



## Aggression and Life Goals in Adolescents: Mediating Effect of Visions About the Future and Moderating Effect of Gender

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### Abstract

Aggression can be considered as a problem for a long time in Türkiye, especially among adolescents in schools. Although few previous studies have confirmed the negative effects of life goals on aggression, the mechanism of how life goals affect aggression and whether this varies with gender difference is still unknown. To address this research gap, we tested the mediating effect of visions of the future and the moderator effect of gender. The study group consisted of 516 high school students in Turkish. The students completed Adolescents' Life Goals Scale with Respect to Positive Psychotherapy, the Visions about Future Scale, and the KAR-YA Aggression Scale. Structural equation modeling (SEM) revealed the indirect impact of life goals on aggression through visions about future. In addition, the conditional process analysis results showed that this indirect effect was moderated by gender.

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## INTRODUCTION

Aggression is a public health problem with economic social, and emotional consequences during adolescence (Vega et al., 2021). Studies have shown that aggression causes physical, emotional, and relationship problems in adolescents and that adolescents commit more crimes following their aggression (Benish-Weisman, 2019; Krettenauer & Eichler, 2006). We think that the determination of the variables associated with aggression is important in developing interventions to reduce and prevent this problem. Although it varies from person to person, there are many sources of aggression during adolescence (Benish-Weisman, 2019). There are views suggesting that aggression in adolescence occurs as a result of the interaction of individual characteristics, such as suicidality (Detullio et al., 2021), low self-esteem, peer rejection, peer pressure, academic failure (Miller, 1994), and environmental characteristics, such as poverty, limited social support, and lack of family control (Coie et al., 1993; Shin, 2017), domestic violence (Perry et al., 2021). It is also stated that adolescents often experience inadequacy in life skills, such as communication, conflict resolution, anger management and, problem-solving (Breunlin et al., 2002; Weir, 2005). It is stated that not having behavioral alternatives for overcoming the deficiencies and difficulties in such life skills also leads to aggression in adolescents (Yavuzer, 2013).

When the studies conducted to date are examined, no research has been found that examines the future visions and the direct and indirect effects of gender on the relationship between life goals and aggression. Therefore, in this study we aimed to address this knowledge gap, provide an integrated perspective and adopting a positive psychology approach on the relationship between life goals and aggression. Specifically, in this study we examined the association between life goals and aggression among Turkish adolescents. The change and transformation of the social structure in Türkiye has led to the increase of various social problems. This is social one of the problems is the increase in aggressive behavior. The increase in aggressive acts in school environments is a detailed explanation of the issue requires that it be addressed (Üçüncü & Özada-Nazım, 2022). This situation is one of the important motivation factors in the conduct of the research. We also investigated the mediating effect of visions about the future and moderating effect of gender, which may help us better understand the relationship between aggression and life goals.

### THE RELATIONSHIPS BETWEEN AGGRESSION AND LIFE GOALS

Adolescence is an important and critical period since it is a period in which individuals' ability to make rational and healthy plans for the future develops (Reininger et al., 2003). With the development of this competence, adolescents begin to establish life goals (Sheldon & Lyubomirsky, 2006). Life goals are defined as situations that individuals wish to achieve with the help of their cognitive and behavioral strategies (Emmons, 1999). Life goals associated with situations and lifestyles that are attributed short or long-term meaning have an important place in the self-definition of the individual (Wrosch et al., 2003). At the same time, life goals are resources that help individuals to connect to life (Korkmaz & Cenkseven-Önder, 2019). Life goals are expressed under three different structures: relationship goals, career (achievement) goals, and entertainment goals (body-sense) (Eryılmaz, 2010). Career goals include determining the kind of education a person will receive in his life, jobs he/she will work in, and how he/she will progress and develop in his/her job. Relationship goals guide the person to determining the characteristics of the person to marry, having an idea about the number of children they want to have in the future, and planning the activities to be performed with the child. Entertainment goals, on the other hand, involve sportive activities to be performed throughout life, leisure activities such as going to the cinema and theater, and hobbies to evaluate free time (Eryılmaz, 2010).

