

Received: 26 May 2020

Revision received: 29 June 2020

Accepted: 8 July 2020

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DOI 10.12738/jestp.2020.3.005 ♦ July 2020 ♦ 20(3) ♦ 56-66

Article

## The Mediator Role of Thriving in the Relationship between Self-Efficacy and Mindfulness in Middle-Adolescence Sample

Neslihan Arıcı Özcan

*İstanbul Medeniyet University, Turkey*

Özge Vural

*İstanbul Medipol University, Turkey*

### Abstract

In middle adolescence, young people being aware of self have more self-efficient in developmental issues due to their self-regulation. In this sense, thriving based on the self-regulation approach is thought to be a mediator for adolescents to experience self-efficacy and mindfulness. Thus, this study was aimed to investigate thriving as a mediator on the relationship between mindfulness and self-efficacy among high school students. A total of 309 high school students (245 females, 64 males), with the average age 16.97 ( $SD = 0.69$ ), attending Uskudar Municipality Youth Academy in Istanbul between 2018-2019 for assistance towards their university exams participated in this study. The 44.1% of participants ( $n = 136$ ) were in Grade 11, and 55.9% ( $n = 173$ ) were in Grade 12. *Mindfulness Attention Awareness Scale*, *Thriving at School Scale*, and *General Self Efficacy Scale* were applied on participants to collect data. Pearson correlation coefficients were calculated to detect the relationship between variables, and the mediating role of thriving on the relationship between mindfulness and self-efficacy was tested using a simple mediation model. Results showed that variables were significantly correlated to each other, and thriving increases with increased mindfulness, while self-efficacy increases with increased thriving. The mediation model in its entirety proved statistically significant, accounting for 23% of the total variance. The findings have been discussed in line with relevant literature on the issue and recommendations on their possible application have been given.

### Keywords

Adolescence • mediator role • mindfulness • self-efficacy • thriving

**Correspondence to** Neslihan Arıcı Özcan, Assistant Associate Professor, Department of Social Work, İstanbul Medeniyet University. Ünalıan Mah, Ünalıan Cd, E5 Karayolu Üstü, 34700 Üsküdar/İstanbul, Turkey. E-mail: neslihan.ozcan@medeniyet.edu.tr

**Citation:** Arıcı Özcan, N., & Vural, Ö. (2020). The mediator role of thriving in the relationship between self-efficacy and mindfulness in middle-adolescence sample. *Educational Sciences: Theory and Practice*, 20(3), 56 - 66. <http://dx.doi.org/10.12738/jestp.2020.3.005>

In terms of stages in life, the adolescent years are marked by a confusing and tumultuous transition, the pace of which puts excessive pressure on one's ability to cope (Byrne et al., 2007). As a critical period, adolescence involves profound changes in one's physical, physiological, cognitive, emotional, behavioral, social, and relational organizations (Lerner et al., 2011). The successful completion of basic developmental tasks, such as developing healthy relationships among family, friends, and neighborhood without experiencing serious psychological and behavioral problems like alcohol, substance abuse, smoking, school drop-out, and depression and attempting to suicide are crucial in this period (Arnett, 2000, 2007; Arnett et al., 2001; Cook et al., 2002; Lene, 2003). Especially in middle adolescence period, it is so vital for young people to identity formation and to decide about their academic life (Gestsdottir et al., 2010; Lerner et al., 2011). Therefore, studies on adolescence mostly emphasize what adolescents ought to be helped with by defining the risks and difficulties faced by young people in general (Benson et al., 2006). Beside deficiency or pathology perspective, human development should be understood a strength-centered perspective as well (Bundick et al., 2010). Therefore, in this study strength-related concepts such as self-efficacy, thriving and mindfulness are examined in the middle-adolescence sample.

