

Adaptation of appearance-related social media consciousness scale into Turkish: A validity and reliability study on adolescents

Ali Çetinkaya¹, Ahmet Metin², Eyüp Sabır Erbiçer³ and Emine Yavuz⁴

¹Lecturer, Turkish Military Academy, Turkey, alictinkaya2094@gmail.com ORCID: <http://orcid.org/0000-0001-6029-5021>

²Res. Asst., Erciyes University, Turkey, ametin@erciyes.edu.tr ORCID: <http://orcid.org/0000-0001-6519-2523>

³Res. Asst., Hacettepe University, Turkey, eyuperbicer@gmail.com ORCID: <http://orcid.org/0000-0001-8253-7212>

⁴Res. Asst., Ph.D., Erciyes University, Turkey, emineyavuz@erciyes.edu.tr ORCID: <http://orcid.org/0000-0002-1991-1416>

Article Info

Abstract

Research Article

Received: 13 December 2021

Revised: 23 January 2022

Accepted: 24 January 2022

Keywords:

Appearance-related social
media consciousness,
Adolescents,
Turkish culture

This study aims to adapt the Appearance-Related Social Media Consciousness Scale (ASMC), developed by Choukas-Bradley et al. (2020), into Turkish and carry out validity, reliability, and standard-setting studies on adolescents. The study was conducted on 444 adolescents, 296 of whom were girls. Confirmatory factor analysis was used to determine the scale's construct validity. Correlation analysis was performed for criterion validity, and Cronbach alpha and composite reliability coefficients were calculated for reliability. Confirmatory factor analysis results showed that the scale fits perfectly. The scale showed a moderate positive correlation with social appearance anxiety, depression, anxiety, and stress. In addition, the reliability coefficients were over .90. The results indicated that ASMC has good psychometric properties.

1. Introduction

Social media are the tools where users can share their original content, play games, communicate online, spend free time, share videos and photos, and create or join online groups (Andreasen et al., 2017). The use of social media has considerably increased after smartphones have entered our lives (Erbicir, 2020; Işik & Kaptangil, 2018). According to the research conducted by Rideout & Robb (2018), in recent years, social media focusing on photo sharing has been used by adolescents too much. More than half of the adolescents check social media platforms such as Instagram and Facebook at least once an hour. The same study found that adolescents use photo-sharing social network sites more than others. According to the "Digital 2021 in Turkey" report published by "We are social" and "Hootsuite," 70.8% of Turkey's population uses social media actively (Digital 2021 in Turkey, 2021).

Social media platforms provide the opportunity to show the shared photos to a particular audience that the user allows. Individuals attach great importance to their physical appearance (Deighton-Smith & Bell, 2017). In every shared photo, social media users know to whom they can show their physical appearance or who can see their pictures. A photo shared on social media can take place on the screen of a large audience (Nesi et al., 2018a). Therefore, adolescents may engage in behaviors to appear more attractive in the photos they share on social media (Zheng et al., 2019). Adolescents make an intense cognitive and behavioral effort regarding how they appear on social media. The related concept of "appearance-related social media consciousness" (ASMC) was first introduced by Choukas-Bradley et al. (2018) and has been defined as the individual's ongoing cognitive and behavioral intensity about their appearance and attractiveness on social media (Choukas-Bradley et al., 2018).

Today, an individual's photo can be taken and uploaded to social media at any time. Therefore, they know how to show themselves better while taking a picture, and they want to have control over the photo that will be uploaded to social media beforehand. In short, individuals now tend to their body's surveillance more (Choukas-Bradley et al., 2018). Recent studies have determined that social media use has adverse effects on young people depending

* All responsibility belongs to the researchers. All parties were involved in the research of their own free will. This research has ethical approval from Erciyes University Social and Human Sciences Ethics Committee (Date: 25.05.2021; Approval: 270)

