SOCIODEMOGRAPHIC VARIABLES IN RELATION TO SOCIAL APPEARANCE ANXIETY IN ADOLESCENTS

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Abstract
This study examined the effects of gender, age, grade level, and the educational level of the mother and father on social appearance anxiety in Turkish adolescents. This was a cross-sectional study in which a simple random sampling method was used. Participants were 2,219 adolescents (1089 boys, 1130 girls) with a mean age of 12.76 years old (SD=.96) from the 6th, 7th, and 8th grades and recruited from twenty-one state secondary schools and one private secondary school in Amasya. The Social Appearance Anxiety Scale (Hart et al., 2008) and Sociodemographic Information Form were used as data collection instruments. Five hypotheses were tested in this study. Results showed that gender and age did not produce any significant differences in social appearance anxiety scores. There were, however, significant differences in social appearance anxiety scores in relation to the grade level of the adolescents and the educational level of their parents. Some surprising results are contrary to those reported in Western adolescents which means that culture may play an important role in the development of social appearance anxiety in adolescents.

Keywords: Social Appearance Anxiety, Adolescents, Sociodemographic Variables, Turkey.

Introduction
Over nearly four decades, a vast quantity of research has shown that good-looking people have many advantages in life. They benefit from their appearance in interpersonal, social, and work-related areas of their lives (Heilman & Stopeck, 1985). They earn more than average people who are considered to be less attractive (Hamermesh & Biddle, 1993), they are more socially desirable (Dion, Berscheid, & Walster, 1972) and treated better (Langlois et al., 2010). They are also more popular among friends, less lonely, more socially skilled, and more sexually experienced than plain people (Feingold, 1992).

These striking research results prompted a growing interest in physical appearance in both Western and non-Western people known in psychological literature as ‘body image’. Body image is a multidimensional construct consisting of affective, cognitive and behavioral components (Ah-Kion, 2006; Banfield & McCabe, 2002; Cash & Brown, 1987). Although there is no consensus about the definition of body image, Grogan (2008) refers to body image as a person’s perception, thoughts, and feelings about his or her body. Individuals with positive a body image have positive attitudes towards their overall physical appearance. Individuals with negative body image have negative attitudes towards their body and physical appearance. People are motivated to make a positive impact on others, but some are concerned about how their physical appearance is perceived by others.

In the literature, Social Physique Anxiety is defined as feeling discomfort during a physique evaluation (Hart, Leary, & Rejeski, 1989; Yaman et al., 2008). According to Hart et al. (2008), Social Appearance Anxiety is a more general concept including social physique anxiety and the result of negative body image and fears about negative evaluations by others. When they offered this new psychological construct, they also developed a scale called the Social Appearance Anxiety Scale (SAAS). In their initial psychometric examination, using three large university student samples, they found that the SAAS has a unifactorial structure with high test-retest reliability and internal consistency. Individuals with a high level of social appearance anxiety also exhibited a high level of social physique anxiety, fear of negative evaluation, and social interaction anxiety,
whereas those with a moderate level showed ideal-actual discrepancy in bodily appearance, a preoccupation with being overweight, depression and dysfunctional beliefs about appearance in this study (Hart et al., 2008).

After this study by Hart et al. (2008), other researchers also investigated this new scale to see whether their factor structure and also the convergent and divergent validity would replicate in other samples or not. One of these studies was conducted by Levinson and Rodebaugh (2011) on two different samples and thoroughly examined its convergent and divergent validity and reliability. This study replicated the findings of Hart et al. (2008) and showed that SAAS is a valid and reliable measure of social appearance anxiety. SAAS also demonstrated cross-cultural validity in both normal (Doğan, 2010, 2011) and clinical samples (Claes et al., 2012). However, these studies only investigated SAAS’s validity and reliability.

Other studies also examined social appearance anxiety and tried to conceptualize this new construct as a moderator or mediator construct between social anxiety and body image. For example, Levinson, Fernandes, and Rodebaugh (2011) revealed that social appearance anxiety mediates the relationship between loneliness and body satisfaction. Further studies have begun to explore other factors associated with social appearance anxiety. For example, Kang, Johnson, and Kim (2013) have revealed that individuals with a high level of perfectionism experience high levels of social appearance anxiety and social appearance anxiety is associated with neuroticism. Koskina, Van den Eynde, Meisel, Campbell, and Schmidt (2011) compared 30 women with bulimia nervosa with 40 healthy women. They found that woman with bulimia nervosa had significantly higher social appearance anxiety than healthy woman. Levinson and Rodebaugh (2012) have shown that social appearance anxiety predicts body dissatisfaction, bulimic symptoms, and concerns about body shape, weight, and eating. Similarly, Levinson and Rodebaugh (2010) also proved that social appearance anxiety is a unique predictor of body dissatisfaction.