Self-efficacy is the main factor in terms of dealing with difficulties because one's belief in ability to succeed in an action is a determinant of how to think, feel, and behave (Bandura & Adams, 1977). Shortly, the term self-efficacy can be described as one's self-belief to have ability to succeed in an action. People with high self-efficacy believe that they can even overcome difficult tasks and see these challenges as an opportunity to specialize, rather than a danger to be avoided (Bandura, 1991). According to Bandura (1991), one's belief in self-efficacy is a source of self-development, successful adaptation, and change. Furthermore, self-efficacy is explained through self-regulation - a conscious self-management system - and involves a process of directing thoughts, behaviors, and emotions in order to achieve one's goals (Bandura, 1991). Adolescents' upbringing and self-efficacy play a key role in determining their path in life (Bandura, 1991; Urdan, 2006). Self-efficacy develops over time in accordance with one's experience of childhood. A person's abilities and sense of self-belief, meanwhile, develop through direct experiences, observations of others, or listening to others' experiences (Lee, 2005). Observing a direct experience is the part of mindfulness. In this sense, mindfulness is thought to be related with self-efficacy in middle adolescence.

### **The Relationship between Self-Efficacy and Mindfulness**

Mindfulness is a mental state which relies on appreciating internal experiences in the present moment, paying attention to what is happening currently, recognizing the quality of this attention, and accepting the discerned without judging (Kabat-Zin, 2009). In another word, mindfulness is the feeling of experiencing "the current moment" fully, living with controlled attention (Shapiro et al., 2010), and requires the observation of bodily sensations (Davidson et al., 2003). Modern psychology defines mindfulness as a psychological phenomenon that increase awareness by responding to mental processes that may deal with maladaptive behavioral processes and emotional distress (Bishop et al., 2004).

Directing attention to subjective, physical, emotional, and mental experiences provides the basis for a healthy measure self-regulation (Deci & Ryan, 2000). Self-efficacy is equally a basis for self-regulation (Bandura, 1991). It has also been stated that the ability to nurture awareness of one's own self and environment in order to regulate the thoughts and emotions carries a link to self-efficacy (Greason & Cashwell, 2009; Hanh, 1993; Levine, 2000). Thus, it can be said that adolescent students in middle adolescence period are better able to thrive when they are able to maintain awareness of their thoughts and emotions, regulating them in the name of self-efficacy (Lerner et al., 2003; Lerner et al., 2005; Lerner et al., 2011).

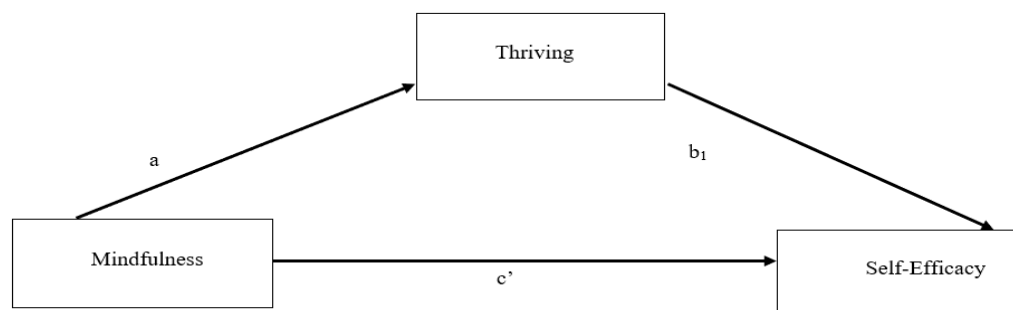
### The Mediator Role of Thriving

Thriving is a psychological state by which a person can acquire both learning and vitality. Vitality means “an individual’s having the energy to do a certain action” (Nix et al., 1999, p. 267) and has a zest for what they do (Stiver & Miller, 1997). Learning, on the other hand, means acquiring the knowledge and skills to do something in a confident way (Carver, 1998; Spreitzer et al., 2005). These dimensions provide affective and cognitive personal growth (Porath et al., 2012). From a developmental perspective, the concept of thriving is better understood with a strength centered approach (Bundick et al., 2010).