Determining life goals in adolescents is considered one of the prerequisites for healthy development (McGregor & Little, 1998). The presence of life goals provides adolescents with the advantages, such as self-management, determining new strategies to achieve goals, using time,

energy, and resources correctly, and keeping motivation alive (Massey et al., 2008; Snyder, 2002). According to Zhang and Zhang (2017), individuals with life goals have a low tendency towards engaging in harmful and aggressive behaviors because the existence of life goals leads individuals to seek healthy solutions for problems (Peseschkian, 1996). On the contrary, not choosing healthy solutions for problems can lead individuals to destructive ways, such as anger, rage, and violence (e.g. Arslan & Demirci, 2019; Johnson, 2009; Yavuzer et al., 2013). In the context of what was stated, we considered that the increase in life goals might be related to the decrease in aggression.

#### **MEDIATING EFFECT OF VISIONS ABOUT THE FUTURE**

Visions about the future that include hope, optimism, and low levels of pessimism are effective in adolescents' educational, professional, and career development (Ginevra et al., 2017; Savickas, 2013). In addition, visions about the future are considered as an important factor for adolescents in terms of affecting their health, well-being, and positive behaviors (Sun & Shek, 2012). Optimism, which is one of the important components of visions about the future, is defined as individuals' strong expectations that the future will be good despite having difficulties in life (Goleman, 2000). It is stated that individuals with high levels of optimism show resilience in the face of many challenging life tasks (Brissette et al., 2002). Optimistic individuals tend to make more effort, be insistent, and endure difficulties and face them to reach their future aspirations (Ginevra et al., 2017). On the other hand, pessimism is defined as individuals' expectation that they will experience something bad (Carver et al., 2010). Hope is expressed as an individual's motivation to achieve the goals set for the future (Snyder, 2002). In other words, hope is an emotion that enables people to be successful in difficult situations or situations that are important to them (Santilli et al., 2017).

Visions about the future may also be associated with adolescent aggression. Because optimism, which is one of the important components of visions about the future, is defined as a strong cognitive filter that affects adaptive behaviors and thoughts shown in the face of events (Forgeard & Seligman, 2012). The adaptive effect and cognitive filter of optimism can help the individual to control the factors that lead to aggression. As a matter of fact, studies have found that optimism has significant negative effects on aggression (Coneo et al., 2017). Pessimism is positively associated with aggression (Hasan, 2002). Studies revealing that pessimistic adolescents experience higher levels of stress (Orejudo et al., 2012) and anger (Puskar et al., 1999), which are important predictors of aggression, support this claim. Hope, which is another important component of visions about the future, is a source for positive emotions, functional and constructive thoughts, and behaviors that are negatively related to aggression (Ahmadi et al., 2017; Halevy, 2017). Based on what was stated, we thought that the increase in visions about the future was associated with the decrease in aggression.

Individuals' determination of life goals and finding ways to achieve these goals are considered to be important factors for hope, which is the main component of the visions about the future because the goal is stated to be the cognitive part of hope (Korkmaz & Cenkseven-Önder, 2019; Snyder, 2002). On the other hand, lack of goals causes individuals to experience despair (Snyder, 2002). Setting goals is also associated optimism and low levels of pessimism. Evidence suggested that having an optimistic view of the future and not being pessimistic may be directly related to having and pursuing that goal (Carver et al., 2010). In addition, setting goals and spending efforts to reach these goals are expressed as a motivation factor. This motivation, which individuals use to achieve their determined goals, increases their optimism towards the future and decreases their pessimism (Carver et al., 2003). In the context of the theoretical framework and studies reported, we thought that the increase in life goals would be related to the increase in visions about the future. As a result, we thought that visions about the future could play a mediating role in the relationship between life goals and aggression.