To cite this article: Çetinkaya, A., Metin, A., Erbiçer, E.S. & Yavuz, E. (2022). Adaptation of appearance-related social media consciousness scale into Turkish: A validity and reliability study on adolescents. *International Journal of Social Sciences and Education Research*, 8 (1), 63-70. DOI: <https://doi.org/10.24289/ijsser.1034318>

on how and how much (Hamilton, Nesi, & Choukas-Bradley, 2020; Hamilton, Nesi & Choukas-Bradley, 2021). The studies on adults (Fardouly et al., 2015; Manago et al., 2015) and adolescent girls (Meier & Gray, 2014; Slater & Tiggemann, 2015; Vandenbosch & Eggermont, 2012) revealed positive and significant relationships between social media use and body surveillance. In addition, there was a positive correlation between self-photographing, editing, and sharing behaviors, including body appreciation (Veldhuis et al., 2018), appearance concerns (Wang, Xie, Fardouly, Vartanian, & Lei, 2019), body dissatisfaction (Cohen, Newton-John, & Slater, 2018), body shame (Terán et al., 2020). In addition, young women compare their body appearance with their peers in social media photos. This comparison is more measurable with the likes and comments on social media (Choukas-Bradley et al., 2018; Nesi & Prinstein, 2019). This situation causes them to make a more significant effort about body comparison with their peers (Choukas-Bradley et al., 2018; Fardouly et al., 2017; Nesi et al., 2018b). Besides, individuals edit their photos before uploading them to social media. Consequently, social comparison is made with unreal and manipulated images (Fox & Vendemia, 2016; Kleemans et al., 2018). On the other hand, social appearance anxiety is a state of anxiety and tension that individuals feel for the impression of their physical appearance on others (Hart et al., 2008). Then an imaginary audience is taken into consideration, where the posts on social media could be seen by individuals (Fox et al., 2021). Individuals try to create a more effective impression on other people and look attractive (Özcan et al., 2013). From this perspective, social appearance anxiety may be related to ASMC. Individuals with high social appearance anxiety may be busier with their appearance on social media to create a better image of their bodies. The studies involving the concepts of ASMC structure showed that body esteem decreased, and depressive symptoms increased as body surveillance increased. (Calogero et al., 2011). This is also seen in social comparisons made through social media. Comparisons made on social media are associated with a lower sense of self (Vogel et al., 2014), lower body satisfaction (Fardouly et al., 2017; Hendrickse et al., 2017), and higher depressive symptoms (Nesi & Prinstein, 2015). A study conducted with adolescents reported an increase in depressive symptoms in boys and girls with the increase of the ASMC level. Besides, girls' ASMC was significantly higher than boys' (Choukas-Bradley et al., 2020). There are also studies on social appearance anxiety, which is another concept. Adolescents with high social appearance anxiety have also been found to have high depression levels (Gündüz & Sağlam, 2020). In a study conducted on adolescents and young girls, positive and significant relationships were found between social appearance anxiety and depression and anxiety (Özcan et al., 2013). All these studies show the negative effects of individuals' perspectives on their appearance on social media. Individuals think about their photos on social media, compare themselves with others, and engage in mental pre-occupation with the possible sharing of their images, even when they are offline. The ASMC (Choukas-Bradley et al., 2020) addresses this situation. However, the scale has not been adapted to Turkish culture yet. This study aims to adapt the scale developed by Choukas-Bradley et al. (2020) to Turkish culture and its validity and reliability studies. The Social Appearance Anxiety Scale (SAAS) and Depression, Anxiety, and Stress Scale (DASS-21) were used for the criterion validity of this scale.

2. Methodology

2.1. Participants

The study sample consisted of 444 students, 148 males, and 296 females, selected by convenient sampling method ($M_{age}=16.30$; $SD = 1.23$; range: 13 – 20 years). The participants' average daily social media use was 3.96 hours ($SD = 2.37$).

2.2. Screening tools

Personal Information Form. The researchers created it to collect participants' demographic information. This form included participants' gender, age, and time spent on social media (daily).

Appearance-Related Social Media Consciousness Scale (ASMC). It was developed by Choukas-Bradley et al. (2020) to determine adolescent individuals' social media awareness about appearance. The measurement tool is one-dimensional, consists of 13 items, and uses a 7-point Likert scale. The scale explains 63% of the total variance. According to the results of Confirmatory Factor Analysis (CFA), the fit indices of the scale are as follows: $X^2(149) = 581.02$, $p < .001$; CFI = .932; TLI = .929; RMSEA = .097; SRMR = .053 and the Cronbach alpha reliability coefficient is .95. There is not any study about the standard-setting of the original scale. So, a high score on the scale indicates a high level of appearance-related social media consciousness. In this study, a standard-setting study was conducted for the Turkish form of the scale.

