

SOCIAL MEDIA FEAR OF DISLIKE IN ADOLESCENTS: A SCALE DEVELOPMENT STUDY

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ABSTRACT

The aim of this study is to determine the fear of social media dislike in adolescents while developing a scale. 746 high school students, 451 (60.4%) girls and 295 (49.6%) boys, participated in the study. A pilot study was carried out with 117 of the participants and the data set of main administration with 631 participants was randomly assigned into two sets and exploratory and confirmatory factor analysis were administered respectively. An additional test-retest administration was carried out with 66 participants. As a result, it was determined that the scale showed a structure consisting of five dimensions (unhappiness, obsessive thinking, desirability, anonymous identity and empathy) with 24 items. Item-factor loadings varied between .404 and .833. As a result of confirmatory factor analysis, performed to confirm the factor structure. Chi-square value and all the other fit indices were found to have acceptable values. Cronbach's Alpha internal consistency coefficient was found as .814 for the total scale while test-retest reliability coefficient of the scale was .87. Findings revealed that the Social Media Fear of Dislike Scale is a valid and reliable measurement tool for determining adolescents' fear of social media dislike.

Keywords: *Scale development, Social media, Identity*

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ERGENLERDE SOSYAL MEDYA BEĞENİLMEME KORKUSU: BİR ÖLÇEK GELİŞTİRME ÇALIŞMASI

ÖZ

Bu araştırmanın amacı, ergenlerde sosyal medya beğenilmeme korkusunu belirlemeye dönük bir ölçek geliştirmektir. Araştırmaya 451'i (%60.4) kız ve 295'i (%49.6) erkek olmak üzere 746 lise öğrencisi katılmıştır. Katılımcıların 117'si ile pilot uygulama gerçekleştirilirken kalan 631 katılımcı ile gerçekleştirilen uygulamadan elde edilen veri seti seçkisiz olarak ikiye bölünmüş, ilk veri setine açımlayıcı faktör analizi ikinci veri setine ise doğrulayıcı faktör analizi uygulanmıştır. Ayrıca 66 katılımcı ile test-tekrar test uygulaması gerçekleştirilmiştir. Açımlayıcı ve doğrulayıcı analizler sonucunda ölçeğin beş alt boyut (mutsuzluk, takıntılı düşünce, beğenilme isteği, anonim kimlik ve empati) ve 24 maddeden oluştuğu belirlenmiştir. Ölçeğin madde-faktör yükleri .404 ile .833 arasında değişmektedir. Doğrulayıcı faktör analizinde Ki-kare değeri ve diğer tüm incelenen uyum indekslerinde kabul edilebilir değerlere ulaşılmıştır. Ölçeğin geneli için iç tutarlık katsayısı .814 olarak bulunmuştur. Ölçeğin test-tekrar test güvenilirlik katsayısı ise .87 olarak elde edilmiştir. Bulgular Sosyal Medya Beğenilmeme Korkusu Ölçeği'nin, ergenlerin sosyal medya beğenilmeme korkularını belirlemeye yönelik yeterli düzeyde geçerlik ve güvenilirlik değerlerine sahip bir ölçme aracı olarak kabul edilebileceğini göstermiştir.

***Anahtar Kelimeler:** Ölçek geliştirme, Sosyal medya, Kimlik*

INTRODUCTION

Nowadays, when the flow of information is intensely realized through social media, an individual may show the need to gain certain characteristics that make him distinguished while maintaining his individuality, being original and realizing himself. In this sense, it can be thought that the desire to be special may lead the individual to compare himself/herself with the other individuals by using various methods. At this point, social media utilizes one-to-one or groups' mutual communication and allows individuals to transfer information to each other (Evans, 2012; Onat, 2010). It is a tool for sharing people's stories and life experiences (Bostancı, 2010; Kanişoğlu, 2013), pictures, videos, photos and many other experiences (Kaya, 2011). In addition, social media is composed of a content created by people who use this tool to discuss or collaborate with each other (Boyd & Ellison, 2008; Kietzman, Kristopher, Maccarty, & Silvestre, 2011) that is, a web-based facilitator with personal profiles within a particular system that allows others to see. In one aspect, social media is a new communication channel in which individuals share content and express themselves as they come from within, and in which they have the opportunity to see content sharing by other users (Boyd & Ellison, 2008).

