25**	-.08	.30**	-	
7. Resilience	.53**	-.37**	.46**	.29**	-.35**	-.30**	-
M	21.52	25.19	75.10	37.88	24.91	0.31	49.47
SD	4.01	9.64	16.26	7.56	8.47	0.43	8.08
Range	5-25	10-50	22-105	12-60	9-45	0-2	19-60

Note. ** $p<0.01$; * $p<0.05$ level (two-tailed).

3.2. Mediation Tests

3.2.1. Parent Achievement Support (First model): On analyzing the non-standardized regression coefficients, parent achievement support had a significant direct effect (after controlling for the effect of gender, age, number, and rank of siblings) on warmth ($B = 0.40$, $p<0.001$, 95% CI [0.32, 0.48]), power ($B = 0.22$, $p<0.001$, 95% CI [0.16, 0.29]), conflict ($B = -0.18$, $p<0.001$, 95% CI [-0.28, -0.07]), and rivalry ($B = -0.17$, $p<0.001$, 95% CI [-0.21, -0.12]). Besides, warmth ($B = 0.09$, $p<0.05$, 95% CI [0.01, 0.18]), power ($B = 0.15$, $p<0.005$, 95% CI [0.05, 0.25]), and conflict ($B = -0.17$, $p<0.001$, 95% CI [-0.23, -0.11]) were determined to have significantly direct effects on the participants' resilience levels. However, rivalry ($B = -0.12$, *ns.*) did not significantly affect participants' resilience levels.

According to this model, the mediation effects (taking into account the confidence intervals determined by the bootstrap method and after controlling for the effects of gender, age, number, and rank of siblings) of warmth or intimacy ($\beta = 0.04$, 95% CI [0.00, 0.09]), status or power ($\beta = 0.04$, 95% CI [0.01, 0.07]), and conflict ($\beta = 0.04$, 95% CI [0.01, 0.06]) across sibling relationships were found to be significant in terms of the relationship between parent support and secondary school students' resilience levels. Rivalry between siblings ($\beta = 0.02$, 95% CI [-0.00, 0.05]) did not have a significant mediating effect on the relationship between parent support and the secondary school students' resilience levels.

All of the variables in this model accounted for 41% of the variance in the resilience variable (considering the direct effects).
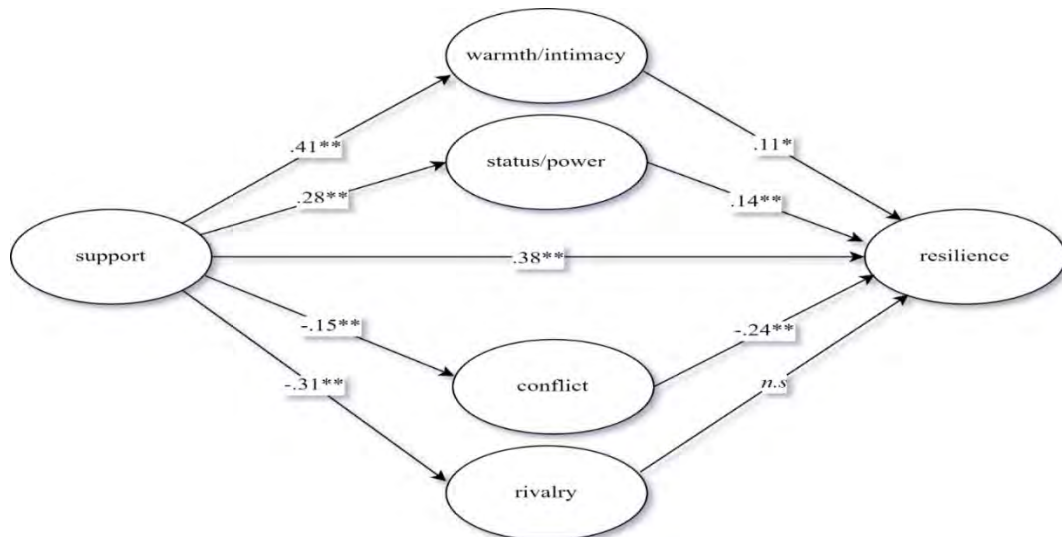