Social Appearance Anxiety Scale (SAAS). Hart et al. (2008) developed the scale to determine adolescents' social appearance anxiety, and it was adapted into Turkish by Doğan (2011). The scale consists of a single factor

and 16 items. The single factor structure of the scale explains 42% of the total variance. According to the CFA results in Doğan's (2011) study, the fit indices of the scale were as follows: $\chi^2_{96} = 284.02$, $p < .001$; AGFI = .90; GFI = .93; CFI = .95; IFI = .95 RMSEA = .066; RMR = .038 and the Cronbach alpha reliability coefficient was .95. A high score from the scale indicates a high level of social appearance anxiety. In the current study, the fit indices of the scale according to the CFA results are as follows: $\chi^2_{104} = 339.78$, $p < .001$; AGFI = .83; GFI = .87; CFI = .99; IFI = .99 RMSEA = .072; RMR = .089 and the Cronbach alpha reliability coefficient is .94.

Depression Anxiety Stress Scale (DASS-21). DASS-21, developed by Lovinond and Lovibond (1995), evaluates individuals' depression, anxiety, and stress levels. The scale consists of 21 items and three dimensions (depression, anxiety, and stress). The validity and reliability study of the scale was performed on normal and clinical samples. The Turkish validity and reliability study of the scale was carried out by Sariçam (2018). According to the results made on a normal sample, the 3-factor scale explains 49% of the total variance. According to the CFA results in Sariçam's (2018) study, the fit indexes of the scale were as follows: $\chi^2_{210} = 1760.94$, $p < .001$; GFI = .90; CFI = .90; TLI = .89 RMSEA = .065; SRMR = .067 and the Cronbach alpha reliability coefficient of the scale was .85 for the depression subscale; .80 for anxiety subscale and .77 for stress subscale. A high score on the scale indicates a high level of depression, anxiety, and stress. In this study, the fit indices of the scale according to the CFA results are as follows: $\chi^2_{186} = 848.48$, $p < .001$; AGFI = .99; GFI = .99; CFI = .99; RMSEA = .048; RMR = .067 and the Cronbach alpha reliability coefficient of the scale is .89 for the depression subscale; .87 for anxiety subscale and .85 for stress subscale.

2.3. Procedure

Firstly, permission for the Turkish studies of the scale was obtained by contacting Sophia Choukas-Bradley (corresponding author). Subsequently, necessary permissions were obtained from Erciyes University Social and Human Sciences Ethics Committee (Date: 25.05.2021; Approval: 270). Then, the researchers translated 13 items of the scale from English to Turkish. The items were back-translated from Turkish into English, and any loss of meaning was checked. The draft of the scale was reviewed by two native speaker experts. Then, the application form was finalized by taking expert opinion. Screening tools were installed on the Google Forms platform for data collection. The form was administered to adolescents aged between 13-20 who voluntarily participated in the study. The survey (screening tools) took an average of 15 minutes.

2.4. Data analysis

In this study, Microsoft Excel 2019 was used to organize the data, Lisrel 8.80 (Jöreskog & Sörbom, 2006) for CFA and IBM SPSS 26.0 (IBM Corp., 2019) for descriptive analysis and to prove criterion validity. Before collecting evidence for criterion validity, the accuracy of the previously determined factor structures of the SAAS and DASS-21 scales was checked using CFA on the collected data (Raykoy & Marcoulides, 2000). The internal consistency of the scales was evaluated using Cronbach Alpha coefficients. The scales provided an acceptable level of model-data fit. After CFA and reliability analysis, Pearson correlation analysis was applied on ASMC, SAAS, and DASS-21 to prove criterion validity of the ASMC scale. Cohen's (1988) criteria were used to evaluate obtained correlation coefficients. Following the validation of the construct and criterion validity of the ASMC scale, Cronbach Alpha, and composite reliability (Yang & Green, 2011) coefficients were calculated to reveal the reliability of the data obtained from this scale. The reliability coefficient was above 0.70, indicating that the measurements are reliable (Salvucci et al., 1997; Tezbaşaran, 1997).

