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Smartphone Addiction and Social Appearance Anxiety as Predictors of Junior High Students' Need to Make a Good Impression[*]

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Abstract
The aim of the present study is to investigate the relative contribution of smartphone addiction and social appearance anxiety as well as age and gender in predicting early adolescents' need to make a good impression. 382 students (50% girls) from two junior high schools answered the Smartphone Addiction Scale-Short Version, the Social Appearance Anxiety Scale and the Need for Social Approval Scale. As a result of the regression analysis, age, gender, smartphone addiction and social appearance anxiety contributed significantly to explain 38% of the variance in adolescents' need to make a good impression. Social appearance anxiety was found to be the strongest predictor of the need to make a positive impression in early adolescents. A moderate positive relationship was found between smartphone addiction and the need to leave a positive impression. While age was negatively related to the need to make a good impression, girls were found to have a higher need to make a good impression than boys. Examining the model with regression diagnostics, it was concluded that it is a reliable model that can be generalized to the population.

Keywords: Smartphone Addiction, Social Appearance Anxiety, Need for Social Approval, Need to Make a Good Impression, Early Adolescence

1. Introduction

Baumeister and Leary (1995) defined the need for belonging, which is the basic interpersonal motive caused a great deal of human behavior, emotion, and thought as the avoidance of rejection by others and need for temporally stable, affectively pleasant interactions with others. It is thought that this motive provides the survival and reproductive benefits in the evolution of the human species by creating social relations and groups. Baumeister and Leary stated that people's need to belong must be met for their psychological and physical well-being, otherwise their emotional patterns and cognitive processes would be negatively affected, and in the case of a

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possible long-term deprivation, a great deal of negative effects are seen on the well-being, health and harmony of the person.

Baumeister and Leary (1995) claimed that people want to belong to a group to meet their needs such as power, achievement, intimacy, approval, or they are motivated by these needs to belong to a group. Approval is a prerequisite for a person to establish and maintain social relationships, so that the person can meet the need for belongingness through the relationships he/she establishes. Therefore, approval is a key concept for the need for belongingess. Leary and Kowalski (1995) stated that while meeting the need for belongingness, people are mindful of leaving a positive impression on the other. It is also expressed as impression management, which is being mindful to how others see the individual and how the individual wants to show him/herself to others (Leary & Kowalski, 1995; Schlenker & Pontari, 2000). Schlenker and Pontari (2000), Hogan (1982) suggested that in real or imagined social interactions, impression management can be conscious or unconscious attempt to control the image that is perceived by others.

Investigational studies in the literature reveal that social anxiety plays an important role in impression management (Di Blasi et al, 2015; Schlenker & Leary, 1982; Snyder & Monson, 1975). Although Leary, Kowalski and Campbell (1988) stated that people occasionally experienced anxiety in their social interactions, they emphasized that there were individual differences in the frequency and intensity of experiencing social anxiety. Many studies have been reported that individuals with high social anxiety tend to think that they have more anxiety about making a positive impression than others and that they leave less positive impression on others after the interaction (Greenberg, Pyszczynski, & Stine, 1985; Leary et al., 1988).

Brooks-Gunn and Lewis (1984) suggested that self-awareness begins to emerge in children around the age of 18 months.   In the preschool period, a child realizes the theory of mind, in other words, that the wishes, thoughts and feelings of others may be different from himself/herself and may change over time (Wellman, 2018). However, the capacity to make temporal and causal connections develops during late childhood and becomes more holistic and complex in adolescence. Thus, adolescents become proficient in complex temporal and perspective-based reasoning. They understand that experiences are not independent from each other, but are interconnected and that these events are effective in the transformation of themselves into who they are currently (Habermas, 2011). In addition to the cognitive skills acquired in this period, rapid and significant bodily changes become important for the adolescent to know him/herself and to make sense of his/her life. Rapid and significant changes in the body make the adolescent worry about his/her physical appearance, and excessive interest may cause him/her to fear situations where his/her physical appearance (body and face shape, weight, height) may be negatively evaluated by others after a while (Hart et al., 1989, 2008).

According to the self-presentation theory, self-presentation is defined as the behavior of conveying some information or images about oneself to others. Baumeister and Hutton (1987) stated that there were situational factors as well as stable personality-related factors underlying self-presentation behavior. The presence of evaluative others and the presence of others who may have knowledge about the person's behavior are effective in motivating the person to self-presentation behavior. Two types of self-presentation motives have been identified: 1. One's self-presentation in accordance with the expectations and preferences of the audience, 2. One's self-presentation in accordance with one's own ideal self (pp.71-72). Hogan (1982) stated that self-presentational motivations derive from two basic needs as status and power. Eder (1985) and Harter (1990) have shown that students' concerns about popularity increase after they enter secondary school.