Thriving is a developmental process in the context of the development of an individual and is shaped through the interactions that one experiences now and before (Tomasik et al., 2018). In other words, thriving is a situation that products from interactions between antecedents and outcomes. Moreover, these interactions have been explained by self-regulation (Brandtstädter, 2006; Lerner, 2002, 2006; Spreitzer et al., 2012). In terms of self-regulation, it is within the individual’s ability to navigate and regulate autonomously their own internal sources and behaviors consistent with their basic psychological needs and contextual features (Deci & Ryan, 2000, 2008; Spreitzer et al., 2005; Wallace et al., 2016). To navigate and regulate autonomously of one’s own internal sources and behaviors based on one’s basic psychological needs and contextual features, it helps individuals to become aware of the way they act and to evaluate their process. In such a context, thriving may be comprehended with regards to its relationship to mindfulness. In line with this, many studies indicated the relationship between thriving and mindfulness (Brown et al., 2007; Glomb et al., 2011).

Thriving is a subjective experience that provide individuals to monitor what they are doing, how they are doing it, and helping them to grow in a positive way (Spreitzer et al., 2005). During the thriving process, individuals do not only survive (Saakvitne et al., 1998), but more importantly, grow and develop in an upward trend (Calhoun & Tedeschi, 1998; Joseph & Linley, 2008; Hall et al., 2009; Thomas & Hall, 2008). In this context, self-efficacy is the outcome of thriving. Thriving has been related to self-efficacy (Betz & Voyten, 1997; Deane et al., 2017; Hirschi, 2009; Jelicic et al., 2007; Scales et al., 2011). Thriving may enhance young people ability to increase their academic performance and skills.

So far, very few studies have analyzed these three concepts together. This study presents a model showing that self-efficacy ought to be nourished among adolescents in line with mindfulness and thriving. The findings obtained from this study are hoped to increase expert awareness of these two concepts and to consider their application in interventions related to self-efficacy (preventive, developing, intervening). In this context, the aim of the study is to examine the mediator role of thriving in the relationship between mindfulness and self-efficacy in the middle adolescence sample. The simple mediation model constructed in this study is shown in Figure 1.



**Figure 1.** Simple mediation model

In accordance with the above-mentioned purpose, the hypotheses are as follows: (H1) There is a significant relationship between mindfulness and self-efficacy in the middle adolescence sample. (H2) There is a significant relationship between mindfulness and thriving in the middle adolescence sample. (H3) There is a significant relationship between thriving and self-efficacy in the middle adolescence sample. (H4) There is a mediator role of thriving in the relationship between mindfulness and self-efficacy in the middle adolescence sample.

## Methods

### Participants

A total of 309 high school students aged between 16 - 19 ( $M = 16.97$ ,  $SD = 0.69$ ) in various high schools in İstanbul participated to the study. These students (79.3% females, 20.7% males) attended to Uskudar Municipality Youth Academy in Istanbul between 2018-2019 in order to benefit from assistance towards their university exams. Thus, 44.1% of participants ( $n = 136$ ) were in Grade 11, and 55.9% ( $n = 173$ ) were in Grade 12.

### Instruments

In order to collect data, the following scales were used: *Mindful Attention Awareness Scale-Adolescent*, the *Thriving Scale*, and *General Self-Efficacy Scale*.

*Mindful Attention Awareness Scale-Adolescent* (MAAS-A) developed by Brown et al. (2011) and adapted into Turkish by Aydın-Sünbül & Yerin Güneri (2019), assess mindfulness experience in adolescents with 14 - 18 year of age. The instrument includes 14 items (e.g., “I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there”) responded on a 6-point Likert scale (1 = *almost always* to 6 = *almost never*). The Cronbach’s alpha coefficient in this study was .80. Original form of the scale was single factor. The confirmatory factor analysis showed a good fit of the current data to the original single factor ( $\chi^2 = 162.5$ ,  $df = 75$ ,  $\chi^2/df = 2.17$ , GFI = .94, CFI = .92, TLI = .90, RMSEA = .06).