3. Results

The model-data fit values obtained from CFA, the indices used to evaluate these values, and the perfect and acceptable fit criteria of these indices are given in Table 1. Regarding Table 1, the χ^2/df value is high (5.81); it may be resulted from performing CFA in a large sample (Steiger, 1990). The RMSEA index was .10. RMSEA values above .10 indicate a poor fit in model-data fit assessments (Kline, 2011; Vieira, 2011). Therefore, other indices were also considered for model-data fit assessment. An RMR index close to zero indicates a good fit in evaluating model-data fit (Kline, 2011). In the study, the RMR was .06; a value close to zero is considered as evidence of a good model fit. In addition, the IFI, GFI, NFI, CFI, NNFI indices were in the range of perfect fit criteria. It could be said that the model-data fit is achieved because the fit indices are within the acceptable fit ranges. Figure 1 illustrates the single factor measurement model; the item loads vary between .67 and .85.

Table 1. The goodness of fit tests and measures of goodness of fit indices for ASMC

Fit criteria	The value obtained from CFA	Perfect fit	Acceptable fit
χ^2/sd	5.81	$0 \leq \chi^2/sd \leq 2$	$0 \leq \chi^2/sd \leq 5$
RMSEA	.10	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$
RMSEA Confidence interval	.094-.11		
RMR	.06		
IFI	.97	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI < .95$
GFI	.99	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI < .95$
NFI	.97	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI < .95$
CFI	.97	$.95 \leq CFI \leq 1.00$	$.90 \leq CFI < .95$
NNFI	.97	$.95 \leq NNFI \leq 1.00$	$.90 \leq NNFI < .95$

References: Bentler & Bonett, 1980; Hu & Bentler, 1999; Kline, 2011; Tabachnick & Fidell, 2012:721-724; Vieira, 2011.

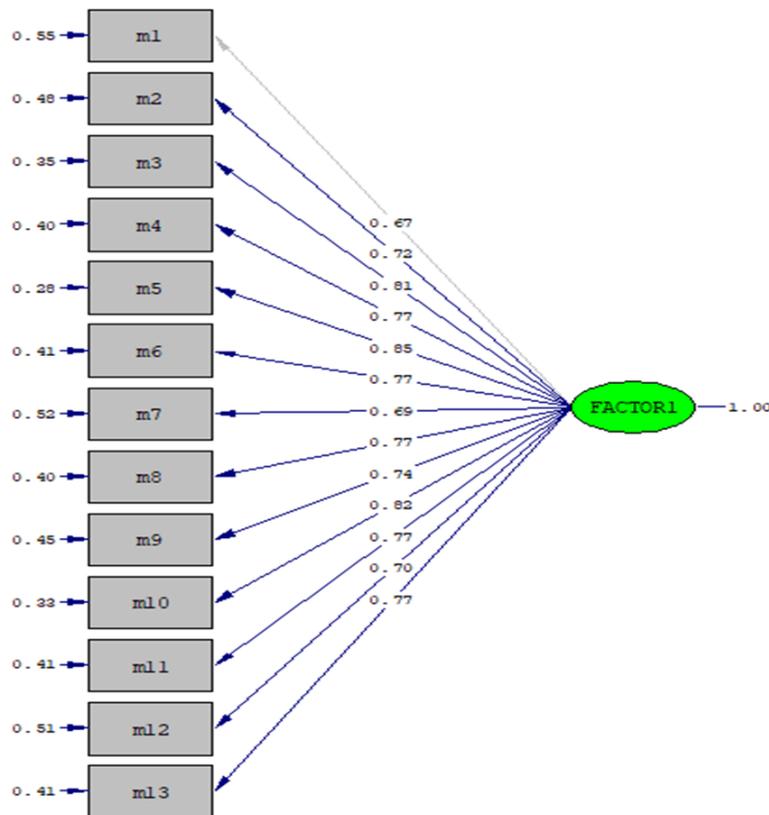


Figure 1. The single factor measurement model

After proving the construct validity of the ASMC Scale by CFA, the significance of the relationship between ASMC and SAAS and DASS-21 was examined by correlation analysis to confirm criterion validity. There is a significant moderate positive correlation between ASMC and SAAS, depression, anxiety, and stress ($p < .01$). The correlation value between ASMC and SAAS was .47; the correlation value between ASMC and depression was .33; the correlation value between ASMC and anxiety was .36; and the correlation value between ASMC and stress was .36. Based on this, it can be said that the ASMC scale provides criterion-related validity with the SAAS and DASS-21 scales. Students' average social appearance anxiety is $M = 37.14$. According to the DASS-21 scoring table, students have high anxiety and moderate depression and stress. The average students' appearance-related social media consciousness is $M = 39.88$. The Cronbach Alpha coefficient of the ASMC scale was .93, and the composite reliability coefficient was .95. Based on these figures, it can be said that the data obtained from the ASMC scale are reliable.