Figure 1. Standardized Regression Coefficients in the Mediation Model with Parent Academic Achievement Support, **$p < .01$, *$p < .05$

3.2.2. Parent Achievement Pressure (Second Model): Upon analyzing the non-standardized regression coefficients, the direct effect of parent achievement pressure (after controlling for the effect of gender, age, number, and rank of siblings) was found to be significant in terms of warmth ($B = -0.22$, $p<0.001$, 95% CI [-0.29, -0.15]), conflict ($B = 0.40$, $p <0.001$, 95% CI [0.32, 0.48]), and rivalry ($B = 0.12$, $p <0.001$, 95% CI [0.08, 0.16]). Parent achievement pressure did not significantly have an effect on the power ($B = -0.06$, *ns.*). On the other hand, the direct effects of warmth ($B = 0.18$, $p<0.001$, 95% CI [0.09, 0.27]), power ($B = 0.16$, $p<0.005$, 95% CI [0.06, 0.27]), conflict ($B = -0.10$, $p<0.005$, 95% CI [-0.17, -0.04]), and rivalry ($B = -0.20$, $p<0.005$, 95% CI [-0.08, -0.32]) were noted to be significant in terms of the participants' resilience levels.

As regards the second model, the mediation effects (taking into account the confidence intervals determined by the bootstrap method and after controlling for the effects of gender, age, number, and rank of siblings) of warmth ($\beta = -0.06$, 95% CI [-0.09,-0.03]), power ($\beta = -0.01$, 95% CI [-0.03,-0.00]), conflict ($\beta = -0.06$, 95% CI [-0.10,-0.02]), and rivalry ($\beta = -0.03$, 95% CI [-0.06,-0.01]) between sibling relationships were found to be significant in terms of the relationship between parent pressure and secondary school students' resilience levels. All of the variables in this model accounted for 35% of the variance in the resilience variable (considering the direct effects).
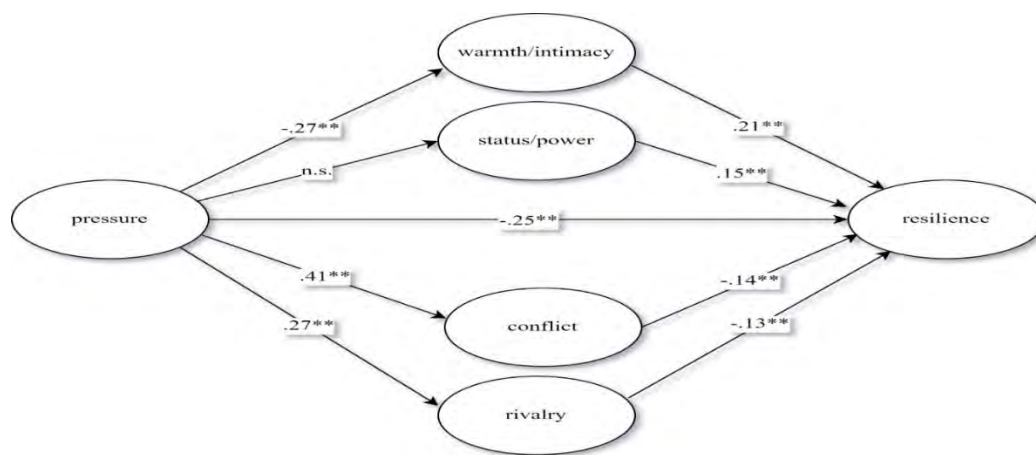
Figure 2. Standardized Regression Coefficients in the Mediation Model with Parent Academic Achievement Pressure, **p < .01*