Social media has an important share covering the computer and internet usage as Turkey Statistical Institute (TÜİK) reported; according to a study they carried out in 2017 with participants in the 16-74 age group it has been referred to as 56.6% - 66.8%. Also, it was found that 83.7% of individuals use personal profile creation, sending messages, sharing photos and other content via social media (URL-1). Turkey statistics of Overview Digital in 2017 also reported that there are 48 million active social media users and such a high proportion covered almost 60% of Turkey's population. Internet World Stats 2017 published a report, based on the researches of the Nielsen Online, ITU, Facebook, and GFK, stating that the number of internet users in Turkey was 56 million people (URL-2). It can be foreseen that internet and social media, which have such a widespread usage, may bring out some individual and social problems. These problems can be observed more prominently when social media enables the individual to communicate and interact with others to reveal their actual self. This is because such a platform can enable individuals to express their actual self clearly and on the other hand to share the actual self away from subjectivity (Tosun, 2017).

Considering the usage of social media as a mean of communication, there are some features that differentiate social networks from social media. The latter connects individuals to their friends and various environments (Kırksekiz, 2013) while also providing interaction and communication among users (Gangadharbatla, 2008) and enabling young people to meet others and express themselves more easily than the actual social life (Ellison, Lampe & Steinfeld, 2016). Facebook

is one of these; utilizing social integration (Kalafat & Göktaş, 2011) via sharing of photos (Papacrasshi, 2009). Friendster which allows users to use photos such as facebook but restricts its use (Christakis & Fowler, 2012); Myspace with features such as playing games, creating events, music, video, photo sharing, and correspondence with friends who are online (Altunay, 2012); LinkedIn a tool used to build professional relationships (Vick & Walsh, 2006); and some other social networks such as Bebo which allows the creation of dynamic profiles and link networks between various domains and modes (Boyd & Ellison, 2008; Carrington, 2009) can provide similar and different possibilities to their users.

It is a common belief that social media tools help individuals to socialize with more than one social group, at the same time making them feel isolated in a virtual environment. This situation, which is the result of exposure to a large number of information provided by social media tools, can also cause some psychological problems such as attention disorder, inability to make rational decisions, and increased perception of forgetfulness and surprise (Çingay, 2015). While communicating under this technological influence, continuous change in the interactions within the society causes the individual's self to change continuously and thus, the individual cannot become individualized (Çakır, 2013). In other words, the new social media concept literally detaches individuals from themselves. This detachment may cause the individual to be left isolated from the society to a certain extent. Users gain a self formed by being in a virtual world mentally, becoming more and more preferable to being in the state of "virtual self" (Çingay, 2015).

There are many studies on social networking platforms and individuals' psychological functioning. One of them (Ellison, Lampe, & Steinfield, 2007) found that using Facebook may interact with the measures of psychological well-being. In another research Amichai-Hamburger, Kaplan and Dorpatcheon's (2008) showed that extroverts benefit from such an interaction function rather than introvert college students. In another study conducted by Calvert, Pempek and Yermolayeva (2009) about the use of Facebook by university students, it was observed that this platform was mostly used for social interaction and that the students had an offline relationship with the other students. In a study conducted by Koçak (2012) with individuals between the ages of 15-24, it was found that individuals used social media for purposes such as keeping in touch with the agenda and having fun. Participants were found to use social media primarily for consumption and then for production. Chuang, Florence, Teresa, Patti and Weichao (2018), in their quantitative study, reported that 17% of students started using social media as early as nine-years-old, and 40% accepted the request of strangers while participants also reported that they mostly use social media to connect with friends. In a scale development study conducted by Arğın (2013,

it was found that students developed positive attitudes towards social media and this was at a very high level. Attitudes towards social media were also not differentiated by gender. Additionally, gender and its effect on social media have been researched frequently. Tutgun Ünal (2015) found that social media addiction differed according to gender in favor of women. In addition, it was seen that women are supported in terms of emotion more than men in social media and men had a tendency of feeling conflict in social media. İçen and Tezci (2017) also conducted a study presenting gender differences' significant effect on the use of social media.

As it can be understood, as a popular concept in recent years, there are various and numerous studies about social media. In addition, there is a remarkable point that recent literature points out a consistent increase in the use of social media. Yet, any scale development study focusing on the social media fear of dislike, which is the subject of this research, was not found in the literature. This research is directed towards a goal to fill this gap in the literature. For these purposes of the research following problems were tried to be explored:

1. How is the level of reliability of the Social Media Fear of Dislike Scale (SMFDS)?
2. How is the validity (face, construct and criterion validity) values of SMFDS?