#### **MODERATING EFFECT OF GENDER**

It has been reported in previous studies that the aggression levels of men and women are different (e.g. Cillessen & Borch, 2006; Cui & Lan, 2020; Yavuzer & Karataş, 2013). Studies have shown

that male adolescents have higher aggression levels than female adolescents. On the other hand, gender may be the reason for differences in adolescents in terms of acquiring life goals. Türkiye generally has an eastern culture and a patriarchal structure (Tagay et al., 2016). Depending on this situation, the values transferred to individuals differ in terms of gender. Studies on values have shown that in such societies, males attach more importance to values, such as achievement, hedonism, and power and that females attach importance to values, such as universality and benevolence (Demirutku & Sümer, 2010; Schwartz & Rubel, 2005). Values, on the other hand, are the principles that guide individuals to set goals (Theodorson & Theodorson, 2000). Accordingly, male adolescents in Türkiye may display a more aggressive attitude than female adolescents based on the life goals and visions about the future they have developed to be strong. In this context, we think that gender moderates the relationships between not only life goals and aggression but also life goals and about the future visions in adolescents.

**THE PRESENT STUDY**

Adolescents’ aggression has become an increasing phenomenon in Türkiye, especially in recent years (Özdoğan et al., 2021; Üçüncü & Özada-Nazım, 2022; Yönet et al., 2016). Examining the variables that can be associated with aggression will undoubtedly support the processes of description and prevention processes of the problem. In this study, a model was constructed that hypothesized that life goals would indirectly predict aggression through visions of the future, while gender would moderate this indirect effect. Specifically, gender will moderate the relationships between not only life goals and visions about the future but also life goals and aggression.

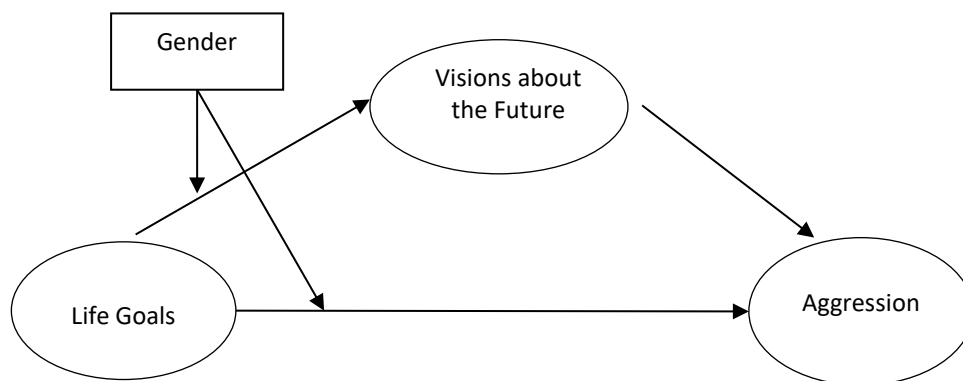
The hypotheses of the present study are as follows (see Figure 1):

*H1:* Life goals will significantly and negatively predict aggression.

*H2:* Life goals predicts aggression through the indirect effect of visions about the future in adolescents.

*H3:* Gender moderates the relationships between not only life goals and visions about the future but also life goals and aggression in adolescents.

**Figure 1.** *The hypothesized structural mode*



**METHOD**

This study involved a correlational research that examines the relationships between variables (Fraenkel et al., 2012). The predicted variable is aggression and the predictor variable is life goals in the research. In the relationship between the predictor variable and the predicted variable, vision about the future is the mediator variable, and gender is the moderator variable. The moderator effect of gender between life goals and vision about the future was also examined

## **PARTICIPANTS**

We formed the study group of the research using convenience sampling method so that researchers do not experience health problems due to the barriers created by the COVID-19 pandemic. Participants consisted of 516 students, including 273 (52,9%) females and 243 (47,1%) males from four different Anatolian High Schools in a city in the Eastern Mediterranean Region. The age range of the students varied between 13 and 19, and the mean age was 15,43 ( $Sd = 1,30$ ).