Social appearance anxiety seems to be related to the need to make a positive impression on others and is probably reinforced by the perception of one's own inadequacies to achieve this goal (Boursier & Gioia, 2020). Thus, the adolescent may become addicted to drugs such as tobacco, alcohol and illegal and prescription drugs to leave a positive impression on others. Such addictions can increase their self-confidence by helping the adolescent to look cool and at the same time feel more comfortable during social relationships after using these drugs. Thus, adolescent can use these drugs to calm her/his social anxiety (O'Callaghan & Doyle, 2001). In addition to drug addiction, behavioral addictions are also used to reduce social anxiety and create a positive impression. Internet addiction is one of the most researched behavioral addictions in the last two decades (Pan, Chiu, & Lin, 2020).

Since the beginning of the second millennium, with the rapid spread of the internet, virtual contexts as well as physical contexts have increasingly become the channels that people use to socialize. Social media is defined as a computer-based technology that facilitates the exchange of information and ideas, thoughts, and information among people through virtual networks and communities (Dollarhide, 2021, p.1). Social media creates an interactive environment by enabling people to share their thoughts, interests and activities through online chats and to receive and give feedback. After a while, these behaviors may become a habit or addiction. From this viewpoint, social media addiction can be defined as the compulsive overuse of a person by preferring surfing the social media to other activities (Zivnuska et al., 2019).

The mobile phones could do a few things which including calls and text messages in the first days of their release, shortly after internet technology integrated into them. Smartphones, which have progressed by incorporating new functions in the last two decades, have become a critical part of individuals' daily lives as they are easy to carry and multifunctional (Tocci, 2019). According to the reports of the Turkish Statistical Institute (TURKSTAT, 2013, 2021) on adolescents for aged 11–15 years, the proportion of males who own a smartphone increased 26% in 2013 to 57.7% in 2021. The proportion of females who own a smartphone increased from 21.9% in 2013 to 53.1% in 2021. The proportion of children who use smartphones regularly and check their smartphones every half hour is 43.5%. TURKSTAT (2021) reported that 81% of adolescents use social media almost every day and spend close to three hours on average. These findings show that half of the them have a smartphone, nearly half of the them check the phone every half hour, and most of the them use social media for an average of three hours a day during the day. Many studies indicate that the use of phone applications (such as instagram, facebook, whatsapp) is a key factor in the development of smartphone addiction in adolescents (Liu et al., 2016; Yang et al., 2022).

Boursier, Gioia and Griffiths (2020) revealed that problematic social media use is associated with body image. Considering that smartphones are the most frequently used tools for regulating and maintaining people's social relationships in a virtual environment, we can expand our understanding of the temporal impacts on adolescence by examining the effects of addiction to these tools and social appearance anxiety on early adolescents' self-presentation. The present study explores the predictive effects of social appearance anxiety and smartphone addiction on the need for social approval and its subscales (sensitivity to others' judgments, social withdrawal, and leaving a good impression) in early adolescents.

2. Methodology

2.1. Participants

The sample of the study consisted of 382 students (50% girls, 42% grade 7, $\underline{x}_{age} = 13.39,\ sd = .49$) who stated that they had a smartphone among 476 students selected by convenience sampling among the grades 7 and 8 students in two junior high schools in Konya, Turkey in the 2021–2022 academic year.

2.2. Measures

In this study, the Smartphone Addiction Scale-Short Version, Social Appearance Anxiety Scale and Need for Social Approval Scale were used as data collection tools.

2.2.1. Smartphone Addiction Scale-Short Version (SAS-SV): Smartphone Addiction Scale, a 33-item self-report measure, developed by Kwon and colleagues (2013a), was revised by Kwon and colleagues (2013b) and was abbreviated as 10 items. The measure utilizes a six-point Likert scale response format ranging from "1" (strongly disagree) to "6" (strongly agree). Şata and Karip (2017) translated and validated SAS-SV in Turkish. The Cronbach alpha internal consistency coefficient of the scale is .90. The cut-off score of the scale was 29.5 (Şata & Karip, 2017).

2.2.2. Social Appearance Anxiety Scale (SAAS): The original scale was developed by Hart et al. (2008) to measure the anxiety of being negatively evaluated by others because of one's overall appearance with 16 items. The measure utilizes a five-point Likert scale response format ranging from "1" (not at all) to "5" (extremely). Doğan

(2009, 2011) translated and validated in Turkish with his study on university students and adolescents. The Cronbach alpha internal consistency coefficient of the scale was found to be .91 and the test-retest reliability coefficient to be .80 (Doğan, 2011).

