



## Predictive Effect of Adolescents' Body Cathexis on General Self-efficacy and The Use of Instagram

Abdullah DALKİÇ

*Ministry of Education, Turkey*

*ORCID: 0000-0002-0219-9549*

Zöhre KAYA \*

*Department of Guidance and Counselling, Faculty of Education, Yuzuncu Yil University,  
Turkey. ORCID: 0000-0001-9211-3632*

---

### Article history

#### Received:

28.06.2020

#### Received in revised form:

07.01.2021

#### Accepted:

11.01.2021

---

### Key words:

The use of Instagram;  
Body-cathexis;  
General self-efficacy;  
Adolescent;  
Moderator;  
Prediction.

This research aims to investigate whether adolescents' body-cathexis predicted general self-efficacy by using Instagram. The study employs correlational research model and was conducted with a total of 790 students, including 503 women and 207 men. Body-Cathexis Scale and General Self-efficacy Scale were used to collect data. Confirmatory Factor Analysis (CFA) and item analysis (item total correlation and Cronbach Alpha) were conducted for the reliability and validity of the scales. Data were analysed utilizing Descriptive statistics, Pearson correlation and hierarchical regression analysis. The findings show that initiating and resilience sub-scales of the general self-efficacy scores are at a good level. Persuasion subscale is at medium level and the participants have positive body-cathexis. The relationship between adolescents' body-cathexis and general self-efficacy was positive and body-cathexis and the use of Instagram together explained 12% of the change in general self-efficacy. Accordingly, while body-cathexis has a positive and significant effect on general self-efficacy, the use of Instagram has no significant effect on general self-efficacy alone. According to the hierarchical regression analysis, the use of Instagram has no moderator role in the relationship between body-cathexis and general self-efficacy. As a result, it is important for adolescents to develop the body-cathexis and general for personality, self-confidence as well as to cope with negative emotions.

---

### Introduction

The increasing use of social media in parallel with the development of technology also brings along some problems for adolescents who are frequent social media users. The models featuring on social media can negatively affect their body-cathexis (Güvenen, 2017). Adolescents often experience dissatisfaction with their body, as they are exposed to images of beautiful, well-groomed, fit people on social media. Since body-cathexis gains importance especially in adolescence, the effect of social media should be explored to understand to what

---

\*Correspondency:zohrekaya@yyu.edu.tr

extent it plays a role in it (Ercan, 2018). At the same time, learning from social media, observing different people and events, and getting feedback on many topics can also affect the general self-efficacy beliefs of adolescents.

The historical process of addressing the concepts of body-cathexis psychology shows that the problems with individuals' physical appearance were tried to be explained between the years 1950-1960 from a psychoanalytic perspective. In the 1970s, social psychologists focused on how body-cathexis was affected by social relationships, and since the 1990s, it is seen that cognitive behavioural theories focus on the concept of body-cathexis (Sarwer & Polonsky, 2016). Concepts such as "body image", "body diagram", "body ego" or "body border" are used instead of the body-cathexis concept (Uşkun & Şabaplı, 2013). Studies on body-cathexis have dominated social research since the 1980s (Oğuz, 2005). Considering the previous studies, the concept is used in studies in relation to psychiatric and neurological problems, drug effects, psychotherapy results and psychosomatic diseases. This wide area of use has made the concept an important phenomenon in terms of neurology, psychiatry and psychology disciplines (Tarhan, 1995).

The concept of body image was introduced by Australian psychiatrist Paul Ferdinand Schilder. Schilder (1950) explains body image as the "mental image" that the person creates against one's own body (as cited in Eşiyok Sönmez & Özgen, 2017). In other words, body image is a concept referring to the mental representation of the individual's body (Hutchinson, 1982). Also, body-cathexis is part of the concept of self and is closely related to self-esteem. Negative feelings about the body constitute the concept of negative self (Uğurlu & Akın, 2008). Therefore, body-cathexis is the main factor of our perceptions about our own body and our feelings of success based on these perceptions (Atwater, 1990). Achievement is formed by the combination of multiple factors such as body-cathexis, self-esteem, self-confidence and self-acceptance (Tarhan, 1995). Therefore, body-cathexis is an important component of self and includes conscious and unconscious feelings, thoughts and perceptions that are related to one's body. It is an important concept that affects the eating behaviour, social anxiety level, sexual behaviour, social relationships and emotional state of the individual (Özcan et al., 2013).

The concept of body cathexis starts to be shaped since childhood and includes one's own subjective image of his/her changing body (Babacan Gümüş et al., 2011). Body image, which is a part of personality, is related to self-perception, and signifies whether one is pleased with his/her own body as well as one's desire to be evaluated by others (Karagöz & Karagün, 2015). Therefore, the concept of body cathexis includes both a cognitive approach that includes perceptions about body and body experiences, and an emotional approach to appearance, such as being satisfied or satisfied (Bektaş, 2004).

The perspective of others is important in the development of one's body cathexis. This may change over time, can be shaped by socio-cultural values and may or may not be compatible with the real structure of the person. For example, one can see him/herself as overweight even though s/he is slim (Demirer, 2010). The impact of socio-cultural values becomes more prominent with the development of technology, and the socio-cultural pressure that people feel on their bodies is increasing. The factors such as peer groups, family and media are effective in increasing this pressure (Esnola, Rodrigues & Goni, 2010). The fact that the body is reshaped with different ideals such as the media, the images used, the TV programs, or social networks makes it important that we study the ways in which media affects the body image (Eşiyok Sönmez & Özgen, 2017).

Self-efficacy belief is one's own judgment and belief about how successful one can be in the face of difficult situations. Self-efficacy is one of the important drivers of human behaviour and has an important place in the mental health of adolescents (Yardımcı & Başbakkal, 2010). Each development step brings new challenges to deal with. As adolescents approach adulthood, they try to learn to take on all the responsibilities brought by adolescence. This requires mastering many new skills. Learning how to deal with emotional intimacy and friendship becomes an important issue in this period. Adolescents strengthen their self-efficacy to learn how to deal with these issues. The development of flexible self-efficacy requires some challenging experiences and patience. Overcoming difficulties creates a strong belief that one can succeed when faced with difficulties. Adolescents strengthen their self-efficacy as they learn to cope with some risky behaviours in their intimate environment and are supported by their social environment (Bandura, 1989). At the same time, self-efficacy can protect the adolescent against risky behaviours thanks to the impact it creates on the individual's emotions, thoughts and behaviours (Arslan & Balkıs, 2016).