## **DATA COLLECTION TOOLS**

### **AGGRESSION**

Karataş and Yavuzer (2016) developed the KAR-YA Aggression Scale to measure aggression in high school and university students. The 23-item scale consists of four sub-dimensions: verbal aggression, physical aggression, anger, and hostility [(e.g. "I can kick people that I am angry with" (physical aggression), "The only way to live in this world is to be merciless" (hostility), "I can easily get furious" (anger), and "I try to impose my ideas on others" (verbal aggression)]. The items are evaluated using a five-point Likert-type scale with options ranging between "never" (1) and "always" (5). Higher scores on the scale indicate increased aggression. The four sub-dimensions of the scale explain 51.71% of the total variance (Karataş & Yavuzer, 2016). In the present study, the internal consistency coefficient (Cronbach's alpha) of the scale was 0,93.

### **LIFE GOALS**

The adolescents' life goals scale with respect to positive psychotherapy was developed by Eryılmaz (2010) to measure whether adolescents set life goals. High scores indicate that individuals have goals in terms of career, relationship, and entertainment. The scale consists of nine items [(e.g. "I have planned the jobs I will work in throughout my life" (career goals), "I have planned the activities I will do with my child throughout my life" (relationship goals), "I have determined the sports activities that I want to do throughout my life" (entertainment goals)]. It has a four-point Likert-type structure with options ranging between "strongly disagree" (1) and "strongly agree" (4). The explained variance of the three-dimensional scale including relationship goals, career goals, and entertainment goals is 65.32%. In the present study, the internal consistency coefficient (Cronbach's alpha) of the scale was 0,77.

### **THE VISIONS ABOUT FUTURE**

Ginevra et al. (2017) developed The Visions about Future Scale to identify individuals' visions of the future (hope, optimism, and pessimism). Akça et al. (2018) conducted the Turkish adaptation study of the scale. The scale consists of 18 items [e.g. "I think I am an optimist" (optimism), "I will not really get what I want" (pessimism), "I feel that I will be quite in a good position in the future" (hope)]. It has a five-point Likert-type scale with options ranging between "not describing me at all" (1) and "describing me very well" (5). All items belonging to the pessimism sub-dimension are scored in reverse. High overall scores on the scale indicate that the adolescent has a positive view of the future, while high scores on a sub-dimension indicate an increase in the related feature in the individual (Akça et al., 2018). In the present study, the internal consistency coefficient (Cronbach's alpha) of the scale was 0,84.

## **PROCEDURE AND ETHICS**

The data of this study were collected from volunteer high school students. The researcher went to four Anatolian High Schools in the vicinity due to the restrictions and risks posed by the COVID-19 pandemic and informed the administrators of the institutions about the research. Upon the approval of the administrators of the institutions, the link to the electronic form of the data collection tools (designed on Google Forms) was shared by the administrators in the WhatsApp groups of the classes. In addition, we have informed consent from participants over the age of 18 and from their parents for

participants under the age of 18. While receiving the answers, no personal information was requested from any participant. This study was approved and registered by the Ethics Committee of Çukurova University (E-74009925-064.01.02-61373).

**DATA ANALYSIS**

Before our analysis, we tested the conformity of the data to the normal distribution by examining the kurtosis and skewness values. The kurtosis values were between 0,52 and 0,94, and the skewness values were between -0,87 and 0,96. First, correlations among variables and descriptive statistics, were computed in SPSS 25 for Windows. Second, as a primary analysis, confirmatory factor analysis (CFA) conducted in AMOS 24 was employed to test whether the single-factor structure of the measurement tools was supported by the collected data. Third, a structural equation model (SEM) conducted in AMOS 24 was employed to examine the mediation effect of visions about the future. The assessment standards for the goodness of fit index of the model were taken as  $\chi^2 / df < 5$ ,  $TLI > 0,85$ ,  $CFI > 0,90$ ,  $AGFI > 0,85$ ,  $GFI > 0,85$ , and  $RMSEA < 0,10$  (Marcoulides & Schumacher, 2001; Tabachnick & Fidell, 2007). In the bootstrap analysis, a 10,000 resampling and a 95% confidence interval were used to determine mediation effects. Finally, we used SPSS PROCESS macro to test the conditional process model proposed by Hayes (2018). In the bootstrap analysis, a 5000 resampling and a 95% confidence interval were used to determine moderated indirect effect (Preacher & Hayes, 2008).