However these studies were generally conducted with undergraduate students and adults. There is a body of literature that suggests that adolescence is a critical period in the life of an individual. At this distressing time, adolescents face daunting developmental tasks such as establishing an identity, accepting changing physical characteristics, learning skills for a healthy lifestyle, separating from family, developing morals and values, becoming a contributing member of society, and selecting a vocation (Andersen & Olnhausen, 1999).

Rapid physical, social and emotional changes that occur in adolescents may result in negative effects on the establishment of a healthy body image. Adolescents failing to develop a healthy body image are at risk of psychological disorders such as low self-esteem, depression, eating disorders, body dysmorphic disorder and social phobia. Therefore, it is important for adolescents to develop a healthy body image. Additionally, although some studies have investigated the relationship between social appearance anxiety and some sociodemographic variables such as gender (Çelik, 2013; Ko, 2010; Levinson, Rodebaugh, & Fernandes, 2009) and country (Ko, 2010), these studies analyzed only a small numbers of variables.

This study examines social appearance anxiety in a large adolescent sample with a number of sociodemographic variables. Research on factors that influence risk and those that prevent adolescents from forming a negative body image and a high level of social appearance anxiety may assist in the development of programs for prevention and/or intervention (Shroff & Thompson, 2006). Furthermore, there are no studies about this topic that center on Turkey as a Mediterranean country, which forms a bridge between Europe and Asia, not only geographically but also culturally (Canpolat, Orsel, Akdemir, & Ozbay, 2005). This study examines the effects of gender, age, grade level, mother’s educational level and father’s educational level on social appearance anxiety in Turkish adolescents.

The following hypotheses are tested in this study: a) adolescent girls would have significantly higher social appearance anxiety than adolescent boys; b) adolescents’ social appearance anxiety would significantly differ according to grade level; c) adolescents’ social appearance anxiety wouldn’t significantly differ according to age; d) if the educational level of the mother increases, adolescents’ social appearance anxiety would decrease; e) if the educational level of the father increases, adolescents’ social appearance anxiety would decrease.
Method

Participants

This research was a cross-sectional school-based study in which a simple random sampling method was used. A total of 2,866 adolescents participated in the study. There were 644 adolescents removed as a result of incomplete data. 3 students were also excluded during the preliminary data analysis.

A final sample consisted of 2,219 adolescents (1089 boys, 1130 girls) with a mean age of 12.76 (SD= .96) from the 6th, 7th, and 8th grades and recruited from twenty-one co-educational state secondary schools and one co-educational private secondary school from Merzifon town in Amasya Province. The town of Merzifon is a highly populated district which is located in the central Black Sea region of Turkey. Participants were from low, middle and high income families. The response rate was approximately 74%.

Measures

Sociodemographic Information Form:
On this form, participants were asked to provide information about their school name, gender, age, grade level, mother’s educational level and father’s educational level.

Social Appearance Anxiety Scale (SAAS) (Hart, Flora, Palyo, Fresco, Holle, & Heimberg, 2008): The SAAS is a self-evaluation scale which consists of sixteen items. Participants rate themselves using a five-point scale ranging from 1 (not at all) to 5 (extremely). Item 1 is reverse-coded. Others are straightforward. Higher scores indicate a higher level of social appearance anxiety. Adaptation studies were conducted in Turkey by Doğan (2010, 2011) both on university students and adolescents. In these studies, Doğan (2010, 2011) reported excellent internal consistency and good convergent and divergent validity. For this study, the internal consistency coefficient was α = .91. Example statements from the SAAS are “I am frequently afraid I would not meet others’ standards of how I should look.” “I get nervous when talking to people because of the way I look.”

Procedure

Approval to undertake the study was obtained from the Merzifon Directorate of National Education. Before the data collection, principals or vice principals were informed about the study and administration date and also took information about the number of students for each class. The questionnaire was prepared before administration for each class. A short meeting was held with teachers before the administration of the study and during which detailed information was given about the study. After the meeting, the questionnaires were delivered to the teachers. The questionnaires were taken by students and were completed anonymously during class time under the supervision of teachers. Informed consent was obtained from all participants with a short information form about the study.