After collecting the necessary evidence for the reliability of the data obtained from the Turkish version of the ASMC scale and the validity of the decisions made based on these data, the standard-setting of the scale (cut-off point determination) study was started. Two-stage clustering analysis was performed on the total scale score to determine the cut-off point. As a result of the analysis, the average Silhouette coefficient = 0.70 was calculated.

The average Silhouette coefficient takes a value between -1 and +1, and the fact that this coefficient is close to 1 indicates that the clustering is done consistently (Dinh, Fujinami & Huynh, 2019). In this context, it can be said that the clustering analysis in this study was carried out consistently. As a result of the analysis, three clusters emerged, and these clusters indicate the existence of two cut-off scores. These scores are 35 and 57, respectively. Accordingly, it can be said that the social media awareness level of the students whose scores are between 13 and 34 is low. The social media awareness level of students whose scores are between 35 and 56 is medium, and the social media awareness level of the students whose scores are between 57 and 91 is high.

4. Discussion and conclusion

This study aims to adapt the Appearance-Related Social Media Consciousness Scale (ASMC), developed by Choukas-Bradley et al. (2020), into Turkish culture and conduct validity and reliability studies. Confirmatory factor analysis was performed to examine the construct validity of the scale. As a result of the analysis, the RMSEA value was .10, and the RMR value .06, whereas the other indices satisfied the perfect fit criteria. In the original scale, the RMSEA value was .10, and the SRMR value was .05. In other words, the results were close to those of the original scale. CFA results of this study revealed that the model had a good fit, similar to the original version. The correlations between ASMC and Social Appearance Anxiety Scale (SAAS) and Depression, Anxiety, and Stress Scale (DASS-21) were analyzed to determine its criterion-related validity. As a result of the analysis, positive moderate significant correlations were obtained between ASMC, SAAS, and DASS-21. These validity results indicate that the scale has good criterion validity. Besides, the reliability coefficients of ASMC are over .90. All these results about the reliability of ASMC indicate that the scores obtained from the scale are highly reliable.

The increase in the use of social media and the internet, especially with the pandemic, may increase the risk factors that adolescents may encounter (Dong et al., 2020; Öztürk & Ayaz-Alkaya, 2021; Paschke et al., 2021). Adolescents' concerns about how they appear on social media may be related to their psychological problems (e.g., depression, anxiety, and stress). Our study was conducted during the pandemic period, and adolescents' social media awareness levels are related to psychological issues supports this view. Therefore, this topic is interesting to by researcher. In this way, it is thought that this study will contribute to the Turkish literature. As a result, the ASMC adapted to Turkish culture has a 7-point Likert-type answer key where (1) indicates "Never" and (7) "Always." There is no reverse item on the scale. High scores from the one-dimensional ASMC indicate a high appearance-related social media consciousness.

The ASMC is a practical self-report type scale that is easy to administer and evaluate. The results of this study, which aimed to examine the scale's psychometric properties among Turkish adolescents, are similar to the original scale. In conclusion, the validity and reliability study of the ASMC performed on a sample of Turkish adolescents revealed that the scale is sufficient in terms of validity and reliability to evaluate appearance-related social media consciousness. Thus, ASMC could be used in studies on high school students.

4.1. Limitations, strengths, and future research

This study has some limitations. First, the participants included in the study were high school students. Therefore, these results may not be generalizable to other age groups. Validity and reliability studies should be repeated to use this scale in different age groups. Second, the participants do not cover high school students living in all regions in Turkey. This study was conducted only on adolescents living in the Central Anatolia Region. Comprehensive studies involving high school students from the other areas of Turkey could be performed. Finally, with this scale, researchers can use this scale in addition to many studies that want to determine adolescents' social media use. Third, research results are limited to the answers given by the participants to the measurement tools. Fourth, only Cronbach Alpha and composite reliability coefficients were calculated for reliability. Analyzes that should be done at different times, such as test-retest reliability, were not performed. These analyzes should be done in future studies. Despite all these limitations, ASMC seems to be an ideal measurement tool to assess Turkish adolescent Appearance-Related Social Media Consciousness.