**RESULTS**

**PRELIMINARY ANALYSES**

As the primary analysis, CFA was used to test whether the single-factor structure of the measurement tools used was supported by the collected data. It was found that the single-factor model of the life goals scale [ $\chi^2 (24, N = 516) = 50,223; p < 0,001; \chi^2/sd = 2,09; RMSEA = 0,046; AGFI = 0,96; CFI = 0,98; GFI = 0,98; TLI = 0,97; SRMR = 0,03$ ], the single-factor model of the visions about the future scale [ $\chi^2 (130, N = 516) = 462,534; p < 0,001; \chi^2/sd = 3,55; RMSEA = 0,070; AGFI = 0,88; CFI = 0,93; GFI = 0,91; TLI = 0,92; SRMR = 0,07$ ], and the single-factor model of the aggression scale [ $\chi^2 (216, N = 516) = 769,347; p < 0,001; \chi^2/sd = 3,56; RMSEA = 0,071; CFI = 0,91; GFI = 0,88; AGFI = 0,85; TLI = 0,89; SRMR = 0,06$ ] were acceptable models that fit the collected data.

**THE MEDIATING EFFECT OF VISIONS ABOUT THE FUTURE ON THE RELATIONSHIP BETWEEN LIFE GOALS AND AGGRESSION**

The results showed that aggression was found to be significantly and negatively correlated with life goals ( $r = -0,37, p < 0,01$ ) and visions about the future ( $r = -0,53, p < 0,01$ ). On the other hand, a significant positive relationship was observed between visions about the future and life goals ( $r = 0,55, p < 0,01$ ). Gender was found to be significantly and negatively correlated with visions about the future and aggression (Table 1).

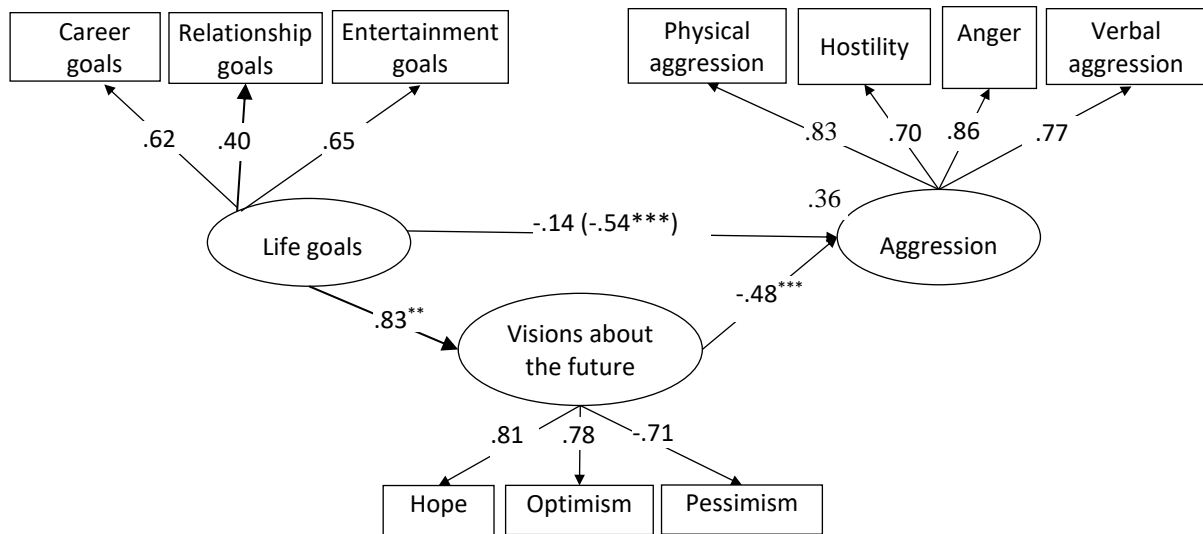
**Table 1.** *The Descriptive Statistics and Correlations*

	<i>M</i>	<i>SD</i>	1	2	3	4
1. Gender	0,47	0,49	1			
2. Life goals	22,69	4,58	-0,03	1		
3. Visions about the future	67,22	14,34	-0,09*	0,55**	1	
4. Aggression	50,01	16,89	-0,12**	-0,37**	-0,53**	1

\*  $p < 0,05$ , \*\*  $p < 0,01$

First, the path coefficient between life goals and aggression was tested with a model in which visions about the future did not have a mediating role. The goodness of fit values of this model were examined, and it was found that they were acceptable [ $\chi^2 (13, N = 516) = 48,156; p < 0,001; \chi^2/sd = 3,70; RMSEA = 0,072 (LO = 0,05, HI = 0,09); CFI = 0,97; GFI = 0,97; AGFI = 0,94; TLI = 0,95$ ].