According to Bandura (1994), there are four basic sources that affect an individual's self-efficacy belief. Completed success performance, covering the experience of a successful person, is the most effective source of self-efficacy. Because, if the person achieves, then this creates a reward effect for the individual. For example, being a manager of a page on social media, receiving a lot of likes, reaching thousands of people by sharing a video can contribute to the development of self-efficacy by providing a sense of accomplishment.

Verbal persuasion is another source of self-efficacy, which includes encouraging or persuading the person's environment in terms of whether to accomplish or not. Verbal persuasion within realistic boundaries affects people's beliefs about whether they can achieve what they want to do. What the social environment says can change a person's perception of whether they can achieve a job and persuade the person. Thus, one's self-efficacy belief is also affected by this situation. Again, while the process of providing information to the reader in the traditional media is the main focus, in social media, it is the people who get the attention and focus. People can share anything they care about, and other people can comment, give feedback and express their opinions (Sepetci, 2017). In other words, verbal persuasion, which is one of the sources of self-efficacy, nowadays consists not only of physical environment but also of virtual environments.

The physiological state also affects one's self-efficacy. If a person is stressed and nervous, their belief in achieving something also changes. The situation that the person is in both mentally and physically, affects the behaviour. If the person is physically and mentally healthy at that moment, the likelihood of attempting to perform the behaviour in question will also increase. Especially in jobs that require strength and endurance, people see their fatigue and pain as physical indicators, and therefore the mood affects one's self-efficacy (Bandura, 1982). Thus, affecting a person emotionally on a social media photo or video may affect his self-efficacy.

Indirect experiences, on the other hand, are observations of a person. People develop beliefs about whether they can display a behaviour by observing the results of that behaviour in their intimate environment. (Bandura, 1994). In other words, one can build self-efficacy by observing the experiences of other people. If the observed person is successful, the person may have a belief that s/he can also be successful in that job. Therefore, indirect experiences serve as an important tool in the development of the self-efficacy of the individual as they guide the individual's experiences of success (Bandura, Caprara, Barbaranelli, Pastorelli, &



Regalia, 2001). Therefore, observing the achievement of people who are friends or followers on social media offers an indirect life to the person and this may affect self-efficacy.

The increase in internet use is mostly seen with the spread of social networks and blogs (Sepetci, 2017). The research of Hazar (2011) with university students show that half of the students use the internet only for social media applications. The development of social networking sites in the last two decades has created a new online world for adolescents (Cohen, 2016). The impact of social media on physical appearance as well as the effects it creates in many areas are important issues (Gomez, Villalobos & Fausto, 2015). In this context, it is a common social network practice to highlight a number of elements such as aesthetics, beauty, a smooth body, make-up, hair, and fashion, and try to get closer to the so-called body image by sharing visuals. Women usually organize their own body cathexis through the photos shared on social media. (Uğurlu, 2015). As a matter of fact, women generally report higher body dissatisfaction than men in every period of their lives (Esnola, Rodrigues, & Goni, 2010). This result is not surprising. Because, although the changes over the time have changed values, attitudes, beliefs in parallel with the changes in the socio-cultural structure, there are still unchanging elements such as how women bodies are perceived (Aktaş & Tepe, 2015).

Forty-one percent of Instagram users are between the ages of 16-24 (Sepetci, 2017). A significant portion of the individuals in this age range are adolescents. The effects of social networks on the physical appearance and social comparison tendency of adolescents on their body-cathexis cannot be ignored. Studies examining the impact of social media on individuals' self-efficacy beliefs are very limited. The research in this field has often been conducted with immigrants (Hu, Liu, & Gu, 2018), those with health problems (Yu & Cho, 2005), or with those who ignore the issues of climate change (Huang, 2016). However, a study on the effect of using Instagram as a social media tool on adolescents' self-efficacy beliefs has not been found in the literature.

It is believed that the findings of this research can reveal important information on Instagram and its effect on body cathexis and self-efficacy belief. Instagram is quite popular among the adolescents and it is, at the same time, thought to affect them significantly, but there are very few academic studies exploring these effects. It is anticipated that the results will contribute to the researchers and practitioners in terms of providing data, as well as guiding preventive and protective studies.

## **Method**

### ***Research Design***

The research employs correlational research model. The study tests the moderator effect of using Instagram in the relationship between general self-efficacy as a dependent variable and body cathexis an independent variable. The moderator variable is defined as a qualitative or quantitative third variable that affects the direction and / or strength of the relationship between a predictive variable (independent variable) and a predicted variable (dependent variable) (Baron & Kenny, 1986).

### ***Participants***

The participants of this research are 790 students studying at three different high schools of a city in the eastern anatolia region in Turkey. Sixty-three percent of the

participants are female (503) whereas thirty six per cent are male (207). 26.2% of the participants are 14-15 years old, 50.9% are 16-17 years old and 22.9% are 18 years old and above. 58.22% of the students stated that they use Instagram and 41.78% of them stated that they do not use Instagram. 52% of the students who stated that they use Instagram and 9.7% of the students who stated that they do not use Instagram also indicated that they use Facebook at the same time.

## **Instruments**

### *The Appraisal of Body-Cathexis*

This scale was developed by Secord and Jourard (1953) and was adapted to Turkish by Hovardaoglu (1993). It is a five-point Likert style scale and has 40 items (1: I don't like at all and 5: I like it very much). The scale score is calculated by summing the points given to the items, and the high score ( $> 135$ ) indicates the high appraisal of body -cathexis. The revision of the scale was made by Anbar (2013). Internal consistency coefficients of the two halves of the scale were .79 and .87 respectively; the internal consistency coefficient for all of them was determined as .95.

### *Self-efficacy Scale*

This scale was developed by Sherer et al. (1982). It was later on improved by Sherer and Adams (1983) and adapted to Turkish Yıldırım and İlhan (2010). The scale seeks response to the question: "How much does it describe you?" and consists of 3 subscales (initiating, resilience and persuasion) with 17 items that offer a five-point Likert type (1: none, 5: very well). 11 items of the scale (2, 4, 5, 6, 7, 10, 11, 12, 14, 16 and 17) are reverse. High scores from the scale expresses high levels of self-efficacy belief (and its subscales). The internal consistency coefficient of the entire scale was found to be .80. According to the two-half reliability analysis, Guttman Split-half coefficient is .77. In addition, for each item of the scale, item total correlations and item Cronbach Alpha coefficients ranged between .78 and .81.