2.2.3. Need for Social Approval Scale (NSAS): NSAS was developed by Karaşar and Öğülmüş (2016) to measure the need for the approval of others with 25 items. The measure utilizes a five-point Likert scale response format ranging from "1" (Strongly disagree) to "5" (Strongly agree). The 25 items are arranged into three subscales: Sensitivity to Others' Judgments, Social Withdrawal, and Leaving a Good Impression. The Cronbach alpha internal consistency coefficient of the scale for which study was conducted on adolescents was found to be .91, and the test-retest reliability coefficient was found to be .90. The internal consistency coefficients of the three subscales were: .81 for Sensitivity to Others' Judgments, .78 for Social Withdrawal, and .81 for Leaving a Good Impression (Karaşar & Öğülmüş, 2020).

2.3. Research Design

The researchers used a cross-sectional survey design to examine the predictive relationships between gender, social appearance anxiety, internet addiction, and the need for social approval in early adolescents.

2.4. Procedures

The present study was conducted in accordance with the Declaration of Helsinki. During the data collection process, in classrooms the third author had read the Informed Consent Form, which included simple explanations about the purpose of the research, data analysis method, confidentiality and volunteering statements to participate in this study, and she collected data on students who agreed to participate. Data were analyzed with R software (version 4.1.1, R Core Team, 2021).

3. Results

Internal consistency of the scales, descriptive statistics and correlations between the SAS-SV, SAAS, NSAS are presented in Table 1.

Table 1: Correlation matrix and descriptive statistics for study variables

	1	2	3	4	5	6	7	8
1 **Gender**		-.10	.09	.11	.12	.03	.07	.19
2 **Age**	.04		.03	-.05	-.09	-.06	-.04	-.12
3 **Smartphone addiction**	.08	.60		.31	.22	.02	.24	.30
4 **Social appearance anxiety**	.03	.32	<.001		.55	.30	.52	.58
5 **Need for social approval**	.02	.09	<.001	<.001		.80	.84	.87
6 Sensitivity to others' judgments	.52	.26	.63	<.001	<.001		.48	.52
7 Social withdrawal	.17	.47	<.001	<.001	<.001	<.001		.67
8 Leaving a good impression	.002	.02	<.001	<.001	<.001	<.001	<.001	
$\underline{x}$	-	13.39	28.74	41.07	80.66	32.08	23.05	25.54
sd	-	0.49	10.38	15.87	16.67	6.84	6.36	6.68

α	-	-	.84	.93	.88	.79	.73	.79

Note. Values in the top right are correlation coefficients, bottom left are p-values.

While gender (0=Male, 1=Female) was not correlated with smartphone addiction, it was positively correlated with social appearance anxiety and need for social approval. Sensitivity to others' judgments and social withdrawal were not correlated with gender, whereas leaving a good impression was weakly positively correlated with gender. While age was not correlated with variables other than leaving a good impression, it was weakly negatively correlated with leaving a good impression.

Smartphone addiction was weakly positively correlated with the need for social approval, and moderately positively correlated with social appearance anxiety. While smartphone addiction was not correlated with sensitivity to others' judgments, it was weakly and positively correlated with social withdrawal and moderately positively correlated with leaving a good impression. The need for social approval was highly positively correlated with social appearance anxiety.

The mean of the scores for the smartphone addiction was 28.74, which is below the cut-off score of 29.5 derived by Şata and Karip (2017). The mean of the need for social approval was 80.66, which is above high school students' mean of 71.44 derived by Karaşar and Öğülmüş (2020). The mean of the social appearance anxiety was 41.07, which is above high school students' mean of 36.61 derived by Akarsu and Demirpençe (2022).

In the first regression model, age, gender, smartphone addiction and social appearance anxiety were included as predictive variables and analyzed. The Rainbow test (Krämer & Sonnberger, 1986; Utts, 1982) was used to examine whether the model met the linearity assumption. Upon understanding that the model was not linear (F [238,235] =1.56, p <.001), three different models were established and tested for their linearity, namely, sensitivity to others' judgments, social withdrawal and leaving a good impression, which are subscales of the need for social approval scale. Only the "need to make a good impression" model met the linearity assumption (F [238,232] = 1.01, p>.05) as well as the other assumptions.