**Figure 2.** The Hypothesized Structural Model



Note. The coefficient expressed in parentheses is the coefficient between life goals and aggression before visions about the future was included in the model.  
 \*\*\* $p < 0,001$

The path coefficient between life goals and aggression was found to be statistically significant ( $\beta = -0,54, p < 0,001$ ). Then, the goodness of fit values of the model, in which visions about the future played a mediating role in the relationship between life goals and aggression, were examined, and these values were found to be significant [ $\chi^2 (32, N = 516) = 128,981; p < 0,001; \chi^2/sd = 4,03; RMSEA = 0,077 (LO = 0,06, HI = 0,09); CFI = 0,95; GFI = 0,96; AGFI = 0,92; TLI = 0,94$ ]. The path coefficients of life goals and visions about the future ( $\beta = 0,83, p < 0,001$ ) and the path coefficients of visions about the future and aggression ( $\beta = -0,48, p < 0,001$ ) were found to be statistically significant. However, with the inclusion of visions about the future in the model, the path coefficient between life goals and aggression was found to be not statistically significant ( $\beta = -0,14, p = 0,31$ ). Life goals and visions about the future explained 36% of the variance in aggression (Figure 2).

**Table 2.** The Mediating Effect of Visions About the Future on the Relationship between Life Goals and Aggression

Pathways	$\beta$	SE	95% CI
<i>Direct effect</i>			
Life goals → Visions about the future	0,83**	0,05	0,74, 0,92
Life goals → Aggression	-0,14	0,18	-0,47, 0,23
Visions about the future → Aggression	-0,48*	0,17	-0,83, -0,15
<i>Indirect effect</i>			
Life goals → Visions about the future → Aggression	-0,40*	0,15	-0,73, -0,12
<i>Total effect</i>			
Life goals → Aggression	-0,54*	0,06	-0,65, -0,40

Note. CI: Confidence interval. Standardized beta coefficients ( $\beta$ ) were reported.  
 \* $p < 0,001, **p < 0,01$

The bootstrap method was employed to test the indirect effect of visions about the future. As shown in Table 2, the lower and upper values of the confidence interval in all path coefficients (except for life goals and aggression) do not include zero. That is, the indirect effect of life goals on aggression through the mediation of visions about the future was found to be significant [ $\beta = -0,40, CI (-0,73, -0,12)$ ]. However, it was observed that the path coefficient between life goals and aggression was not significant. Therefore, visions about the future had a full mediation role in the relationship between life goals and aggression.

**MODERATING EFFECT OF GENDER**

The results showed that life goals significantly predicted visions about the future ( $\beta = 0,91, p = 0,03$ ). The interaction of life goals and gender yielded a significant result in predicting visions about the future ( $\beta = 0,53, p = 0,03$ ). This result showed that the effects were significant for both female and male.