### *The Demographic Form*

It is a demographic information form consisting of information about participants' gender, age, and the use of Facebook and Instagram.

## **Data Analysis**

In this study, Confirmatory Factor Analysis (CFA) and item analysis (item total correlation and Cronbach Alpha) were performed within the scope of the reliability and validity studies of the scales. AMOS 22.0 was used for CFA and path analysis, and SPSS 21.0 for item analysis and correlation testing. In the evaluation of model fit in structural equation models, "Ratio of chi-square statistics to degree of freedom" ( $\chi^2 / \text{df}$ ), "statistical significance of individual parameter estimates" (t value), residual fit indices (SRMR, GFI), fit indices based on independent model (Fit indexes classified as NFI, NNFI, CFI) and the mean square root of the approximate errors (RMSEA) were used. Within the scope of the reliability study, item-total correlation and Cronbach Alpha tests were applied. In general, it can be said that items with a total item-correlation of .30 and higher distinguish the items well, and items between .20 and .30 can be tested if necessary. Cronbach Alpha shows internal consistency and is generally expected to be above .70 (Büyüköztürk, 2011). Skewness coefficient was



used in the normality test of scale and subscale scores. In order to determine the relationship between scale scores, Pearson correlation, the effect of body cathexis on general self-efficacy beliefs and hierarchical regression analysis were used to determine the moderator role of Instagram use. The significance level was determined as .05 in the analysis.

### *Confirmatory Factor Analysis Results of the General Self-Efficacy Scale*

The fit index values obtained from the CFA result of the General Self-Efficacy Scale are shown in Table 1. According to the results of the first confirmatory factor analysis and the item factor loads were found to be appropriate and the model fit indexes were generally good. Covariance connections were also established in line with the modification recommendations, and the fit indexes were revised.

**Table 1.** General Self-efficacy Scale model fit indexes

<b>Model Fit Indexes</b>	<b>17 items</b>	<b>17 items</b>
	<b>3 subscales</b>	<b>3 subscales*</b>
X <sup>2</sup> /sd	3.40	2.93
RMSEA	.06	.05
SRMR	.05	.05
GFI	.94	.95
NFI	.89	.91
NNFI	.91	.93
CFI	.92	.94
Factor load (min-max)	.41-.75	.42-.74
Standard error (min-max)	.06 – .16	.06 – .17

\*With covariance connections

As seen in Table 1, as a result of appropriate covariance connections, 17 items and 3-subscale structure in the General Self-Efficacy Scale were found to be appropriate. According to CFA results, model fit indexes are good and very good, error variances are low (in the range of .06 to .17); factor loads are significant in the range of .42 to .74 and t values at the level of .01 (Table 2).

**Table 2.** General Self-efficacy Scale CFA and item analysis results

<b>Factor and Items</b>	<b>Std. B</b>	<b>T</b>	<b>R<sup>2</sup></b>	<b>r</b>	<b>a (0,8)</b>
<b>Initiating</b>					
item2	.40		.16	.31	
item4	.43	8.66**	.19	.33	
item5	.62	9.62**	.39	.53	
item6	.60	9.45**	.36	.52	.79
item7	.53	9.03**	.28	.42	
item10	.66	9.82**	.44	.55	
item11	.60	.47**	.36	.47	
item12	.61	.53**	.37	.47	
item17	.42	8.04**	.28	.36	
<b>Resilience</b>					
item3	.70			.53	
item13	.63	17.43**	.40	.44	.81
item14	.66	15.01**	.44	.50	
item15	.67	15.24**	.45	.47	
item16	.71	16.71**	.50	.61	
<b>Persuasion</b>					
item1	.74			.47	.71
item8	.55	10.05**	.30	.38	
item9	.62	10.90**	.39	.40	

r: Total Item Correlation

\*\*p<.01

As it is shown in Table 2, the Cronbach Alpha coefficient of the scale is .85. The alpha coefficients of the sub-scales are .79 - .81 and .71, respectively. The item-total correlation for all items in the scale is higher than .30 (ranging from .31 to .61). The findings show that the General Self-Efficacy Scale is a reliable and valid scale with 17 items and a 3-subscale structure.

#### *Confirmatory Factor Analysis Results of Body-Cathexis Scale*

The fit index values of the Body Cathexis Scale obtained from the CFA result are shown in Table 3. According to the first confirmatory factor analysis results, item factor loads are appropriate; nevertheless, since the fit indexes were observed to be partially appropriate, covariance links were revised.

**Table 3.**Body-cathexis Scale model fit indexes

<b>Model Fit Indexes</b>	<b>40 items</b>	<b>40 items</b>
	<b>One subscale</b>	<b>One subscale*</b>
X <sup>2</sup> /sd	5.22	2.88
RMSEA	.07	.05
SRMR	.05	.04
GFI	.77	.88
NFI	.80	.90
NNFI	.82	.92
CFI	.83	.93
Factor Load (min-max)	.54-.79	.49-.79
Standard error (min-max)	.06-.09	.06-.09

\*With covariance connections

As seen in Table 3, as a result of appropriate covariance connections, Body-Cathexis Scale consisting of 40 items and one-subscale structure were found to be appropriate. According to CFA results, model fit indexes are good and very good, error variances are low (in the range of .06 to .09); factor loads are significant in the range of .49 to .79 and t values at the level of .01 (Table 4).