Author contribution statements

Author contributed all to the design and implementation of the research, to the analysis of the results and to the writing of the manuscript.

Disclosure statement

No potential conflict of interest was reported by the authors.

Ethics committee approval

This research has ethical approval from Erciyes University Social and Human Sciences Ethics Committee (Date: 25.05.2021; Approval: 270). All responsibility belongs to the researchers.

References

- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors, 64*, 287-293. <https://doi.org/10.1016/j.addbeh.2016.03.006>
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588-606. <https://doi.org/10.1037/0033-2909.88.3.588>
- Calogero, R. M., Tantleff-Dunn, S., & Thompson, J. K. (2011). *Self-objectification in women: Causes, consequences, and counteractions* (1st ed.). Washington, DC: American Psychological Association. <https://doi.org/10.1037/12304-000>
- Choukas-Bradley, S., Nesi, J., Widman, L., & Higgins, M. K. (2018). Camera-ready: Young women's appearance-related social media consciousness. *Psychology of Popular Media Culture, 8*(4), 473-481. <https://doi.org/10.1037/ppm0000196>
- Choukas-Bradley, S., Nesi, J., Widman, L., & Galla, B. M. (2020). The appearance-related social media consciousness scale: Development and validation with adolescents. *Body Image, 33*, 164-174. <https://doi.org/10.1016/j.bodyim.2020.02.017>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.) Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cohen, R., Newton-John, T., & Slater, A. (2018). "Selfie"-objectification: The role of selfies in self-objectification and disordered eating in young women. *Computers in Human Behavior, 79*, 68-74. <https://doi.org/10.1016/j.chb.2017.10.027>
- Deighton-Smith, N., & Bell, B. T. (2017). Objectifying fitness: A content and thematic analysis of #Fitspiration images on social media. *Psychology of Popular Media Culture, 8*(4), 473-481. <http://dx.doi.org/10.1037/ppm0000143>
- Digital 2021 in Turkey. (2021, 25 May). Retrieved from <https://datareportal.com/reports/digital-2021-turkey>
- Doğan, T. (2011). Sosyal Görünüş Kaygısı Ölçeği'nin Psikometrik Özelliklerinin Ergenlerden Oluşan Bir Örnekleme İncelenmesi. *İlkogretim Online, 10*(1), 12-19. <http://ilkogretim-online.org.tr>
- Dong, H., Yang, F., Lu, X., & Hao, W. (2020). Internet Addiction and Related Psychological Factors Among Children and Adolescents in China During the Coronavirus Disease 2019 (COVID-19) Epidemic. *Frontiers in Psychiatry, 11*, 00751. <https://doi.org/10.3389/fpsy.2020.00751>
- Erbıçer, E.S. (2020). Siber zorbalık ve siber mağduriyetin sosyal uyuma ve bazı demografik değişkenlere göre incelenmesi. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi, 49*, 190-222. <https://doi.org/10.9779/pauefd.559831>
- Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). The mediating role of appearance comparisons in the relationship between media usage and self-objectification in young women. *Psychology of Women Quarterly, 39*, 447-457. <http://dx.doi.org/10.1177/0361684315581841>
- Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2017). The impact of appearance comparisons made through social media, traditional media, and in person in women's everyday lives. *Body Image, 20*, 31-39. <http://dx.doi.org/10.1016/j.bodyim.2016.11.002>
- Fox, J., & Vendemia, M. A. (2016). Selective self-presentation and social comparison through photographs on social networking sites. *Cyberpsychology, Behavior, and Social Networking, 19*(10), 593-600. <http://dx.doi.org/10.1089/cyber.2016.0248>
- Fox, J., Vendemia, M. A., Smith, M. A., & Brehm, N. R. (2021). Effects of taking selfies on women's self-objectification, mood, self-esteem, and social aggression toward female peers. *Body Image, 36*, 193-200. <https://doi.org/10.1016/j.bodyim.2020.11.011>
- Gündüz, B., & Sağlam, N. (2020). Ergenlerde sosyal görünüş kaygısı, ebeveyn ve akrana bağlanmanın depresyonu yordamadaki katkısı. *Trakya Üniversitesi Sosyal Bilimler Dergisi, 22*(1), 243-267. <https://doi.org/10.26468/trakyasobed.625074>
- Hamilton, J. L., Nesi, J., & Choukas-Bradley, S. (2020). Teens and social media during the COVID-19 pandemic: Staying socially connected while physically distant. <https://doi.org/10.31234/osf.io/5stx4>
- Hamilton, J. L., Nesi, J., & Choukas-Bradley, S. (2021). Reexamining social media and socioemotional well-being among adolescents through the lens of the COVID-19 pandemic: a theoretical review and directions for future research. *Perspectives on Psychological Science, 6*(1), 1-15. <https://doi.org/10.1177/17456916211014189>
- Hart, T. A., Flora, D. B., Palyo, S. A., Fresco, D. M., Holle, C., & Heimberg, R. G. (2008). Development and examination of the social appearance anxiety scale. *Assessment, 15*(1), 48-59. <https://doi.org/10.1177/1073191107306673>
- Hendrickse, J., Arpan, L. M., Clayton, R. B., & Ridgway, J. L. (2017). Instagram and college women's body image: Investigating the roles of appearance-related comparisons and intrasexual competition. *Computers in Human Behavior, 74*, 92-100. <http://dx.doi.org/10.1016/j.chb.2017.04.027>