METHOD

Research Design

This research is a scale development study. Heppner, Wambold, and Kivlighan (2008) suggested that researches may use the following steps in the scale development process; establishing the structure and concept to be measured, literature review, forming the item pool and scaling, content analysis and pilot application, sampling and data collection, conducting factor analysis, clarifying the definitive items, and finally exploring the psychometric properties. In the process of developing SMFDS, a similar path was followed and firstly the literature was reviewed adopting theoretical explanations about self-design and self-esteem concepts to conceptualize social media fear of dislike.

Study Group

The study group was formed from high school students attending five different high schools in a district of Istanbul during the 2018-2019 academic year. Considering the practical issues, appropriate sampling method (Fraenkel & Wallen, 2012) was adopted while selecting the study group. The scale was administered to a total of 748 high school students including the pilot and trial form of the scale and the personal information form. Size of the study group was determined by taking into consideration the rule "at least five times the number of items" (Tavşancıl, 2014).

A pilot form was administered to 117 participants (60 boys, 57 girls) while data of another 631 participants (39.44% of total, 295 boys; %60.54 of total, 453 girls) was used for the trial form. For exploratory and confirmatory factor analysis, randomly assigned two group of data (n1=316, n2=315) were used. Test-retest method with two weeks interval was adopted to find out the consistency of the scale with 66 high school students.

Data Collection Instruments

Social Media Fear of Dislike Scale: An item pool consisting of 83 items which are representing related constructs formed by the researchers. An expert opinion form was prepared and sent to two experts who had previous research about this subject to examine the items in terms of their appropriateness and construct validity. Subsequently, a language specialist corrected item errors. After expert views and pilot administration, a pool of 39 items was used. A four-point scaling “(1) Never”, “(2) Sometimes”, “(3) Frequently”, “(4) Always” was preferred. There is no reverse item in the scale.

Factor analytic studies showed that SMFDS consisted of five dimensions (unhappiness, obsessive thinking, empathy, desirability, anonymous identity) and a final form of 24 items. The unhappiness sub-dimension is formed by items 1, 2, 3, 5, 6, 8 and 16; the obsessive thinking sub-dimension is formed by items 17, 19, 22 and 24; the sub-dimension of the desirability is formed by items 4, 10, 12, 13 and 14; anonymous identity sub-dimension is formed by items 7, 9, 18 and 21; and empathy sub-dimension is formed by items 11, 15, 20 and 23. The highest and lowest scores that can be obtained from the scale are 96 and 24 respectively. A high score is interpreted as the individual perceiving himself / herself as highly having a fear of social media dislike.

Data Collection

Data is collected by the first researcher with written forms of data collection tools after obtaining the ethical and legal permissions. Legal permissions are obtained from the Istanbul National Education Department with the approval of the governorship of Istanbul. Before administration of data collection instruments participants are instructed about the research and confidentiality policy. Data is collected on a voluntary basis and participants are given contact information in case they needed research results.

Data Analysis

Two statistical softwares, SPSS 22.0 (Statistical Package for the Social Sciences) and LISREL 8.80 (Linear Structural Relations) were used. All the data were first examined for the presence of missing and extreme values, and then assumptions of the related analysis are examined before validity and reliability studies. As for the validity studies, the content and structure validity were examined. To ensure

validity first of all expert opinions were used and 21 of the items were revised. Then, the data obtained from the first study group was used in exploratory factor analysis (EFA) with the eigenvalue statistics and scatter plot being considered to determine the number of factors in the first phase of analysis. Then, the explained variance ratios, item-factor loadings, item total correlations and item discrimination levels are examined. Confirmatory factor analysis (CFA) was used with the second data set while all the commonly used fit indices and graphs being taken into consideration. To explore the reliability of the scale, Cronbach's alpha coefficients were calculated for the whole scale and each dimensions. To calculate test-retest reliability pearson correlation analysis between administrations is used.

FINDINGS AND DISCUSSION

Factor Analysis And Findings Related To Structure Validity

After examining the expert opinions where 55 items were evaluated in terms of their content and appropriateness for the construct to be measured a 39 item trial form of the scale was designed. A preliminary study was conducted with 117 participants and feedbacks about clarity of the items were received and corrected in accordance with these feedback. Then the appropriateness of the data set for factor analysis was tested first. At this stage, the data was collected from 725 participants, who expressed themselves as social media users, in order to reveal the factor structure of the scale and determine the construct validity. Before data analysis, outlier values were examined and the 12 of the participants' data were extracted from the dataset. Skewness and Kurtosis values were also examined and showed the value of 0.097 right skewed, but normal and 0.0801 non-vertical. Data set is randomly divided into two as it was explained above, and EFA was conducted using the first data set.