**Table 4.**Body-cathexis Scale CFA and item analysis results

<b>Items</b>	<b>Std. <math>\beta</math></b>	<b>T</b>	<b>R<sup>2</sup></b>	<b>R</b>	<b><math>\alpha</math></b>
item1	.61		.37	.60	
item2	.62	17.77**	.39	.62	
item3	.58	14.23**	.33	.57	
item4	.63	15.27**	.40	.61	
item5	.49	12.41**	.24	.50	
item6	.54	13.61**	.30	.54	
item7	.62	15.13**	.39	.63	
item8	.57	14.13**	.33	.57	
item9	.63	15.21**	.39	.63	.97
item10	.71	16.80**	.51	.70	
item11	.65	15.58**	.42	.64	
item12	.71	16.76**	.51	.69	
item13	.68	16.25**	.47	.66	
item14	.64	15.44**	.41	.62	
item15	.70	16.51**	.49	.68	
item16	.75	17.44**	.57	.73	
item17	.74	17.29**	.55	.73	



item18	.67	15.99**	.45	.65
item19	.65	15.66**	.42	.64
item20	.56	13.93**	.31	.58
item21	.69	16.30**	.47	.68
item22	.76	17.51**	.57	.73
item23	.71	16.66**	.50	.69
item24	.70	16.53**	.49	.68
item25	.69	16.37**	.47	.68
item26	.64	15.41**	.41	.64
item27	.73	17.15**	.54	.71
item28	.57	14.05**	.32	.56
item29	.63	15.27**	.40	.65
item30	.71	16.71**	.50	.68
item31	.61	14.92**	.37	.60
item32	.57	14.20**	.33	.57
item33	.63	15.34**	.40	.63
item34	.61	14.99**	.38	.63
item35	.76	17.53**	.57	.73
item36	.79	18.01**	.62	.76
item37	.74	17.20**	.54	.72
item38	.65	15.72**	.43	.64
item39	.68	16.28**	.47	.70
item40	.58	14.31**	.34	.59

r: Total Correlation    \*\* $p < .01$

As shown in Table 4, the item analysis show that the Cronbach Alpha coefficient of the scale is .97. The item-total correlation for all items in the scale is higher than .30 (in the range of .50 and .76). According to the findings, Body-Cathexis Scale is a reliable and valid scale with 40 items and one-subscale structure.

## Findings

### *Descriptive Statistics of Body-Cathexis and General Self-Efficacy Scale*

Table 5 presents the Descriptive statistics of the General Self-efficacy Scale and Body-Cathexis Scale Scores.

**Table 5.** Descriptive statistics of the General Self-efficacy and Body-cathexis Scale

Scale and Sub-scale	Number of Items	n	$\bar{X}$	Sd	Skewness
General Self-Efficacy	17	790	3.43	.72	-0.03
Initiation	9	790	3.46	.80	-0.52
Resilience	5	790	3.47	.99	-0.21
Persuasion	3	790	3.37	1.00	-0.22
Body-Cathexis	40	790	3.45	.88	-0.52

As seen in Table 5, the initiating ( $3.46 \pm .80$ ) and resilience ( $3.47 \pm .99$ ) subscale scores and the overall good self-efficacy belief scores ( $3.43 \pm 0.72$ ) level is good. The persuasion subscale score ( $3.37 \pm 1.00$ ) is “medium”. The body-cathexis scores of adolescents ( $3.45 \pm .88$ ) were found to be at the level of “I like it very much”.

### Findings Related to Prediction of General Self-Efficacy Level

Firstly, the results of the correlation analysis related to the scores of Body-Cathexis Scale and the General Self-efficacy Scale are presented in Table 6.

**Table 6.**Results of Pearson correlation analysis for the relationship between Body-cathexis and General Self-efficacy

Variables	2	3	4	5
1-Body-cathexis	.12**	.34**	.23**	.31**
2-Initiating		.41**	.30**	.71**
3-Resilience		1	.40**	.80**
4-Persuasion			1	.77**
5-General Self-Efficacy				1

As seen in Table 6, the correlation analysis conducted to determine the relationship between adolescents' body cathexis and general self-efficacy showed there is a statistically significant relationship between the sub-scales of both scales. Accordingly, there is a positive relationship between the body-cathexis and initiating ( $r = .12$ ;  $p <.01$ ), resilience ( $r = .34$ ;  $p <.01$ ), persuasion ( $r = .23$ ;  $p <.01$ ) and general self-efficacy ( $r = .31$ ;  $p <.01$ ). It can be said that the adolescents with high general self-efficacy beliefs also have high body cathexis. The results of the hierarchical regression analysis regarding the general self-efficacy predictor of body cathexis of adolescents according to the use of Instagram are given in Table 7.

**Table 7.**Results of Hierarchical Regression analysis regarding General Self-efficacy prediction of Body-cathexis of adolescents according to the use of Instagram

Model	Independent Variable	B	SH <sub>B</sub>	$\beta$	t	p
1	Invariant	2.441	.099		24.662	<b>.000</b>
	Body-Cathexis	.292	.027	.356	10.644	<b>.000</b>
	The use of Instagram <sup>1</sup>	-.028	.049	-.019	-.567	.571
	R=.355      R <sup>2</sup> =.126ΔR <sup>2</sup> =.124 F <sub>(2, 787)</sub> =56.757      p=.000					
2	Invariant	2.341	.138		17.003	<b>.000</b>
	Body-Cathexis	.321	.040	.393	8.123	<b>.000</b>
	The use of Instagram <sup>1</sup>	.169	.194	.116	.872	.384
	BA X IK	-.057	.055	-.147	-1.048	.295
	R=0.357      R <sup>2</sup> =0.127ΔR <sup>2</sup> =0.124 F <sub>(3, 786)</sub> =38.209      p=.000ΔR <sup>2</sup> <b>Change: .000</b> p>0,05					

<sup>1</sup>: Instagram user=1 BA: Body-Cathexis      IK: The use of Instagram

When Table 7 is examined, the first model examines the effect of the independent variables of the research of body-cathexis and the use of Instagram on the general self-efficacy (dependent variable) and it proves to be an appropriate model  $F_{(2,787)}=56.76$ ;  $p<.05$ ). Body-cathexis and the use of Instagram explain approximately 12% of the total variance in the general self-efficacy variable ( $\Delta R^2=.124$ ).

According to the first model, body-cathexis has a positive and significant effect on general self-efficacy ( $\beta=.36$ ;  $t=10.64$ ;  $p<.05$ ). It was determined that the use of Instagram does not have a significant effect on general self-efficacy ( $p> .05$ ). Accordingly, adolescents with high general self-efficacy also have high positive body-cathexis.

As can be seen in Table 7, the second step of the hierarchical regression analysis conducted to



determine the moderator role of the use of Instagram in the relationship between body-cathexis and general self-efficacy showed that moderator variable (body cathexis and use of Instagram) does not have a moderator effect on general self-efficacy ( $\beta=-0.15$ ;  $t=-1.05$ ;  $p>.05$ ) and no significant effect ( $p>.05$ ) in explaining the variance (%0).