4. Discussion

The results revealed that the mediating roles of warmth, perceived power, and conflict in sibling relationships (after controlling for the effects of gender, age, number of siblings, and sibling rank) were significant in the relationship between parent achievement support and students' resilience levels. However, we found no significant mediator role in rivalry **(Model 1)**. The first model demonstrated that students with higher parent achievement support reported higher warmth, perceived power, conflict with their siblings, and greater resilience. Rivalry did not mediate the relationship between parent achievement support and resilience levels. Moreover, all sibling relationship variables were significant mediators in the relationship between parent achievement pressure and students' resilience levels **(Model 2).** The second model demonstrated that students with higher parent achievement pressure reported lower warmth, perceived power, and resilience. On the other hand, they reported higher conflict, rivalry, and lower resilience. More specifically, the increasing parental achievement pressure negatively influenced the siblings' relationships (by decreasing sibling warmth and closeness and perceived power while increasing conflict and rivalry) and decreased the students' resilience levels. Close and warm sibling relationships contribute to the child, such as providing emotional control and healthy peer relationships, and vice versa, leading to problems with peers, dysfunctional behaviors, and negative social and emotional development (Volling & Blandon, 2003), which are consistent with the results of the current study. The relevant literature confirmed that children's resilience levels increase as the warmth and perceived power between siblings increase (Wojciak et al., 2018). It is not likely to support children's achievement in sibling relationships where increasing achievement pressure is dominant since the focus of parent achievement pressure is built on attitudes such as not seeing achievement as sufficient and comparing (Kapıkıran, 2020). Given that the perceived power between siblings decreases with the increase of parent authoritarian attitudes and parent pressure (Erginoğlu, 2015), it is most probable that parental pressure will lead to an obstacle for siblings to support each other. Because younger siblings observe the older as the authority and interact with their peers by emulating them, thus solving their problems (Conger et al., 2009). Functions such as socialization and learning in sibling relationships will deteriorate when this supportive process created by the perceived power between siblings is not present. When communication and learning are insufficient in the family environment, children cannot generalize these skills to other areas of life (Dunn, 2002). As power is perceived, a reflection of the age difference among siblings weakens conflict, and rivalry between siblings is likely to arise. The fact that power (e.g., control behaviors) is an antecedent of conflicts between siblings (Raffaelli, 1992) and dysfunctional parental interventions such as achievement pressure on siblings are modeled by children (Milevsky et al., 2011) is in line with this view. Besides, children are observed to compete to gain parental love and attention in conflicting family relationships (Faber & Mazlish, 1987). For instance, since parents' attitudes, such as seeing one sibling as different from the others, disrupt the child's adaptation, the child may feel competitive by seeking parental support (Jajodia & Roy, 2022). Sibling relationships (Lamb & Sutton-Smith, 2014), which offer unique opportunities such as modeling, exploring, and experiencing reconciliation skills, are unlikely to develop in a family environment where conflict, rivalry, and pressure increase. Thus, increased sibling rivalry and conflict will impair resilience. While a healthy

parent-child relationship, effective communication, and positive parental roles increase resilience (Garmezy, 1985), the opposite is expected to decrease it. We concluded that findings of previous research are congruent with the our current research results. Likewise, sibling conflict causes pathological symptoms, and the decrease in warmth between siblings results in internalization (anxiety, depression) and externalization (violence) problems (Dirks et al., 2015), which can also be considered serious risk factors for resilience.

5.Unexpected Findings

The findings suggested that rivalry has no mediation role in resilience. Moreover, when participants reported higher parent achievement support, they indicated higher sibling conflict and resilience. We presume the context of higher parental achievement, support, warmth, and perceived power or status among siblings may be functional even though conflict is observed in positive sibling relationships. The aim may not be to create a conflict-free relationship context. To illustrate, the conflict between siblings may function as an expander of the interaction area, such as the development of social skills and conflict management skills. With the increase in a functional family environment, children can also transfer such skills to their peer relationships (Volling & Blandon, 2003). In other words, parental support may increase the children's conflict management skills, which is not a threat to functional sibling relationships and their resilience. The increase in warmth ensures the continuation of interpersonal interaction in sibling relationships, where conflict is inevitable. Therefore, the destructive effect of conflict may become less common as siblings adapt to new situations (Sherman et al., 2006). Similarly, conflict increases as the warmth between siblings decreases (Buist et al., 2013), meaning that the destructive aspect of conflict may also decrease within warm relationships. Thus, the results indicating that the conflict between siblings may increase resilience along with the positive effect of warmth are in conjunction with the related literature. Likewise, well-managed (mediation, etc.) conflict processes in school environments increase students' problem-solving skills (Shahmohammadi, 2014), ensuring that conflict may have a satisfactory effect on resilience.