- Hu L.T., & Bentler P.M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- IBM Corp. (2019). *IBM SPSS Statistics for Windows*. Version 22.0. Armonk, NY: IBM Corp.
- Işık, M., & Kaptangil, İ. (2018). Akıllı telefon bağımlılığının sosyal medya kullanımı ve beş faktör kişilik özelliği ile ilişkisi: üniversite öğrencileri üzerinden bir araştırma. *İtobiad: Journal of the Human & Social Science Researches*, 7(2), 695-717.
- Jöreskog, K.G. & Sörbom, D. (2006). *LISREL 8.80 for Windows*. Version 8.80. Lincolnwood, IL: Scientific Software International, Inc.
- Kleemans, M., Daalmans, S., Carbaat, I., & Anschütz, D. (2018). Picture perfect: The direct effect of manipulated Instagram photos on body image in adolescent girls. *Media Psychology*, 21, 93-110. <http://dx.doi.org/10.1080/15213269.2016.1257392>
- Kline, R. B. (2011). *Principles and practice of structural equation modeling*, (3rd ed.). The Guilford Press.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335-343. [https://doi.org/10.1016/0005-7967\(94\)00075-U](https://doi.org/10.1016/0005-7967(94)00075-U)
- Manago, A. M., Ward, L. M., Lemm, K. M., Reed, L., & Seabrook, R. (2015). Facebook involvement, objectified body consciousness, body shame, and sexual assertiveness in college women and men. *Sex Roles*, 72, 1-14. <http://dx.doi.org/10.1007/s11199-014-0441-1>
- Meier, E. P., & Gray, J. (2014). Facebook photo activity associated with body image disturbance in adolescent girls. *Cyberpsychology, Behavior, and Social Networking*, 17, 199-206. <http://dx.doi.org/10.1089/cyber.2013.0305>
- Nesi, J., Choukas-Bradley, S., & Prinstein, M. J. (2018a). Transformation of adolescent peer relations in the social media context: Part 1—A theoretical review and application to dyadic peer relationships. *Clinical Child and Family Psychology Review*. <https://doi.org/10.1007/s10567-018-0261-x>
- Nesi, J., Choukas-Bradley, S., & Prinstein, M. J. (2018b). Transformation of adolescent peer relations in the social media context: Part 2—Application to peer group processes and future directions for research. *Clinical Child and Family Psychology Review*. <https://doi.org/10.1007/s10567-018-0262-9>
- Nesi, J., & Prinstein, M. J. (2019). In search of likes: Longitudinal associations between adolescents' digital status seeking and health-risk behaviors. *Journal of Clinical Child and Adolescent Psychology*, 48, 740-748. <https://doi.org/10.1080/15374416.2018.1437733>
- Ozturk, F. O., & Ayaz-Alkaya, S. (2021). Internet addiction and psychosocial problems among adolescents during the COVID-19 pandemic: A cross-sectional study. *Archives of Psychiatric Nursing*, 35(6), 595-601. <https://doi.org/10.1016/j.apnu.2021.08.007>
- Özcan, H., Subaşı, B., Budak, B., Çelik, M., Gürel, Ş., & Yıldız, M. (2013). Ergenlik ve genç yetişkinlik dönemindeki kadınlarda benlik saygısı, sosyal görünüş kaygısı, depresyon ve anksiyete ilişkisi. *Journal Of Mood Disorders*, 3(3), 107-113. <https://doi.org/10.5455/jmood.20130507015148>
- Paschke, K., Austermann, M. I., Simon-Kutscher, K., & Thomasius, R. (2021). Adolescent gaming and social media usage before and during the COVID-19 pandemic. *Sucht*, 67(1). <https://doi.org/10.1024/0939-5911/a000694>
- Raykov, T., & Marcoulides, G. A. (2000). *A first course in structural equation modeling*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Rideout, V., & Robb, M. B. (2018). *Social media, social life: Teens reveal their experiences* Retrieved from Common Sense Media: https://www.commonsensemedia.org/sites/default/files/uploads/research/2018_cs_socialmediasociallife_executivesummary-final-release_3_lowres.pdf
- Salvucci, S., Walter, E., Conley, V., Fink, S., & Saba, M. (1997). *Measurement Error Studies at the National Center for Education Statistics*. Retrieved from <https://files.eric.ed.gov/fulltext/ED410313.pdf>
- Sarıçam, H. (2018). The psychometric properties of Turkish version of Depression Anxiety Stress Scale-21 (DASS-21) in health control and clinical samples. *Journal of Cognitive Behavioral Psychotherapy and Research* 7(1). 19-30. <https://doi.org/10.5455/JCBPR.274847>
- Slater, A., & Tiggemann, M. (2015). Media exposure, extracurricular activities, and appearance related comments as predictors of female adolescents' self-objectification. *Psychology of Women Quarterly*, 39, 375-389. <http://dx.doi.org/10.1177/0361684314554606>
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25(2), 173-180. https://doi.org/10.1207/s15327906mbr2502_4
- Tabachnick, B., & Fidell, L. (2012). *Using multivariate statistics*. Boston: Allyn and Bacon
- Terán, L., Yan, K., & Aubrey, J. S. (2020). "But first let me take a selfie": U.S. adolescent girls' selfie activities, self-objectification, imaginary audience beliefs, and appearance concerns. *Journal of Children and Media*, 14(3), 343-360. <https://doi.org/10.1080/17482798.2019.1697319>