## Discussion, Conclusion and Suggestions

This research aims to investigate whether adolescents' body-cathexis predicted general self-efficacy and to what extent the use of Instagram explains this. According to the preliminary findings, the average of the overall self-efficacy sub-scales and general self-efficacy scores of the adolescents were good and persistence sub-scale scores were moderate. This finding shows that adolescents trust themselves in terms of dealing with developmental difficulties, that they do not give up and have a good level of belief in achieving their developmental assignments. This result is in line with the knowledge that individuals with high self-efficacy tend to make more effort when working on a subject and show more patience when they encounter obstacles (Ormrod, 2018). The self-efficacy belief that affects individuals' cognitive, motivational and emotional responses helps them determine how much effort they have in order to cope with anxiety and how long they can persevere. The beliefs that adolescents get high scores from self-efficacy total and sub-dimensions show that they are able to adjust their performance against events affecting their lives and they have a sense of competence. As stated (Kumar & Lal, 2006), people with low self-efficacy may believe that things are more difficult than they are, these beliefs can increase stress and cause them to have a narrow vision to solve the problem. A strong sense of self-efficacy affects one's success and well-being in many ways. People who rely on their abilities see difficult tasks as challenges that can be overcome rather than threats to be avoided. When they fail, they do not give up and quickly regain their sense of competence. In this way, a perspective pertaining to personal success is created which reduces stress and vulnerability to depression (Bandura, 1994). When evaluated in terms of adolescents, it enables the general self-efficacy belief (Tong & Shanggui, 2004) which is related to psychological well-being, and encourages the use of effective coping strategies (Luszczynska, Gutiérrez-Doña, and Schwarzer, 2005). In fact, having a sense of self-efficacy stands out as a basic human need (Ormrod, 2018). Yıldırım and İlhan (2010) found that similar results were obtained in all subscales of self-efficacy scale except for the persistence sub-scale. When evaluated in general, adolescents' perceptions about self-efficacy beliefs are high. Based on this, it can be said that the beliefs of adolescents about their capacities are also at a good level.

When the scores obtained in this study are analyzed, it is seen that adolescents' evaluations about body-cathexis are positive. Body-cathexis consists of the individual's perception related to one's characteristics such as physical appearance, attitudes, emotions and personality. While this perception is being shaped, it is influenced by the individual's internal sensations, experiences associated with their own bodies, feedback from the world of imagination and other people (Bektaş, 2004). It is also known that culture is an important factor in individuals' awareness of and interpretation of changes in their bodies and in others' bodies. It is emphasized that the meanings that cultures attribute to certain physical features are effective in the formation of body-cathexis. Therefore, the society and culture have an important effect on body-cathexis (Helman, 2001). Adolescents are expected to accomplish their missions by accepting their bodies along with their developmental tasks such as performing a social role appropriate for their gender, establishing close relationships with both genders, obtaining a moral system, and achieving emotional independence (Arslan, 2012). At this point, it is stated that the positive body image is related to the self-acceptance, self-confidence, and staying

strong against negative situations (Jung & Lee, 2006). At the same time, being satisfied with the physical appearance, trying to adapt to the changes in the body with rapid growth and change, and meeting the satisfaction of the society can cause significant changes in adolescents' body-cathexis. Since physical attraction is an important factor, a positive body-cathexis is important to lead a healthy life (Çelen, 2008). The body-cathexis is more subjective than objective (Arslangiray, 2013). Positive body cathexis emerges as a result of the individual's efforts. When the studies in the literature are examined, some research support this finding and some do not. The research conducted with high school students (Anbar, 2013; Uşkun & Şabaplı, 2013) show that body cathexis of the adolescents is at a good level and echo the results of this study. In the study conducted by Arslangiray (2013), it was found that the participants' evaluations regarding body cathexis were low.

This research showed a positive correlation between adolescents' body cathexis and their overall self-efficacy total score and the sub-scales of general self-efficacy, imitating, resilience and persistence scores. The adolescents with high general self-efficacy levels also have high body-cathexis. Body-cathexis is affected by lifelong continuous development, physical image with the person's self-image, level of learning and maturity, self-power, impulses, motivation, sense of trust, sensitivity to the body and the meaning attributed to the appearance (Uğurlu & Akın, 2008). In other words, one's own body-cathexis are closely related to self-confidence, self-respect, identity and personality concepts (Uğurlu & Akın, 2008). As can be seen, body-cathexis in adolescence functions as a symbol of self. At the same time, according to Bandura, self is a comprehensive concept that includes many perceptions of the person involved in self-efficacy (Alci, 2007). Thus, the variables that affect body-cathexis are also effective on self-efficacy. On the other hand, if the individual has a negative perception about one's own body, the self-efficacy of the individual is also negatively affected (Arslangiray, 2013). In addition, individuals who evaluate themselves physically in a positive fashion are more successful in interpersonal relationships and jobs (Uğurlu & Akın, 2008). Body cathexis also helps the person to defend oneself against daily stresses and threatening life events. Thus, it also contributes to the self-confidence, perception and capacity limitations (Arslangiray, 2013). Kılıç, Mammadov, Koçhan and Aypay (2018) conclude that the relationship between body-cathexis and general self-efficacy is positively significant and these two variables are important predictors of psychological resilience. The way one sees his/her own body can be defined as the emotions, behaviours and thought patterns that they create in their mind related to how they look and it is influenced by the feedback that the person receives from the intimate environment. The same applies to the concept of self-efficacy, which can be defined as a person's belief in what one can do. The fact that both body cathexis and general self-efficacy concepts are affected by common factors also explains the self-efficacy prediction of body cathexis.

Considering the results regarding the prediction of general self-efficacy, it was found that body cathexis and use of Instagram explain 12% of the change in general self-efficacy. Body cathexis, which is the independent variable of the research, has a positive and significant effect on general self-efficacy. It was determined that the use of Instagram, which is another independent variable, does not have a significant effect on general self-efficacy alone. Therefore body-cathexis is the most important predictor of the change in self-efficacy. General self-efficacy perceptions of adolescents with high body-cathexis are also high. The adolescents with high body-cathexis also have high self-efficacy.