**Table 3.** Moderating Effect of Gender on the Relationship between Visions about the Future and Life Goals

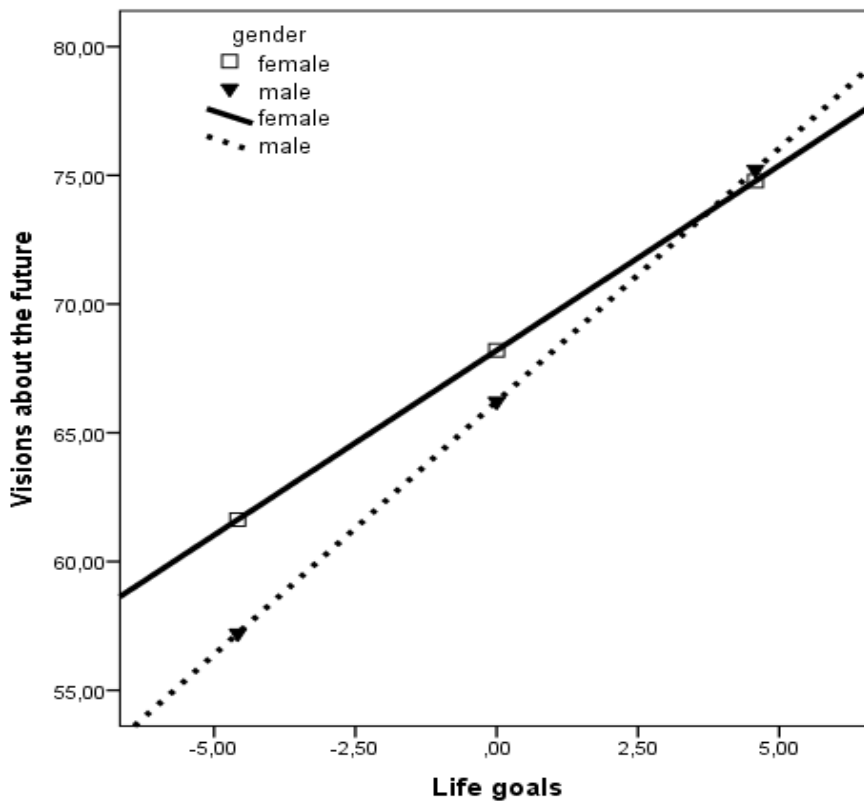
Predictors	Model 1 (Visions about the future)			Model 2 (Aggression)		
	$\beta$	<i>t</i>	95%CI	$\beta$	<i>t</i>	95%CI
Gender	-1,98	-1,88	-4,05, 0,08	2,49	1,91	-0,07, 5,06
Life goals	0,91	2,07**	0,05, 1,76	-0,48	0,92	-1,49, 0,54
Life goals X gender	0,53	2,08**	0,03, 1,03	0,03	0,09	-0,64, 0,69
Visions about the future				-0,54	-7,99*	-0,68, -0,41
$R^2$		0,31			0,30	
<i>F</i>		73,92*			31,05*	

95%CI = bootstrapped confidence intervals.

\* $p < 0,01$ , \*\* $p < 0,05$

Therefore, the effect of life goals on visions about the future was moderated by gender (see Table 3, Model 1, Figure 3). As the Figure 3 shows, compared to females, males reported higher levels of visions about the future given high life goals level. On the other hand, compared to males, female reported higher levels of visions about the future given low life goals level. In addition, when the life goals level of female and male increase, their visions about the future increase, as well. However, the interaction of life goals and gender did not predict aggression ( $\beta = 0,03, p = 0,93$ ). That is, gender did not moderate the relationship between life goals and aggression (see Table 3, Model 2).

**Figure 3.** Moderating Effect of Gender on the Relationship between Visions about the Future and Life Goals





## DISCUSSION

In this study, the relationships between aggression, life goals, and visions about the future (hope, optimism, low pessimism) in adolescents were examined. According to the results of the study, it was found that life goals and visions about the future had a significant effect on aggression. In addition, it was concluded that visions about the future had a full mediation role in the relationship between life goals and aggression. On the other hand, another result of the study was that gender have a moderating role in the relationship between life goals and visions about the future.

First hypothesis of our study was that life goals would negatively and significantly predict aggression. Our study results showed that life goals negatively and significantly predicted aggression. Life goals, which include plans for future, begin to emerge in adolescence (Sheldon & Lyubomirsky, 2006). This becomes a source for adolescents, who begin to form life goals, to act in a more planned way. Existence of life goals motivates adolescents to solve problems and cope with difficulties (Ülküer, 1988). On the other hand, individuals who do not have goals can live more moment-oriented, make inappropriate decisions and, as a result, take destructive and damaging actions due to the lack of future plans (Peseschkian, 1996). Therefore, when adolescents with life goals encounter difficulties and distress, instead of a non-constructive aggressive attitude, they can activate their coping and problem solving-skills.