Table 2: Regression Coefficients of Age, Gender, Smartphone Addiction and Social Appearance Anxiety on Leaving a Good Impression

	ΔR^2	B	SE	β	t	p	95%CI
	.38						
(Intercept)		29.93	7.59		3.94	<.001	[15, 44.86]
Age		-1.23	0.56	-.09	-2.20	<.05	[-2.34,-0.13]
Gender[a]		1.46	0.55	.11	2.64	<.01	[0.37, 2.54]
Smartphone Addiction		0.08	0.03	.13	3.03	<.01	[0.03, 0.14]
Social Appearance Anxiety		0.23	0.02	.52	12.12	<.001	[0.18, 0.26]

Note. N= 382. Adjusted R^2 = .37. CI=Confidence Interval.
[a] 0=Male, 1=Female.

According to the multiple regression analysis results given in Table 2, age, gender, smartphone addiction and social appearance anxiety explain 38% of the variance in the need to make a good impression (F [4, 377] = 56.44, p<.001). Beta values indicate that smartphone addiction and social appearance anxiety are positively related to the need to make a good impression. Smartphone addiction increases by one standard deviation, the need to make a good impression increases by 0.13 standard deviations. Social appearance anxiety increases by one standard deviation, the need to make a good impression increases by 0.52 standard deviations. Age increases by one standard deviation, the need to make a good impression decreases by 0.09 standard deviations. Older students have less need to make a good impression than younger ones (β=-0.09; t=-2.2, p<.05). Girls have need to make a positive impression higher than boys (β=0.11, t=2.64, p<.05).

The model was examined with diagnostic tests to determine whether it was generalizable to the population. It was confirmed that 95% of the standardized errors of the cases were between +2 and -2. Since the values of Cook's distance were all under 1, none of the cases was having undue influence on the model (0–0.03). The

homokedasticity assumption was confirmed by the Breusch-Pagan test (LM [4] = 3.57, p>.05; Breusch & Pagan, 1979, also see Figure 1). The variance inflation factor values ranged from 1.15 to 1.02, so there was no multicollinearity problem. The assumption of independent errors was validated using the Durbin-Watson test (DW = 1.82, p>.05). The Q-Q plot and the scatter plot of the fitted values against studentized residuals were examined to see if the assumption of random errors has been met. Except for a few extreme values deviating from the line in the Q-Q plot, we could say that residuals distributed normally. In the scatter plot, the residuals did not take a certain shape around the estimated regression line and are randomly distributed (see Figure 1, Figure 2).
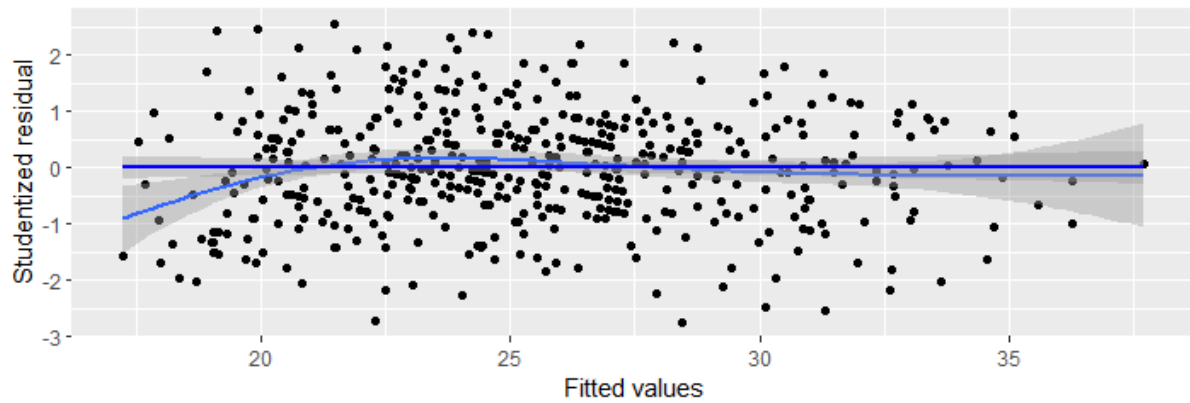