Kaiser-Meyer-Olkin (KMO) value was found to be 0.852. Tabachnick and Fidel (2001) stated that for factor analysis, the KMO value should be at least 0.60, while Sencan (2005) and Sharma (1996) also suggested that the sample gives you a KMO value of 0.90 is regarded as an excellent level for data analysis. Barlett test was also found to be significant ($\chi^2 = 3057.446$, $p = 0.000$). These findings show that the data structure can be evaluated as applicable for the factor analysis.

Eigenvalue statistics are used to explore factor numbers of the scale. Factors with eigenvalue statistics higher than one are considered as significant and included in factor structure of the scale. Table 1 shows the eigenvalues of the factors obtained by factor analysis and the amount of variance explained.

Table 1. Variance Explained By Dimensions Of SMFDS

| Dimension | Eigenvalue | Variance Explained | Cumulative Variance |
|-----------|------------|--------------------|---------------------|
| 1 | 5.201 | 21.673 | 21.673 |
| 2 | 1.885 | 7.853 | 59.526 |
| 3 | 1.487 | 6.197 | 35.723 |
| 4 | 1.308 | 5.450 | 41.173 |
| 5 | 1.176 | 4.899 | 46.072 |

As shown in Table 1, the variance explained by the first factor with an eigenvalue of 5.201 was 21.673%; the second factor with an eigenvalue of 1.885 explained 7.853% of the total variance; the third factor with an eigenvalue of 1.487 explained 6.197% and the fourth and fifth factors with eigenvalues of 1.308 and 1.176 and explained 5.450% and 4.899% of the variance respectively. Cumulatively the explained variance by the scale was found to be 46.072%. Especially in social studies, it is not usually possible to obtain very high variance rates even if a higher value is aimed. In multi-factorial designs, it is considered sufficient that variance should be explained between 40% and 60% (Cokluk, Sekercioglu & Buyukozturk, 2010). Also according to Tavşancıl (2014), the ideal variance ratios in social sciences are in the range of 40-60% which covers SMFDS's total explained variance sufficiently. In this study the variance explained is found as 46% and might be accepted as sufficient.

Another method commonly used to visually inspect the number of factors is the scree plot test. Accordingly, scree plot graph of the SMFDS is given in Figure 1. As it may be seen the factor structure resolves on five factors considering the natural bend or break point (Osborne & Costello, 2005).

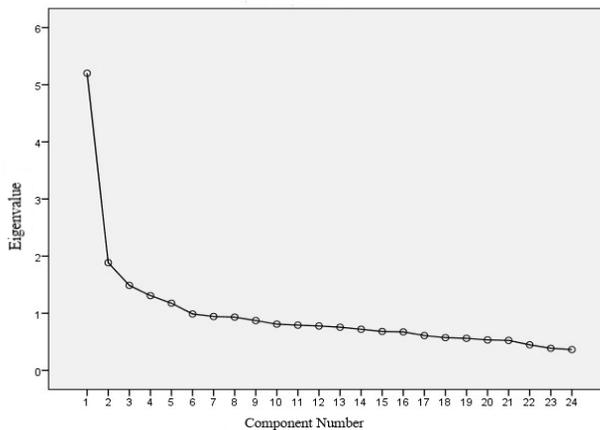


Figure 1. Scree Plot Graph Of SMFDS

Item-factor loadings are also examined (Table 2) in addition to the methods above to inspect factor structure. Item-factor loading cut-off point is decided as .32 as suggested by Tabachnick and Fidel (2001). Also according to Ebel (1965), if item-total scale correlations are .20 and below removal of the item from the scale is suggested, if between .20 - .30 should be revised, may be considered as good if they are between .30- .40, and a loading of .40 and higher shows that the item is very discriminative (as cited in Erkuş, 2016).