Moreover, the rivalry did not mediate the relationship between parental achievement support and resilience skills. When trust in warm sibling relationships, high self-perception, and value-giving behaviors exist (Lamb & Sutton-Smith, 2014), personal attitudes such as gaining superiority or advantage may not be the case. Because positive sibling relationships may be seen as relationships where warmth and perceived power increase, and children's self-perception will be high in such positive relationships (McHale et al., 2012), they are not expected to compete to gain an advantage or respect. It is also probable that perceived power, which means warmth and closeness between siblings with no boundary violations, will also increase in family environments where parent achievement support increases. The related literature revealed that disagreements between siblings are not expected in environments with no differential treatment among individuals (Sheehan, 2000), confirming the finding that competition does not mediate the relationship between parent achievement support and students' resilience levels.

6.Implications for Research

This study investigated the mediating role of sibling relationships in terms of the relationship between parent achievement support or pressure and resilience. The study suggests that sibling relationships and parental attitudes (managing achievement support) be taken into consideration when school counselors examine children's resilience levels. In this regard, this study is expected to shed light on further studies and be a source for practitioners. Our findings are valuable for future research because they indicate how sibling relationships and resilience levels may be related to understanding social and emotional development in a sample of secondary school students. We recommend further research with a similar integrative background, including different developmental stages (e.g., late adolescence), to illustrate whether such a model will emerge similarly. Our findings here can assist researchers in constructing psychosocial interventions. For instance, academics in mental health fields may assist schools' psychological counseling services by constructing psychosocial intervention programs on resilience, conflict resolution, and communication skills using theoretical models comparable to the current model. Moreover, parental attitudes, whether supportive or destructive, are a distinct factor in tandem with sibling relationships and resilience. Future studies may consider including the self-differentiation levels of parents in their models to examine how this model explains sibling relationship quality and resilience levels of children, as self-differentiation has a theoretical conjunction

and association with resilience (Süloğlu & Güler, 2021) in understanding how parents' self-differentiation levels impact other subsystems of the family (i.e., siblings).

7. Implications for Practice

The findings indicating that parent achievement support and pressure are related to secondary school students' resilience through sibling relationships offer a new perspective on the preparation of preventive counseling-based intervention studies for secondary school students. Considering the challenges in the preparation of effective intervention services (Korkut-Owen, 2015; Savi-Çakar, 2018), the results of the study may help practitioners and mental health specialists crystalize their practices. Educators and school psychological counselors may consider the possible impacts of parental achievement pressures on secondary school students' emotional and social development and target creating conflict management and emotional management strategies with their students who suffer from dysfunctional family dynamics, which may improve their skills for better sibling relationships and resilience levels. By trying to reach parents in a school environment through psychosocial intervention programs, de-briefings, or one-on-one meetings, educators and school psychological counselors may raise awareness about the destructive effects of parents' achievement pressure on children's sibling relationships and resilience.

8. Limitations

The present study has several methodological limitations: (1) Our data are based on the self-reports of secondary school students. Therefore, various studies (dyadic or triadic) may be carried out on the evaluation of other family members (mother, father, and sibling). We suggest intergenerational interviews with parents alongside middle school students' self-reports for a more accurate assessment of the parent-sibling subsystem. (2) The sample of the study was limited to secondary school students. It would be beneficial to include different sample groups, such as primary and high schools, in further studies. (3) One main limitation is the lack of cause and effect in the relationships between parental attitudes and siblings' reactions to the changes in parent-child long-lasting relationships. We suggest that longitudinal studies provide a better picture of such structural models.

9. Conclusion

Parents' attitudes towards children-related issues may strengthen or weaken the resilience of adolescents; in the present study, parental achievement support and pressure were considered. More specifically, when parents have more achievement support, siblings have higher warmth or intimacy, power or status, and conflict. However, the higher conflict in the context of parental achievement support may not be a risk for resilience. On the contrary, when parents have an attitude of achievement pressure, children have lower warmth and intimacy, less power and status, and more conflict and rivalry, which may be a risk for their resilience. Thus, the potential harms related to parental achievement pressure and promoting sibling relationship quality strategies should be addressed.