- Tezbaşaran, A. (1997). *Likert tipi ölçek hazırlama kılavuzu*. Ankara: Türk Psikologlar Derneği.
- Yang, Y., & Green, S.B. (2011). Coefficient Alpha: A reliability coefficient for the 21st century? *Journal of Psychoeducational Assessment, 29*(4) 377-392. <https://doi.org/10.1177/0734282911406668>
- Vandenbosch, L., & Eggermont, S. (2012). Understanding sexual objectification: A comprehensive approach toward media exposure and girls' internalization of beauty ideals, self objectification, and body surveillance. *Journal of Communication, 62*, 869-887. <http://dx.doi.org/10.1111/j.1460-2466.2012.01667.x>
- Veldhuis, J., Allewa, J. M., Bij de Vaate, A. J. D. N., Keijer, M., & Konijn, E. A. (2018). Me, my selfie, and I: The relations between selfie behaviors, body image, self-objectification, and self-esteem in young women. *Psychology of Popular Media Culture, 9*, 3–13. <https://doi.org/10.1037/ppm0000206>
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture, 3*(4), 206-222. <http://dx.doi.org/10.1037/ppm0000047>
- Vieira, A. L. (2011). *Interactive LISREL in practice*. Heidelberg: Springer.
- Wang, Y., Xie, X., Fardouly, J., Vartanian, L. R., & Lei, L. (2019). The longitudinal and reciprocal relationships between selfie-related behaviors and self-objectification and appearance concerns among adolescents. *New Media & Society, 21*(10), 1989-2007. <https://doi.org/10.1177/1461444819894346>
- Zheng, D., Ni, X., & Luo, Y. (2019). Selfie posting on social networking sites and female adolescents' self-objectification: The moderating role of imaginary audience ideation. *Sex Roles, 80*(5-6), 325–331. <http://dx.doi.org/10.1007/s11199-018-0937-1>