The studies on the relationship between body-cathexis and social media mostly use the framework of social comparison theory and this is basically based on the thesis of comparing



the individual with another individual in one's intimate environment (Bayköse & Esin, 2019). When the effect of body-cathexis and Instagram on the self-efficacy is considered, it is emphasized that both body-cathexis and self-efficacy beliefs will be affected as the individuals who use Instagram are exposed to visuals concerning construction of ideal body. These images compel individuals to compare their bodies with those of others, and this can affect the person's body-cathexis. In addition, different achievements, activities and circles in the photos of the people who are followed on Instagram may cause the person to expand their social environment and take an attitude towards whether they can do these things. This may affect one's self-efficacy belief. It is more likely that the self-efficacy belief and body-cathexis of the adolescents will be affected by Instagram (Koçak, 2017).

This research showed that the use of Instagram does not have a significant effect on general self-efficacy alone. Instagram is an affordable and easy way to communicate and interact with people in the social media environment and does not create space restrictions (Hazar, 2011). In the modern communication age, communicating with social media groups such as family, friends, acquaintances, common interest groups (Haris, Majid, Abdullah, & Osman, 2014) provides the opportunity to socialize. As a result, users can do new observations, explore new environments. The process of learning through observation, emphasizes that a person can learn something not only from his own, but also by observing what others do. These individuals may be from the immediate environment, such as parents and siblings, or imaginary characters in the media or people in the media (Mcleod, 2016). In addition, since Instagram is a visual platform, it is a universally accessible environment where there is no language barrier (Cohen, 2016). The social media networks affect the self-efficacy resources of both individuals because they meet in different circles and observe these circles and get feedback from them and care about what they see on social media as much as their physical environment.

On the other hand, individuals using Instagram can come across different people than those they encounter in their daily lives. It is also possible that the famous people they follow are richer than the people around them, which in return makes them feel bad. As a matter of fact, the research of Dion (2015) shows that the life satisfaction levels of women decreased after following a group of celebrities. Their luxurious lives, perfect bodies and beautiful faces negatively affect the attitudes of individuals towards themselves. Another effect created by Instagram is that it creates an environment that can cause users to compete by comparing their likes, comments and followers. In fact, it has been stated that people transform themselves into a routine by expressing themselves with the photos they share (Ayan, 2016). In a study where the effects of Facebook usage on body image was examined within the framework of social comparison theory (Bayköse & Esin, 2019), it was found that Facebook usage had an active role on body image. Individuals faced negative situations such as body dissatisfaction and eating disorders by comparing their bodies with individuals from different populations.

In the second step of the hierarchical regression analysis conducted in order to determine the moderator role of the use of Instagram in the relationship between body-cathexis and general self-efficacy, it was concluded that the use of Instagram has no moderator role on general self-efficacy. Although adolescents have positive or negative body cathexis, it has been observed that the use of Instagram does not affect their self-efficacy and that Instagram does not have a moderator role between body-cathexis and general self-efficacy. Body-cathexis alone is a variable that predicts self-efficacy. In other words, the use of Instagram does not affect the direction and severity of the relationship between body-cathexis and general self-efficacy. The use of Instagram does not have a situational effect on the relationship between

body-cathexis and general self-efficacy. When studies investigating the relationship between Instagram and other social media tools with similar variables were examined, it was stated that social media use had a negative effect on body image, similar to traditional media organs (Perloff, 2014). The research (Fardouly & Vartanian, 2015; Fardouly & Vartanian, 2016) shows that the use of social media is related to body image concerns especially in young women and the increase in the frequency of use of Facebook causes anxiety in body image. The research that looked at the effect of Instagram on the self-confidence and life satisfaction (Dion, 2015) display that Instagram had no significant effect on self-confidence or life satisfaction. Another study (Gomez, Villalobos & Fausto, 2015) that examined the relationship between Instagram and body dissatisfaction, it was found that people who spent more time on Instagram had higher body dissatisfaction than those who spent less time on Instagram. Similarly, in the study conducted by de Vries, Peter, de Graaf and Nikken (2016) with 604 students aged between 11 and 18, the relationship between the frequency of social media use and body dissatisfaction was examined and it was seen that social media use increased body dissatisfaction.

When the results of the research were evaluated in general, it was seen that the beliefs and perceptions of adolescents about their self-efficacy were positive. This shows that adolescents have a high belief in their potential and have a positive perception in terms of self-acceptance and self-confidence. According to another finding, there was a positive relationship between adolescents' body cathexis and general self-efficacy levels. Body cathexis functions as a symbol of self during adolescence. Since 'self' is a comprehensive concept that includes self-efficacy and includes many perceptions, it can be stated that the variables that affect body cathexis are also effective on self-efficacy. The body image that the person creates in one's mind is influenced the feedback that one receives from the intimate environment.

Considering that both body cathexis and general self-efficacy concepts are affected by common factors, this study explains that body cathexis is an important predictor of general self-efficacy. This research signals the importance of carrying out protective and preventive studies for adolescents to use social media tools consciously. At the same time, given the protective functions of developing individuals' self-efficacy, body-cathexis and general self-efficacy related to overcoming difficulties are important to raise awareness of parents and teachers around this issue in this regard. Considering that these two variables are affected by the learning experiences of the individual, it is important for the lifelong development of the individual to include activities in the training programs to increase positive body-cathexis and general self-efficacy. This study was conducted with adolescents who attend different high schools at a province located in the central districts of the east of Turkey. This may be considered as an important limitation. The results of this research will constitute an important limitation in generalizing the findings across the country for adolescents in different age groups. Therefore, more studies can be conducted with similar variables in different settlements and different sample groups.

## Acknowledgements

This research was funded by Van Yuzuncu Yıl University, Scientific Research Project Council. The project is entitled 'Exploring the effect Instagram on Body-Cathexis and Self-efficacy of Adolescents' and project number is SYL-2018-723.