10. References

Andrade, C. (2021). The inconvenient truth about convenience and purposive samples. *Indian Journal of Psychological Medicine, 43*(1), 86-88. https://doi.org/10.1177/02537176209770

Antony, M. M., & Swinson, R. P. (2009). *When perfect isn't good enough: Strategies for coping with perfectionism* (2nd ed). Oakland, United States of America: Harbinger Publications.

Arslan, G. (2015). Psychometric properties of child and youth resilience measure (CYRM-12): The study of reliability and validity, *Aegean Education Journal, 16(1),* 1-12. https://doi.org/10.12984/eed.23397.

Apalaçi, V. (1996). *Psychological adjusment and sibling relationships of older brothers and of children with pervaise developmental disorders* [Unpublished master's thesis, Boğaziçi University]. Institute of Social Sciences, Istanbul.

Atwool, N. (2006). Attachment and resilience: Implications for children in care. *Child Care in Practice, 12*(4), 315–330. https://doi.org/10.1080/13575270600863226

Bacchi, S., & Licinio, J. (2017). Resilience and psychological distress in psychology and medical students. *Academic Psychiatry, 41*(2), 185-188. https://doi: 10.1007/s40596-016-0488-0

Bronfenbrenner, U. 1977. Toward an experimental ecology of human development. *American Psychologist 32* (7), 513–531. https://doi.org/10.1037/0003-066X.32.7.513

Buist, K. L., Deković, M., & Prinzie, P. (2013). Sibling relationship quality and psychopathology of children and adolescents: A meta-analysis. *Clinical Psychology Review, 33*(1), 97-106. https://doi.org/10.1016/j.cpr.2012.10.007

Carr, K., & Kellas, J. K. (2018). The role of family and marital communication in developing resilience to family-of-origin adversity. *Journal of Family Communication, 18*(1), 68-84. https://doi.org/10.1080/15267431.2017.1369415

Chen, J. J. (2005). Relation of academic support from parents, teachers, and peers to hong kong adolescents' academic achievement: The mediating role of academic engagement. *Genetic, Social, and General Psychology Monographs, 131*(2), 77–127. https://doi.org/10.3200/mono.131.2.77-127.

Colapinto, J. (2019). Structural Family Therapy. In Lebow, J.L., Chambers, A.L., & Breunlin, D.C. (eds) *Encyclopedia of Couple and Family Therapy* (pp. 2820–2828). Springer, Cham. https://doi.org/10.1007/978-3-319-49425-8_334

Conger, K. J., Stocker, C., & McGuire, S. (2009). Sibling socialization: The effects of stressful life events and experiences. *New Directions for Child and Adolescent Development, 126*, 45–59. https://doi.org/10.1002/cd.256

Cutrona, C. E., Cole, V., Colangelo, N., Assouline, S. G., & Russell, D. W. (1994). Perceived parental social support and academic achievement: An attachment perspective. *Journal of Personality and Social Psychology, 66*(4), 687. https://doi.org/10.1037/0022-3514.66.2.369.

Defoe, I. N., Keijsers, L., Hawk, S. T., Branje, S., Dubas, J. S., Buist, K., Frijns, T., van Aken, M. A. G., Koot, H. M., van Lier P. A. C., & Meeus, W. (2013). Siblings versus parents and friends: Longitudinal linkages to adolescent externalizing problems. *Journal of Child Psychology and Psychiatry, 54*(8), 881–889. https://doi.org/10.1111/jcpp.12049

Dirks, M.A., Persram, R., Recchia, H. E, & Howe, N. (2015). Sibling relationships as sources of risk and resilience in the development and maintenance of internalizing and externalizing problems during childhood and adolescence, *Clinical Psychology Review, 42*, 145-155. https://doi.org/10.1016/j.cpr.2015.07.003.

Dunn, J. (2002). Sibling relationships. In Smith, P.K. & Hart, C.H. (eds.) *Blackwell handbook of childhood social development* (pp.223-237). Oxford: Blackwell Publishers

Emery, R.E., & Forehand, R. (1994). Parental divorce and children's well-being: A focus on resilience. In R.J. Haggerty, L. Sherrod, N. Garmezy, & M. Rutter (Eds.), *Risk and Resilience in Children* (pp. 64–99). London: Cambridge University Press.