*Thriving Scale* (TS) was developed by Porath et al. (2012). In this study, the Turkish version of the scale, translated and adapted by Arıcı Özcan et al. (2020), was used to measure the level of thriving. The instrument includes 10 items with a 6-point Likert response scale (1 = *strongly disagree* to 6 = *strongly agree*), distributed in two factors: *Vitality* (e.g., “I feel full of positive energy”) and *Learning* (e.g., “I find myself learning often”). The Cronbach’s alfa coefficient in the current study was .65. The confirmatory factor analysis showed a good fit of the current data to the original two dimensions ( $\chi^2 = 214.93$ ,  $df = 133$ ,  $\chi^2/df = 1.616$ , CFI = .98, IFI = .98, RMSEA = .077, SRMR = .046).

*General Self-Efficacy Scale* was developed by Schwarzer and Jerusalem (1975) and adapted into Turkish by Aypay (2010). The instrument includes 10 items, responded on a 4-point Likert scale ranging from 1 (*not only true*) to 4 (*exactly true*), and distributed in two factors: *Effort and Resistance* (e.g., “If someone opposes me, I can find the means and ways to get what I want”) and *Ability and Confidence* (e.g., “I can solve most problems if I invest the necessary effort”). The Cronbach’s alpha coefficient in the present study was .83.

### Procedure

Firstly, the ethical permission had taken from İstanbul Medipol University Ethical Committee. Then research data was collected from high school students attending Istanbul Uskudar Municipality Youth Academy at 2019-2020 fall term in order to benefit from assistance towards their university exams. Thus,

convenience sampling method was used. Students were informed about the study and voluntarily participation to this study. Voluntary students confirmed a written informed consent form that the study purpose and assurance of confidentiality has been written. Next step was to fill out paper-pen format scales in the class. This procedure lasted approximately 15 minutes. This study was a cross-sectional design and the correlation and simple mediator model were used.

### Data Analysis

After data were collected, potential errors were checked, missing value analysis and outlier analysis were performed. Missing values have been determined by eliminating participant data which were 10% incomplete in each scale and mean score of these data was determined by using series mean method. Z scores were calculated for each continuous variable in order to determine the outliers. Besides, participants surpassing  $\pm 3.29$  were not included from the sample. After the data were ready to be analyzed, the correlation analysis was calculated to detect the relationship between variables by using SPSS 20 package program. After all, the PROCESS macro for SPSS program was applied for the simple mediation analysis to test the mediation effect. In the analysis, the 10000 bootstrap sampling has been utilized, with estimations evaluated with a 95% confidence interval that was free of bias and accurate results were provided (Hayes, 2013).

## Results

### The Relationship among Mindfulness, Thriving and Self-Efficacy

It was found that data variables were significantly correlated to each other. There were positive correlations between *Mindfulness* and *Self-efficacy* ( $r = .34, p < .01$ ), between *Thriving* and *Mindfulness* ( $r = .21, p < .01$ ), and between *Thriving* and *Self-efficacy* ( $r = .40, p < .01$ ). The Pearson correlation coefficients between the variables were shown in Table 1.

**Table 1.** Pearson correlation coefficients between variables

Variables	M	SD	1	2	3
1. Mindfulness	52.63	11.22	1		
2. Thriving	33.82	6.3	.21**	1	
3. Self-Efficacy	28.21	5.2	.34**	.40**	1