Second hypothesis of our study was that life goals predicts aggression through the indirect effect of visions about the future in adolescents. It was concluded that visions about the future played a full mediation role in the relationship between life goals and aggression, which confirmed our hypothesis. The results demonstrated that life goals increased visions about the future (especially hope and optimism) and that increased visions about the future reduced aggression. The existence of life goals enables individuals to focus on the future (Emmons, 2003). Future-oriented individuals develop goals and plans that contribute positively to their visions about the future to structure their future (Savickas, 2013). On the other hand, individuals' optimistic, hopeful, and non-pessimistic orientation towards the future are the mechanisms that assist them in exhibiting constructive attitudes instead of aggressive attitudes (Ahmadi et al., 2017; Carver, 2014; Coneo et al., 2017; Hasan, 2002).

Third hypothesis of our study was that gender moderates the relationships between not only life goals and visions about the future but also life goals and aggression in adolescents. In present study we found that the interaction between life goals and gender had a significant effect on visions about the future (optimism, pessimism, and hope). In other words, there is a moderating effect of gender on the indirect effect of life goals on aggression. As a result, compared to females, males reported higher levels of visions about the future given high life goals level. Moreover, compared to males, female reported higher levels of visions about the future given low life goals level. In addition, when the life goals level of female and male increase, their visions about the future increase, as well. This finding is consistent with the results of previous studies (e.g. Ginevra et al., 2017). Ginevra et al. (2017) examined gender differences, and observed with male reporting higher levels of optimism and pessimism than female. However, there was no gender difference for the concept of hope.

However, this study did not confirm that gender moderates the direct relationship between life goals and aggression. One of the justifications for creating this hypothesis was that aggression in adolescents differed in terms of gender in studies conducted both in Türkiye and abroad. It has been reported in previous studies that the aggression levels of men and women are different (e.g. Cillessen & Borch, 2006; Cui & Lan, 2020; Karataş et al., 2019; Yavuzer & Karataş, 2013). In these studies, the difference was found in favor of men. Another justification was related to the fact that life goals might differ in terms of gender due to the value transfers specific to Turkish culture. Because values are the basic principles in setting life goals (Theodorson & Theodorson, 2000). However, our results demonstrated that the relationship between life goals and aggression was not different for male and female adolescents. This may be also related to the fact that parents do not make any gender

discrimination when transferring values, which have important effects on the acquisition of life goals, to their children (Sheldon & Kasser, 1998).

#### LIMITATIONS AND RECOMMENDATIONS

The results obtained in this study should be evaluated carefully within the framework of limitations. First of all, a cross-sectional and correlational design was used in this study. Longitudinal studies and experimental design studies are needed to reveal the relationships between the related variables more clearly. While the regulatory effect of gender was being tested, it was assumed that the general value perceptions of Turkish society were effective in setting life goals. In the study, the values of the participants were not measured, which was another limitation. In addition, the results of the study are based on the subjective opinions of the participants. While making generalizations about the results, individuals of similar developmental stages should be considered. Socioeconomic level (SEL) may be an important variable for the variables in this study. Not examining the SEL variable is another limitation of this study.

Based on these findings, applications to set life goals and increase visions about the future can be implemented in individual and group studies to reduce aggression in adolescents. Especially, psychological counselors working in schools should conduct programs that will help adolescents to determine life goals and achieve future orientation so that their tendency for aggression can be reduced or violence in schools can be prevented. Outside of school, the aggressive tendencies of individuals can be reduced by providing information to parents that can help their children establish life goals. Media tools can provide content that encourages future visions and life goals, rather than aggressive content. Thus, the aggression of individuals can be avoided. In this situation, legislators and persons with relevant responsibilities should be supervisory and regulatory.

#### AUTHOR CONTRIBUTIONS

First author conceptualized the project and contributed to the analysis and interpretation of the findings. Second author collected the data, analyzed the data and wrote the manuscript. All authors reviewed and approved the final version of the manuscript.

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