Erginoğlu, E. S. (2015). *Evaluation of sibling relations, mother-father attitudes, behavioral and adaptation problems regarding several variables* [Unpublished master's thesis, Ankara University]. Institute of Educational Sciences, Ankara.

Faber, A., & Mazlish, E. (1987). *Siblings without rivalry*. NY: Avon.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. London: Sage.

Furman, W., & Buhrmester, D. (1985). Children's perceptions of the qualities of sibling relationships. *Child Development, 56*(2),448-461. https://doi.org/10.2307/1129733

Garmezy, N. (1985). Stress-resistant children: The search for protective factors. In J. E. Stevenson (Ed.). *Recent research in developmental psychopathology* (pp. 213-233). Oxford: Pergamon Press.

Gonzalez-DeHass, A. R., Willems, P. P., ve Holbein, M. F. D. (2005). Examining the relationship between parental involvement and student motivation. *Educational Psychology Review, 17*(2), 99-123. https://doi.org/10.1007/s10648-005-3949-7.

Güngör, C. (2021). Analysis of parental perceptions of secondary school students concerning the high school entrance exam (LGS) preparation. *Journal of Education and Humanities: Theory and Practice, 12*(23), 171-200. Retrieved from https://dergipark.org.tr/en/pub/eibd/issue/63474/881182

Hanımoğlu, E., & İnanç, B.Y. (2011). The analysis of the relation among test anxiety, perfectionism and the attitudes of parents of the secondary students who will pass placement test (SBS). *Çukurova University Journal of Social Sciences Institute, 20*(1), 351-366.

Hawley, D. R., & DeHaan, L. (1996). Toward a definition of family resilience: Integrating life-span and family perspectives. *Family process, 35*(3), 283-298. https://doi.org/10.1111/j.1545-5300.1996.00283.x

Hayes, A. F. (2018). *The PROCESS Macro for SPSS and SAS version 3.0* [Computer software].

Herrman, H., Stewart, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T. (2011). What is resilience? *The Canadian Journal of Psychiatry, 56(5)*, 258-265. https://doi.org/10.1177/070674371105600504

IBM Corp. Released 2013. *IBM SPSS Statistics for Windows, Version 22.0*. NY: IBM Corp.

İnanç, B. Y., Bilgin, M., & Atıcı, M. K. (2017). *Developmental psychology*. Pegem Citation Index, 1-293.

Jajodia, P. & Roy, P. (2022). Sibling ıssues in disability: A thematic analysis of sibling, parent & expert perspectives. *International Journal of Disability, Development and Education*, 1-18. https://doi.org/10.1080/1034912X.2022.2060948.

JASP Team (2019). *JASP (Version 0.11.1)* [Computer software].

Kapıkıran, Ş. (2016). Parent academic achievement pressure and support scale psychometricassessment and construct validity: Amongst secondary school and high school students. *Aegean Education Journal, 17*(1), 62-83. https://doi.org/10.12984/eed.07848.

Kapıkıran, Ş. (2020). The mediator role of academic resilience in the relationship between parental academic success pressure and support and test anxiety in adolescents. *Pamukkale University Faculty of Education Journal, 48*, 409-430. https://doi.org/10.9779/pauefd.521230.

Kesici, A., & Aşılıoğlu, B. (2017). Developing a stress scale for secondary school students: Validity and reliability study. *Kastamonu Journal of Education, 25*(6), 2413-2426.

Kılıçaslan, A. (2001). *The effects of family functions and perceived differentiated parental approach on sibling relations* [Unpublished master's thesis, Istanbul University]. Institute of Social Sciences, İstanbul.

Kim, U. ve Park, Y. S. (2006). Indigenous psychological analysis of academic achievement in Korea: The influence of self-efficacy, parents and culture. *International Journal of Psychology, 41*(4), 287-292. https://doi.org/10.1080/00207590544000068.