Note. \*\*  $p < .01$

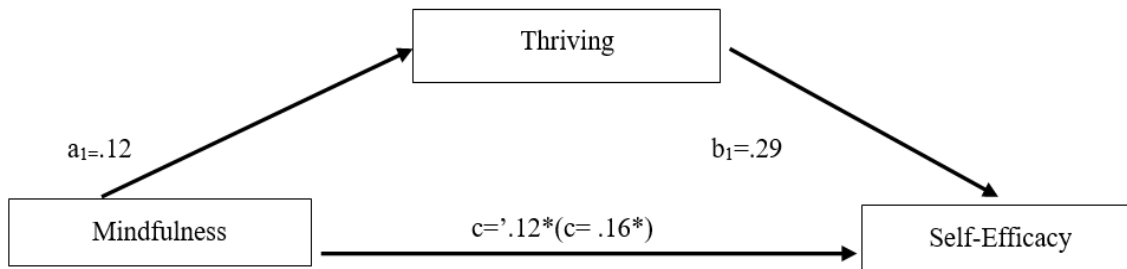
### Simple Mediation Model

The model is brought forward by Hayes (2013) to examine the mediator role of *Thriving* for the relationship between *Mindfulness* and *Self-efficacy*. The model had one indirect effect and a direct effect. As presented in Figure 1, these effects were as follows. The indirect effect of *Mindfulness* on *Self-efficacy* through *Thriving* ( $a_1b_1$ ). The sum of this, one indirect effect shows the total indirect effect of *Mindfulness* ( $X: a_1b_1 + a_2b_2 + a_1d_1b_2$ ). When the direct effect of *Mindfulness* on *Self-efficacy* is put into the total indirect effects, the total effect of *Mindfulness* is observed ( $c$ ).

$$c = c' + a_1b_1 \quad (1)$$

In the simple mediation model, the total indirect effect of *Mindfulness* on *Self-efficacy* is equivalent to the difference between the total effect of *Mindfulness* on *Self-efficacy* ( $c$ ) and the direct effect of *Mindfulness* on *Self-efficacy* ( $c'$ ).

$$c - c' = a_1b_1 \quad (2)$$



**Figure 2.** Mediation model with Thriving as a mediator variable

The direct effect of *Mindfulness* on *Self-efficacy* was found to be statistically significant ( $c' = .12$ ,  $t_{(309)} = 5.12$ ,  $p < .001$ ). On the other hand, when the mediator variable (*Thriving*) is considered, the direct relationship between *Mindfulness* and *Self-efficacy* decreases but did not lose significance ( $c'$  path  $\beta = 0.12$ ,  $SH = 0.02$ ,  $t = 5.12$ ,  $p < .01$ , CI 0.07, 0.17). It should be pointed out that some indirect effect may be meaningful, mediated by *Thriving*. The first indirect effect (ind1) came in that of the *Mindfulness* on *Self-efficacy* through *Thriving* (*Mindfulness*→*Thriving*→*Self-efficacy*),  $a_1b_1 = (0.11) (0.28) = 0.03$ . This indirect effect was significantly positive because the bootstrap confidence interval was above zero (CI 0.01, 0.05). These findings suggest that *Thriving* increases with increased *Mindfulness* ( $a_1$  positive), and that increasing *Thriving* was correlated with increased *Self-efficacy* ( $b_1$  positive). Furthermore, the model has not been any gender differences effect ( $\beta = 0.66$ ,  $SH = 0.65$ ,  $t = 1.00$ ,  $p < .01$ , CI -0.63, 1.95).

Lastly the model has been significant ( $F_{(2,307)} = 31.41$ ,  $p < .001$ ,  $R^2 = .23$ ) and has described 23% of the total variance. The results of the mediation analysis are shown in Table 2.

**Table 2.** Results of the simple mediation analysis

Variables	$M_1(T)$				$Y(SE)$			
		Coeff ( $\beta$ )	SH	p	Coeff ( $\beta$ )	SH	p	
X (MA)	$a_1$	0.12	0.03	.000	$c'$	0.12	0.02	.000
$A_1$ (T)		-	-	-	$b_1$	0.29	0.04	.000
Constant		26.34	1.89	.000		11.26	1.80	.000
		$R^2 = .05$				$R^2 = .23$		
		$F_{(1,308)} = 8.37, p = .000$				$F_{(2,307)} = 31.41 p = .000$		

Note. M = Mediator, MA = Mindfulness Awareness Scale, T = Thriving at School Scale, SE = Self-efficacy

## Discussion

The purpose of the current study was to examine the mediating role of thriving in the relationship between mindfulness and self-efficacy. Results of the study showed that thriving has positive and significant mediating effect on the relationship between mindfulness and self-efficacy in the middle adolescence sample.