Ethical considerations of the study including anonymity, voluntary participation and confidentiality were clearly assured in the short information form. The questionnaires took about 30 minutes to complete. Completed questionnaires were received by the first author. Data collection was carried out between December 2011 and March 2012. All statistical analyses were undertaken by IBM SPSS Statistic for Windows Version 20. Outliers and missing values were checked. 644 participants were excluded from the study due to missing data. Social Appearance Anxiety scores were converted to standardized z-scores. Participants’ z-scores that were greater than +3 or smaller than -3 were also excluded from the analyses (Field, 2009). There were 3 participants in this situation.

Before conducting statistical tests, we also checked frequencies of variables. Due to the insufficient sample sizes, we grouped mother’s and father’s educational variables into five groups. Independent samples t-test and one-way analysis of variance (ANOVA) were the statistical methods used. Normality assumption was tested with using graphical approaches. Histograms, normal Q-Q plots and box plot graphics revealed that the data was approximately normal. The homogeneity of variances was controlled with Levene’s test. Homogeneity of variance assumption was met for all analyses except for independent samples t-test. In this analysis, we used t-test row of results labeled Equal variances not assumed. Anova post-hoc comparisons were performed using the conservative Scheffe test.

All results were accompanied by effect size estimates. Standardized effect sizes such as Cohen’s d are the most appropriate when two groups are being compared. Measures of variance accounted for (e.g. $R^2$, $\omega^2$, $\eta^2$) are the most appropriate when more than
two groups are involved (Velicer, Redding, Sun, & Prochaska, 2007). Cohen’s (1988, 1992) guidelines were used to interpret the obtained effect size. According to Cohen (1988, 1992), for d, .20 or below is a small effect size, around .50 is a moderate effect size and .80 or above is a large effect size. For eta-square (η²), .01 or below is a small effect size, around .06 is a moderate effect size and .14 or above is a large effect size (Cohen, 1988). A significance level of .05 was accepted for all analyses.

Results

Table 1 shows the number of participants, percentages, SAAS means and standard deviations (SD) according to gender, grade level, age, mother’s educational level and father’s educational level. As seen Table 1, 51% of our samples were female, 32.1% were in grade 8, 23% were 14 years old. The mother’s education level of our sample was low. 56.4% of adolescents’ mothers were primary school graduates. 27.2% of adolescents’ fathers were high school graduates. This ratio also reflects the current average educational level of people in Turkey. According to the Turkish Statistical Institute Address Based Population Registration System (ABPRS) 2012 year results, 47.24 % of the Turkish population has a primary educational level or below (Turkish Statistical Institute, 2013).

INSERT TABLE 1 HERE.

In order to examine gender differences in SAAS scores, we conducted an independent samples t-test. There were no significant difference in scores for males (M = 35.41, SD = 13.27) and females (M = 35.59, SD = 14.32; t (2213.64) = .748, p > .05, one-tailed, d=.01).

A series of one-way ANOVAs were conducted to identify any significant differences in grade level, age, mother’s and father’s educational level subgroups in SAAS scores. There was a statistically significant difference in grade level (F (2, 2216) =3.186, p < .05 , η²=.003). However, the effect size was quite small. Our findings only explained 0.3 % of the total variance in SAAS scores. Post-hoc comparisons using the Scheffe test revealed no significant differences among grade level SAAS scores. There was no statistically significant difference among age groups (F (4, 2214) =1.129, p > .05, η²=.002). The ANOVA results showed statistically significant difference between the SAAS scores of individuals, depending on the mother’s education level (F(4,2214) = 3.244, p < .05 , η²=.006). However, the effect size was small again, explaining only 6% of the variance in the scores, and a post-hoc Scheffe test revealed no significant differences among the scores of the five mother education groups. The ANOVA results also demonstrated a statistically significant difference in the SAAS scores of the five father education groups (F(4,2214) = 7.605, p < .05, η²=.013). The effect size was small, explaining only 1.3% of the variance in the data. However, post-hoc Scheffe comparisons showed that the SAAS scores of adolescents whose fathers graduated only from primary school or below (M = 37.34, SD = 14.16) were significantly higher than those of adolescents whose fathers had graduated from junior college (M = 31.87, SD = 12.71) or with a Bachelor’s degree or above (M = 33.94, SD = 13.57).