King, K. A. (2001). Developing a comprehensive school suicide prevention program. *Journal of School Health, 71*(4), 132-137. https://doi.org/10.1111/j.1746-1561.2001.tb01310.x

Kokou-Kpolou, C. K., Jumageldinov, A., Park, S., Nieuviarts, N., Noorishad, P. G., & Cénat, J. M. (2021). Prevalence of depressive symptoms and associated psychosocial risk factors among French University students: the moderating and mediating effects of resilience. *Psychiatric Quarterly, 92*(2), 443-457. https://doi:10.1007/s11126-020-09812-8

Korkut-Owen, F. (2015). *School-based preventive guidance and psychological counseling.* Ankara: Anı Publishing.

Kulakow, S., Raufelder, D., & Hoferichter, F. (2021). School-related pressure and parental support as predictors of change in student stress levels from early to middle adolescence. *Journal of Adolescence, 87*, 38-51. https://doi.org/10.1016/j.adolescence.2020.12.008.

Lamb, M. E., & Sutton-Smith, B. (2014). *Sibling relationships: Their nature and significance across the lifespan*. NY: Taylor & Francis.

Lee, J. H., Nam, S. K., Kim, A. R., Kim, B., Lee, M. Y., & Lee, S. M. (2013). Resilience: a meta-analytic approach. *Journal of Counseling & Development*, *91*(3), 269-279. https://doi.org/10.1002/j.1556-6676.2013.00095.x

Liebenberg, L., Ungar, M., & LeBlanc, J. C. (2013). The CYRM-12: A brief measure of resilience. *Canadian Journal of Public Health*, *104*(2), 131-135. https://doi.org/10.1007/BF03405676

Liebenberg, L., Ungar, M., & Vijver, F. V. D. (2012). Validation of the child and youth resilience measure-28 (CYRM-28) among Canadian youth. *Research on social work practice*, *22*(2), 219-226. https://doi.org/10.1177/1049731511428619

Liu, J. J., Reed, M., & Girard, T. A. (2017). Advancing resilience: An integrative, multi-system model of resilience. *Personality and Individual Differences, 111*, 111-118. https://doi.org/10.1016/j.paid.2017.02.007

Luthar, S.S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543–562. https://doi.org/10.1111/1467-8624.00164

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American psychologist, 56*(3), 227-238. https://doi.org/10.1037/0003-066X.56.3.227

Masten, A., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, *2*(4), 425–444 https://doi.org/10.1017/S0954579400005812

McHale, S. M., Updegraff, K. A. ve Whiteman, S. D. (2012). Sibling relationships and influences in childhood and adolescence. *Journal of Marriage and Family, 74*(5), 913-93. https://doi.org/10.1111/j.1741-3737.2012.01011.x.

Milevsky, A., Schlechter, M. J., & Machlev, M. (2011). Effects of parenting style and involvement in sibling conflict on adolescent sibling relationships. *Journal of Social and Personal Relationships*, *28*(8), 1130-1148. https://doi.org/10.1177/0265407511406894.

Minuchin, S. (1974). *Families and family therapy.* Cambridge, MA: Harvard University Press.

Mota, C. P., & Matos, P. M. (2015). Does sibling relationship matter to self-concept and resilience in adolescents under residential care? *Children and Youth Services Review*, *56*, 97-106. https://doi.org/10.1016/j.childyouth.2015.06.017

Nichols, W. C. (1986) Sibling Subsystem Therapy in Family System Reoganization. *Journal of Divorce, 9*(3), 13-31. https://dx.doi.org/10.1300/J279v09n03_02

Patterson, J.M. (2002). Understanding family resilience. *Journal of Clinical Psychology, 58*(3), 233–246. https://doi.org/10.1002/jclp.10019

Pooley, J. A., & Cohen, L. (2010). Resilience: A definition in context. *Australian Community Psychologist, 22*(1), 30-37.

Raffaelli, M. (1992). Sibling conflict in early adolescence. *Journal of Marriage and Family*, *54*(3), 652–663. https://doi.org/10.2307/353251

Savi Çakar, F. (2018). *Preventive counseling theory and practice.* Ankara: Pegem.

Savi Çakar, F., & Kılınç M. (2019). *Enabling counselors to focus on preventive counseling*. [Conference presentation abstract]. INES-International Academic Research Congress. (p.1518-1521). Line Publications

Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3–9). Oxford University Press

Seligman, M., & Darling, R. B. (2017). *Ordinary families, special children: A systems approach to childhood disability.* NY: Guilford Publications.