Figure 1: Scatterplot of residuals against fitted values for the need to make a good impression model
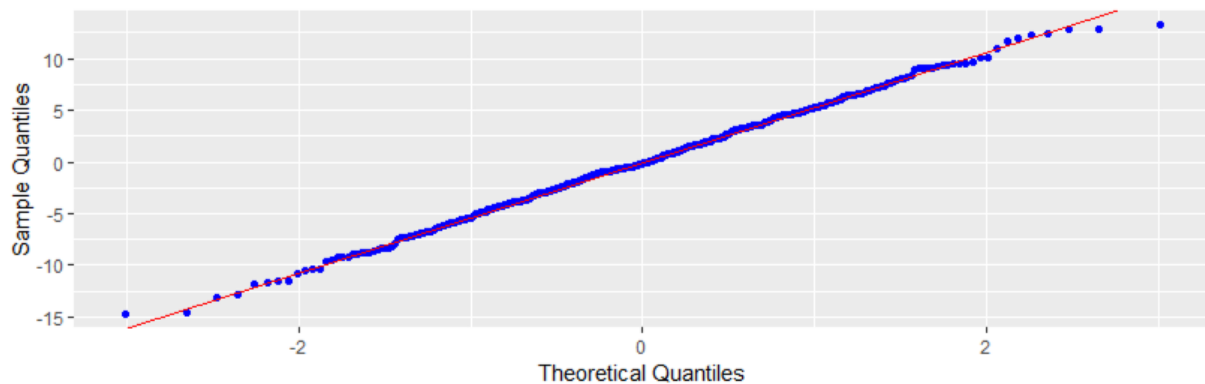

Figure 2: Q-Q plot for the need to make a good impression model

4. Discussion and Conclusion

We could summarize by saying that junior high students' need to make a good impression regression model is a reliable model that can be generalized to the population. However, the fact that the leaving a good impression subscale consists of defensive and avoidant items and does not include active approval-seeking behaviors limit the usability of the model (see Martin & Greenstein, 1983, p.652).

The need for social approval and social appearance anxiety of the junior high school students in the study were higher than the studies conducted on high school students using the same scales (see Akarsu & Demirpençe, 2022; Karaşar & Öğülmüş, 2020). In the regression model, the need to make a good impression decreases as the age increases. Eder and Harter found that students' concerns about popularity increase after they enter secondary school (Eder, 1985; Harter, 1990). According to Berndt (2002), belonging to a popular group becomes very important, especially in early adolescence. Roscoe, Diana and Brooks (1987), in their study on early (6th grades), middle (11th grades), and late (college students) adolescents' partner selection, found that while early and middle adolescents choose romantic partners to meet their social status needs and gain the approval of others, late adolescents choose romantic partners considering reciprocity in relationships and potential partners' future plans. Self-construction motives (to match one's self-presentation to one's own ideal self) seem to replace audience-pleasing motives with age (Baumeister & Hutton, 1987, p.70).

It has been found that the most important predictor of the need to make a good impression is social appearance anxiety. Social appearance anxiety of individuals is directly related to their physical appearance (Cash & Fleming, 2002), as well as their own beliefs and judgments of others (Leary & Kowalski, 1995). According to Andreassen and colleagues (2017), making a good impression includes the emotions experienced in interpersonal relationships, a person's fear of being socially excluded may result in spending his/her time on social media frequently. In the present study, smartphone addiction in early adolescents contributed significantly to explaining the need to make a good impression. In parallel with this finding, several studies showed that there was a strong positive relationship between self-presentation or body image control and frequency of social media use (Boursier & Manna, 2019; Gioia et al., 2020). Doğan and Çolak (2016) draw attention to the fact that adolescents with high social appearance anxiety can express themselves more easily by choosing social media rather than physical-social environments (also see Ayar et al., 2018; Baltacı et al., 2021; Brown & Tiggemann, 2016; Holland & Tiggemann, 2016).

The model shows that girls have a higher need to make a good impression than boys (Chae, 2017; Nelson, 2013; Senft & Baym, 2015; Warfield, 2014). Eder (1985) found that girls in early adolescence have a greater desire to be loved than they want to be academically successful. Many studies in the literature point out that social appearance anxiety is experienced more frequently by women (Burkley et al., 2014; Dakanalis et al., 2016; Zimmer-Gembeck et al., 2018). Considering of gender stereotypes, we would say that the role of being relational and being dependent on important others attributed to women can explain the need to make a good impression for girls (Haines et al., 2016).

Social media addiction is more common in young people (Andreassen, 2015; Andreassen et al., 2017; Traş & Öztemel, 2019). According to Griffiths (2010), the younger "digital native" generation growing up with information and communication technologies uses social media to seek feedback on their actions and online personas as a way of developing and maintaining relationships as well as developing and shaping their social identities. Rudd and Lennon (2000) draw attention to the fact that adolescents always face same typical identity crises, but that body image is increasingly at the center of this crisis. School counselors' awareness of the relationship between adolescents' social media use and body image will contribute to provide better counseling services to early and middle adolescents. Conducting studies on the digital self-images produced by adolescents in social media will expand our understanding of the nature of the phenomenon. Finally, adolescents can be encouraged to use social media more consciously by providing training on real body image, culturally and chronologically promoted body standards at school (Gioia et al., 2020).

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