Discussion

The current study sought to fill a clear gap in emerging social appearance anxiety literature. In the present study, we researched the possible effects of gender, grade level, age, mothers’ educational level and fathers’ educational level on adolescents’ social appearance anxiety scores. Results indicated that there were no significant differences in social appearance anxiety level according to gender and age. There were significant differences in social appearance anxiety level in relation to grade level, adolescents’ mothers’ educational level and fathers’ educational level. Adolescent females reported similar social appearance anxiety scores to adolescent males in this study. This finding was inconsistent with the literature. Levinson et al. (2009) concluded that older female adolescents have higher social appearance anxiety than males. Çelik (2013) found that SAAS scores are higher in male adolescents than females in a similar sample with our study in Turkey. Ko (2010) reported no gender differences in social appearance anxiety scores in undergraduate students from Korea and Germany as in our study. However, the sample was predominantly female in his study and as a result these findings should not be used to generalize.

Previous research on body image in Western countries consistently documented that female adolescents have a higher negative body image than
adolescent males (Ata, Ludden, & Lally, 2007; Davison & McCabe, 2006; Feingold & Mazzella, 1998; McCabe & Ricciardelli, 2001) as in Turkey (Aygör, 2010; Çok, 1990). This finding may be explained by sociocultural differences. Sociocultural theory posits that negative body image in women stems from the thin body ideal that is imposed by Western societies via mass media (e.g., television, magazines, and advertisements). After the 1990s, Turkey looked to the Western world and Western lifestyle, which gradually influenced individuals in Turkey. However, this progress was slow. Our finding demonstrates that thin body ideal internalization may differ culturally and this situation may influence the emergence social appearance anxiety differences in girls. At the same time, further studies are needed to investigate these contradictory results in diverse cultures.

We evaluated other variable findings in the context of body image literature. Consistent with previous literature, we found grade level differences in social appearance anxiety scores. McCabe and Ricciardelli (2001) reported that grade 7 students have higher body satisfaction than grade 8- 10 students. We found no age difference in social appearance anxiety scores. These findings are similar to Aygör (2010), Canpolat et al.(2005), Örsel, Canpolat, Akdemir, and Özay (2004), Kostanski and Gullone (1998) who found that adolescent body image did not change according to age. There are also inconsistent findings in the literature. MaÔano, Ninot, and Bilard (2004) have found that 11 year old students’ physical self-esteem is significantly higher than the 12 and 13 year old students. Similarly, Marcotte, Fortin, Potvin, and Papillon (2002) found that 11-12 year old students have a more positive body image than 17-18 year olds.

We also suggested that as a mother's educational level and father’s educational level increases, adolescents’ social appearance anxiety decreases. These findings were inconsistent with previous literature in Turkey. Aygör (2010) conducted research on 12-14 year old adolescents and concluded that body image satisfaction did not differ according to parental education level. Similarly, Çok (1990) conducted research on 11-18 year old adolescents which revealed that there is no difference in body image satisfaction in relation to the educational level of parents. Parents with higher educational levels have positive child-rearing attitudes and behaviors (Xu et al., 2005). This may positively affect adolescents’ social appearance anxiety level. Another interesting result obtained in this study was that the educational level of the father explained a higher proportion of variance in social appearance anxiety scores than the educational level of the mother. One possible explanation is that fathers have a more significant influence on their children than mothers in Turkish families.

Although the present study fulfills the important task of investigating sociodemographic variables in emerging social appearance anxiety literature, researchers must consider some limitations. Firstly, we used a self-report measure and self-report measures are subject to socially desirable responses. Secondly, we conducted a cross-sectional study, so our findings about social appearance anxiety represent differences, but not causality and temporal changes in social appearance anxiety that take place during an individual’s lifetime. Lastly, this study was conducted in Amasya. Therefore, the present findings cannot be generalized to all 11-15 year old adolescents in Turkey.

In conclusion, the results of this study stress the need for further research on social appearance anxiety to identify associated sociodemographic risk factors in Turkish adolescents. In order to help adolescents with a high level of social appearance anxiety effective intervention or prevention programs must be developed by researchers. Future research should also examine the possible effects of teasing, puberty (e.g., on time or late) and body mass index on social appearance anxiety.

References

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### Table 1
Means and Standard Deviations of Social Appearance Anxiety Scores According to Sociodemographic Variables

<table>
<thead>
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<th>N</th>
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<td>1130</td>
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<td>35.59</td>
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<td>Male</td>
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<td></td>
<td></td>
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<td>749</td>
<td>33.8</td>
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<td>731</td>
<td>32.9</td>
<td>36.02</td>
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<tr>
<td><strong>Age</strong></td>
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<td>183</td>
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