According to the first result of the present study, the total effect between mindfulness and self-efficacy has proved significant. To maintain self-efficacy, adolescence should observe and regulate their emotions and behaviors. To observe and to regulate these, mindfulness is crucial in allowing students to be aware of their own behavior. Many studies (Greason & Cashwell, 2009; Hanh, 1993; Levine, 2000) have

emphasized the relationship between mindfulness and self-efficacy, which prove parallel to this study in terms of results. It can be said from these statements that adolescences with being aware of their environments and themselves in the present moment without judgements can experience more self-efficacy. Besides, in literature it is stated mindfulness-based activities in the classroom may provide adolescent to engage in academic issues more efficiently and to do healthy decision about their life (Garrison Institute, 2005; Lawlor, 2014). Thus, this study result may provide teachers and counselors to develop mindfulness-based programs and activities to increase adolescence's self-efficacy.

According to the second result of the study, it can be seen that as mindfulness increases, thriving increases as well. Many studies about the relationship between mindfulness and thriving are parallel to this result (Brown et al., 2007; Glomb et al., 2011; Şahin et al., 2020). Awareness of emotions and thoughts without judgments and regulating them increase thriving in adolescence (Lerner et al., 2003, 2005, 2011). As Siegel (2007) stated that people being mindful can learn how to be more open-minded which may lead them to thrive with life issues. Thus, it is probably said that there is a clear link between mindfulness and thriving.

According to the third result of the study, self-efficacy increases as thriving increases. Thriving may provide the students to use and master their academic performance and skills via vitality. Many studies (Betz & Voyten, 1997; Deane et al., 2017; Hirschi, 2009; Jelcic et al., 2007; Scales et al., 2011) that indicated the relationship between thriving and self-efficacy have found complimentary results to those of the present study. It can be said from this result, to increase adolescences' self-efficacy, teachers and counselors may develop some educational activities and programs concerning thriving to guide adolescence.

Finally, the mediator role of thriving in the relationship between mindfulness and self-efficacy has also been demonstrated. In other words, thriving increases as mindfulness increases, and self-efficacy increases as thriving increases. This means not only mindfulness but also thriving may provide to engage and regulate emotion, though which may increase the adolescences' self-efficacy. As mentioned above, although the relationship among mindfulness, self-efficacy, and thriving appear in literature, only few studies examined these concepts at the same time. Thus, this study presented a model showing that self-efficacy in middle-adolescence should be determined with mindfulness and thriving in mind.

Considering the results, this study has various limitations and contributions. Within the framework of these limitations, some suggestions may be presented for future research. The findings of this study are limited to results obtained from self-report scales. It is thought that there may be biases in the answers given to the questions, as individuals tend to become defensive and present themselves well in self-report-based evaluations. In this second study, data for dependent and independent variables were gathered from one source. According to Podsakoff et al. (2003) and Antonakis et al. (2010), collecting data from dependent and independent variables from the one source may reveal variance deviation error. In order to reduce the negative effects of variance deviation error, the discrimination of all measurements in the study has been tested. In addition, the sample group is limited with the data of the participants studying in the Anatolian side of Istanbul. Adolescents studying in different regions of Turkey can work with a sample group. Finally, one mediating variable has been used in this study. Other variables such as self-regulation can be viewed in serial or parallel model.

However, despite all these limitations, it is hopefully said that this study will contribute to the literature by revealing that thriving increases with increased mindfulness, while self-efficacy increases with increased thriving. Based on the data from this study, counselors or teachers can add the concept of thriving into mindfulness programs/activities to increase adolescences' self-efficacy.

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