## References

- Aktaş, H., & Tepe, M. (2015). Approaches of university students on represented woman body in ads: The case of Amasya University. *International Journal of Social Sciences and Education Research*, 1 (2), 612-624.
- Alçı, B. (2007). *Students of Yıldız Technical University relationship between the explanatory and predictive relationships the points of achievement in ÖSS, perceived problem solving abilities, self efficacy perception and metacognitive self regulation strategies*. Doctoral dissertation, Yıldız Technical University, İstanbul, Turkey.
- Anbar, H. (2013). *Examining the relationship between body perception variable and various variables in high school students and validity and reliability study of body perception scale*. License Thesis, Ankara University, Ankara, Turkey.
- Arslan, G. (2012). *Adolescent problem behaviors in high school studying to investigate in family problems and family structure*. Master's Thesis, Pamukkale University, Denizli, Turkey.
- Arslan, G., & Balkış, M. (2016). Ergenlerde duygusal istismar, problem davranışları, öz-yeterlik ve psikolojik sağlamlık arasındaki ilişki [The relationship between emotional maltreatment, problem behaviors, psychological resilience, and self efficacy in adolescents]. *Sakarya University Journal of Education* 6(1), 8-22.
- Arslangiray, N. (2013). *University students' predictive power of attachment styles and gender role attitudes on body image*. Master's Thesis, Ankara University, Ankara, Turkey.
- Atwater, E. (1990). Psychology of adjustment personal growth in a changing world. 4. Edition. New Jersey: Prentice Hall.
- Ayan, G. (2016). *The use of identity construction in social media in the context of consumer culture: The case of instagram*. Master's Thesis, Başkent University, Ankara, Turkey.
- Babacan Gümüş, A., Çevik, N., Hataf Hyusni, S., Biçen, Ş., Keskin, G., & Tuna Malak, A. (2011). Characteristics associated with self-esteem and body image in pregnancy. *Anatolian Journal of Clinical Investigation*, 5(1), 7-14.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147. doi: <https://doi.org/10.1037/0003-066X.37.2.122>
- Bandura, A. (1989). Social cognitive theory. *Annals of Child Development*, (6), 1-60.
- Bandura, A. (1994). Self-efficacy. *Encyclopedia of Human Behavior*, (4), 71-81.
- Bandura, A., Caprara, G. V., Barbaranelli, C., Pastorelli, C., & Regalia, C. (2001). Socio-cognitive self-regulatory mechanisms governing transgressive behavior. *Journal of Personality and Social Psychology*, (80), 125–135.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173-1182.
- Bayköse, N., & Esin, İ. (2019). Sporda beden imajı ve sosyal medya etkisi: Sosyal karşılaştırma kuramı çerçevesinde facebook kullanımının beden imajına etkileri üzerine bir derleme [Body Image and Social Media Effect in Sports: A Review on the Effects of Facebook Usage on Body Image in the Context of Social Comparison Theory]. *Mediterranean Journal of Sport Science (MJSS)*, 2(1), 67-80.
- Bektaş, D.Y. (2004). Ergenlerde beden形象 üzerine bir çalışma [A study about body image in adolescence]. *Turkish Psychological Counseling and Guidance Journal*, 22, 67-75.
- Büyüköztürk, Ş. (2011). *Data analysis handbook for social sciences*. Ankara: Pegem Academy Publishing
- Cohen, L. H. (2016). *The relationship between Instagram usage and young women's body image satisfaction and appearance concerns*. Doctoral dissertation, William James University.

- Çelen, N. (2008). *Adolescence and young adulthood*. Istanbul: Papatya Publishing.
- de Vries, D. A., Peter, J., de Graaf, H., & Nikken, P. (2016). Adolescents' social network site use, peer appearance-related feedback, and body dissatisfaction: Testing a mediation model. *Journal of Youth and Adolescence*, 45(1), 211-224.<https://doi.org/10.1007/s10964-015-0266-4>
- Dion, N. A. (2015). *The effect of Instagram on self-esteem and life satisfaction*. Honor dissertation, Salem State University.
- Ercan, D. M. (2018). *Relationship between social media exposure and body image in late adolescence*. Master's Thesis, Üsküdar University, İstanbul, Turkey.
- Esnola, I., Rodrigues, A., & Goni, A. (2010). Body dissatisfaction and perceived socio-cultural pressures: Gender and age differences. *Salud Mental*, 33(1), 21-29.
- Eşiyok Sönmez, E., & Özgen, Ö. (2017). Medya kullanımı ve beden imajı: Türkiye ve İngiltere örneği [Media usage and body image: An example of turkey and the Uk]. *Journal of Akdeniz University's Faculty of Communication*, (27), 78-95.
- Fardouly, J., & Vartanian, L. R. (2015). Negative comparisons about one's appearance mediate the relationship between Facebook usage and body image concerns. *Science Direct*, 82-88.<https://doi.org/10.1016/j.bodyim.2014.10.004>
- Fardouly, J., & Vartanian, L. R. (2016). Social media and body image concerns: Current research and future directions. *Current Opinion in Psychology*, (9), 1–5. <https://doi.org/10.1016/j.copsyc.2015.09.005>
- Gomez, K., Villalobos, S., & Fausto, M. (2015, June). *Instagram's relationship to body dissatisfaction*. Research dissertation, California State University.
- Güvenen, G. (2017). *Determination of the effect of social media and mass media on high school students' body perception and social appearance anxiety*. Master's Thesis, Haliç University, İstanbul, Turkey.
- Haris, N., Majid, R. A., Abdullah, N., & Osman, R. (2014, September). The role of social media in supporting elderly quality daily life. In 2014 3rd International Conference on User Science and Engineering (i-USer) (pp. 253-257). IEEE.
- Hazar, M. (2011). Sosyal medya bağımlılığı-bir alan çalışması [Social media dependency-filed survey]. *Gazi University Journal of Communication Theory & Research*, (32), 151-176.
- Helman, C. G. (2001). *Culture, health and illness*. Retrieved Sembtember, 2018 from [https://www.routledge.com/Culture-Health-and-Illness-Fifth edition/Helman/p/book/9780340914502](https://www.routledge.com/Culture-Health-and-Illness-Fifth-edition/Helman/p/book/9780340914502).
- Hovardaoğlu, S. (1993). Vücut algısı ölçüği [The Appraisal of Body-Cathexis]. *Journal of Psychiatry Psychology Psychopharmacology*, 1(1), 26.
- Hu S., Liu H., & Gu J. (2018). What role does self efficacy play in developing cultural intelligence from social media usage? *Electronic Commerce Research and Applications*, 28, 172-180. <https://doi.org/10.1016/j.elerap.2018.01.009>
- Huang, H. (2016). Media use, environmental beliefs, self-efficacy, and pro-environmental behavior. *Journal of Business Research*, 69 (6), 2206-2212.<https://doi.org/10.1016/j.jbusres.2015.12.031>
- Hutchinson, M. G. (1982). Transforming body image: Your body, friend or foe. New England Association for Women in Psychology (Eds), In *Current feminist issues in psychotherapy*, (pp. 59-68). New York: Routledge.
- Jung, J., & Lee, S. H. (2006). Cross-cultural comparisons of appearance self-schema, body image, self-esteem, and dieting behavior between Korean and US women. *Family and Consumer Sciences Research Journal*, 34 (4), 350- 365. <https://doi.org/10.1177/1077727X06286419>