Shahmohammadi, N. (2014). Conflict management among secondary school students. *Procedia-Social and Behavioral Sciences*, *159*, 630-635.

Shaw, S. C. (2020). Hopelessness, helplessness and resilience: The importance of safeguarding our trainees' mental wellbeing during the COVID-19 pandemic. *Nurse education in practice, 44*, 102780. https://doi.org/10.1016/j.nepr.2020.102780

Sheehan, G. (2000). *Parental favoritism: Implications for adolescents family relationships* [Unpublished doctoral dissertation, University of Queensland]. Queensland, Australia.

Sherman, A. M., Lansford, J. E., & Volling, B. L. (2006). Sibling relationships and best friendships in young adulthood: Warmth, conflict, and well-being. *Personal Relationships*, *13*(2), 151-165. https://doi.org/10.1111/j.1475-6811.2006.00110.x

Siddiqui, A., & Ross, H. (2004). Mediation as a method of parent intervention in children's disputes. *Journal of Family Psychology, 18*(1), 147. https://doi.org/10.1037/08933200.18.1.147

Stoeber, J., & Rambow, A. (2007). Perfectionism in adolescent school students: Relations with motivation, achievement, and well-being. *Personality and Individual Differences*, *42*(7), 1379-1389. https://doi.org/10.1016/j.paid.2006.10.015

Süloğlu, D., & Güler, Ç. Y. (2021). Predicting perceived stress and resilience: the role of differentiation of self. *Current Issues in Personality Psychology*, *9*(4), 289-298. https://doi.org/10.5114/cipp.2021.106140

Şahinöz, T., Şahinöz, S., & Arslan, Ü. (2022). Traces and effects of biological disasters in the world and in Turkey up to Covid-19. *ODU Journal of Medicine, 9*(1), 1-12.

Ungar, M., Ghazinour, M., & Richter, J. (2013). Annual research review: What is resilience within the social ecology of human development?. *Journal of Child Psychology and Psychiatry*, *54*(4), 348-366. https://doi.org/10.1111/jcpp.12025

Van Breda, A. D. (2001). *Resilience theory: A literature review*. Pretoria, South Africa: South African Military Health Service. www.vanbreda.org/adrian/resilience.htm.

Volling, B. L. (2003). Sibling relationships. In M. H. Bornstein, L. Davidson, C. L. M. Keyes, & K. A. Moore (Eds.), *Crosscurrents in contemporary psychology. Wellbeing: Positive development across the life course* (pp. 205-220). NJ: Erlbaum

Volling, B. L., & Blandon, A. Y. (2003). *Positive indicators of sibling relationship quality: Psychometric analyses of the sibling inventory of behavior (SIB)*. [Conference presentation abstract]. In Child Trend's Positive Outcomes Conference (pp. 12-13).

Waller, M. A. (2001). Resilience in ecosystemic context: Evolution of the concept. *American Journal of Orthopsychiatry*, *71*(3), 290-297. https://doi.org/10.1037/0002-9432.71.3.290

Walsh, F. (2006). *Strengthening family resilience* (2nd edn). NY: Guilford.

Woods-Jaeger, B. A., Cho, B., Sexton, C. C., Slagel, L., & Goggin, K. (2018). Promoting resilience: breaking the ıntergenerational cycle of adverse childhood experiences. *Health Education & Behavior*, *45*(5), 772–780. https://doi.org/10.1177/1090198117752785

Wojciak, A. S., McWey, L. M., & Waid, J. (2018). Sibling relationships of youth in foster care: A predictor of resilience. *Children and Youth Services Review*, *84*, 247-254. https://doi.org/10.1016/j.childyouth.2017.11.030

Yalçın, E. (2019). *Analysing highschool entrance examination in terms of administrators, teachers and students' parents* [Unpublished master's thesis, Akdeniz University]. Institute of Educational Sciences, Antalya.

Yıldırım, İ., Gençtanırım, D., Yalçın, İ., & Baydan, Y. (2008). Academic achievement, perfectionism, and social support as predictors of test anxiety. *Journal of Hacettepe University Faculty of Education*, *34*, 287-96.