- Karagöz, N., & Karagün, E. (2015). Profesyonel sporcuların beden imajı üzerine betimsel bir çalışma [A descriptive study on the body image of professional athletes]. *Sport Sciences*, 10(4), 34-43. <http://dx.doi.org/10.12739/NWSA.2015.10.4.2B0102>
- Kılıç, N., Mammadov M., Koçhan K., & Aypay, A. (2018). Üniversite öğrencilerinde genel öz-yeterlik inancı ve beden imajının psikolojik sağlamlılık düzeyini yordama gücü [The predictive power of general self-efficacy beliefs and body images of university students on resilience]. *Hacettepe University Journal of Education*, 1-13. doi: 10.16986/HUJE.2018044245
- Koçak, E. (2017). *The relationship between personality traits and behaviors of Instagram users vs. non-users*. Master Thesis, Boğaziçi University, İstanbul, Turkey.
- Kumar, R., & Lal, R. (2006). The role of self-efficacy and gender difference among the adolescents. *Journal of the Indian Academy of Applied Psychology*, 32(3), 249-254.
- Luszczynska, A., Gutiérrez-Doña, B., & Schwarzer, R. (2005). General self-efficacy in various domains of human functioning: Evidence from five countries. *International journal of Psychology*, 40(2), 80-89. <https://doi.org/10.1080/00207590444000041>
- Mcleod, S. (2016). *Bandura social learning theory*. Retrieved December, 2017, from [www.simplypsychology.org/bandura.html](http://www.simplypsychology.org/bandura.html).
- Oğuz, G. Y. (2005). Bir güzellik miti olarak incelik ve kadınlarla ilgili beden形象inin televizyonda sunumu [Thinnes as a beauty myth and the representation of women's body image on Television]. *Journal of Selcuk Communication*, 4(1), 31-37.
- Yu, J. O., & Cho, Y. B. (2005). The effect of an internet community on knowledge, self-efficacy and self care behavior in workers with hypertension. *Journal of Korean Academy of Nursing*, 35(7), 1258-1267. <https://doi.org/10.4040/jkan.2005.35.7.1258>
- Ormrod, J. E. (2018). *Learning Psychology*, (Trans. Ed. Mustafa Baloğlu), Ankara: Nobel Publishing.
- Özcan, H., Subaşı, B., Budak, B., Çelik, M., Gürel, Ş. C., & Yıldız, M. (2013). Ergenlik ve genç yetişkinlik dönemindeki kadınlarda benlik saygı, sosyal görünüş kaygısı, depresyon ve anksiyete ilişkisi [Relationship between self-esteem, social appearance anxiety, depression and anxiety in adolescent and young adult women]. *Journal Of Mood Disorders*, 3(3), 107-113. <https://doi.org/10.5455/jmood.20130507015148>
- Perloff, R. M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. *Sex Roles*, 71, 363–377. <https://doi.org/10.1007/s11199-014-0384-6>
- Sarwer, D. B., & Polonsky, H. M. (2016). Body image and body contouring procedures. *Aesthetic Surgery Journal*, 36(9), 1039-1047. <https://doi.org/10.1093/asj/sjw127>
- Secord, P. F., & Jourard, S. M. (1953). The appraisal of body-cathexis: body-cathexis and the self. *Journal of consulting psychology*, 17(5), 343. doi:10.1037/h0060689
- Sepetci, N. (2017). *Collapse of perceptin of privacy in social media: A research on instagram*. Master Thesis, Marmara University, İstanbul, Turkey.
- Sherer, M., & Adams, C. H. (1983). Construct validation of the self-efficacy scale. *Psychological Reports*, 53(3), 899-902. <https://doi.org/10.2466/pr0.1983.53.3.899>
- Sherer, M., Maddux, J. E., Mercadante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: construction and validation. *Psychological Reports*, 51: 663-671. <https://doi.org/10.2466/pr0.1982.51.2.663>
- Tarhan, S. (1995). *Lise öğrencilerinin beden形象larından hoşnut olma düzeylerinin özsayıları ve akademik başarıları üzerindeki etkisi* [The effect of high school students' satisfaction with their body images on their self-esteem and academic success]. Master Thesis, Hacettepe University, Ankara, Turkey.

- Tong, Y., & Shanggui, S. (2004). A Study on general self-efficacy and subjective well-being of low SES-college students in a Chinese university. *College Students Journal*, 38 (4), 637-642.
- Uğurlu, N., & Akın, H. (2008). Muğla Sağlık Yüksekokulu öğrencilerinin beden benlik algısı ve psikolojik sıkıntı belirtileri ile ilişkisi [Relation of body-ego perception with symptoms psychological distress of Muğla university school of health students]. *Journal of Atatürk University School of Nursing*, 11(4), 38-47.
- Uğurlu, Ö. (2015). Kadının benlik sunumunun güncel bir aracı olarak sosyal ağlar bir tasarım unsuru: Kusursuzlaştırma [Actual agents of women's self presentation social networks a design factor: 'Make Glorious']. *Usak University. Journal of Social Sciences*, 8(1), 231-248.
- Uşkun, E., & Şabaplı, A. (2013). Lise öğrencilerinin beden algıları ile yeme tutumları arasındaki ilişki [The relationship between body image and eating attitudes of secondary school students]. *TAF Preventive Medicine Bulletine*, 12(5), 519-528. doi:10.5455/pmb.1-1343135122
- Yardımcı, F., & Başbakkal, Z. (2010). Ortaokul öz-yeterlilik ölçüğünün geçerlilik ve güvenilirlik çalışması [A study of validity and reliability of Middle School Self-Efficacy Scale]. *Anatolian Journal of Psychiatry*, 11, 321-326.
- Yıldırım, F., & İlhan, İ.Ö. (2010). Genel öz yeterlilik ölçüği Türkçe formunun geçerlilik ve güvenilirlik çalışması [The Validity and reliability of the general self-efficacy scale-Turkish form]. *Turkish Journal of Psychiatry*, 21(4), 301-308.