Table 2. Item-Factor Loading Values Of SMFDS

| Items | Factors | | | | |
|--|---------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 |
| 6 I constantly think about whether my social media posts are liked or not | .675 | | | | |
| 8 I would be unhappy if the content I shared on social media is not liked. | .661 | | | | |
| 1 When people don't like what I share, my self-confidence decreases. | .656 | | | | |
| 2 I often look at the number of likes of what I share on social media. | .603 | | | | |
| 3 It saddens me that my friends don't like my shares. | .592 | | | | |
| 5 I'm uneasy when my shares are disliked. | .555 | | | | |
| 16 When the content I share on social media is less liked, I feel depressed. | .525 | | | | |
| 19 I can't be motivated for my lessons when people don't like what I share on social media | | .833 | | | |
| 24 Dislike of what I share on social media adversely affects my focus on my goals. | | .743 | | | |
| 17 It takes me a long time to keep out of my mind that people don't like shares on social media. | | .554 | | | |
| 22 I will immediately remove my disliked shares. | | .495 | | | |
| 10 I argue with my friends who don't like the content I share. | | | .685 | | |
| 14 Not being able to catch the popularity of my daily life on social media makes me uneasy. | | | .622 | | |
| 13 I'm afraid of my shares being disliked by my peers. | | | .603 | | |
| 12 I think I'm disliked when the number of likes on social media is low. | | | .511 | | |
| 4 The reactions of others determine my shares on social media. | | | .404 | | |
| 21 I don't share my own photos for fear that it won't be liked on social media. | | | | .678 | |
| 7 I fear to share with a fear of dislikes. | | | | .657 | |
| 18 I'm afraid my personal characteristics are disliked on social media. | | | | .414 | |
| 9 Not all of my posts on social media reflect me. | | | | .406 | |
| 15 My posts on social media are liked because they reflect other people's ideas. | | | | | .654 |
| 20 I wonder what other people think of my disliked posts. | | | | | .625 |
| 23 As the number of likes of the content I share increases, I spend more time on social media. | | | | | .579 |
| 11 I would like to know what posts others would like. | | | | | .563 |

It is seen that the lowest item-factor loading value is .404 which reveals that the relationship between variables is high. Since SMFDS was understood to have five factors, the items under which the factors were included are given in Table 2 together with the item-factor loadings. After the factor analysis, it was observed that the SMFDS, which had 39 items, decreased to 24 items when overlapping items are excluded. Comrey and Lee (1992) reported that the item-factor loadings may be evaluated as follows; perfect if it is .71, very good if it is .63, good if it is .55, moderate if it is .45 and weak if it is .32 (As cited by Tabachnick and Fidel, 2001). Accordingly, when Table 2 is examined, item-factor loading values of the first factor which consists of seven items, varied between .525 and .675; the second factor with four items, between .833 and .495; the third factor consisting of five items, between .685 and .404; item-factor loading values of the fourth factor consisting of four items varied between .678 and .406; and the fifth factor consisting of four items varied between .654 and .563 respectively. Thus, the factor structure of the SMFDS was determined and then the factors were named in accordance with the factor contents, and the relationship of each factor or dimension (Table 3) was explored.

Table 3. Relationship Between SMFDS And Its Dub-Dimensions

Table 3. Relationship Between SMFDS And Its Dub-Dimensions

| Dimensions /Scale Total | Unhappiness | Obsessive Thinking | Empathy | Desirability | Anonymous Identity |
|-------------------------|-------------|--------------------|---------|--------------|--------------------|
| Unhappiness | 1.00 | | | | |
| Obsessive Thinking | .367* | 1.00 | | | |
| Empathy | .384* | .29* | 1.00 | | |
| Desirability | .382* | .35* | .24* | 1.00 | |
| Anonymous Identity | .282* | .38* | .13* | .35* | 1.00 |
| SMFDS | .818* | .63* | .64* | .648* | .566* |

(*p<.01)

(p <0.01)

Table 3 shows the relationship between SMFDS and dimensions. When the relationship between the five dimensions was examined, significant relationships were found at the level of .01 (p <0.01). In the next stage validity studies were conducted.

Item Discrimination Findings

At this phase of the research, discriminatory studies were conducted. Item discrimination index shows the extent to which items distinguish individuals with respect to the measured construct. Item discrimination index can vary between -1 and +1 testing the differences between the item mean scores of the lower 27% and upper 27% groups (Büyüköztürk, Akgün, Çakmak, Demirel, & Karadeniz, 2014). In accordance with these explanations, first of all total scores obtained from the scale were calculated and ranked from small to large. Then, considering the cut-off value (27%), 170 participants from the top (the highest scores) and 170

participants from the bottom (the lowest scores), yielding 340 persons consisting of two groups of 170 persons per group is defined.

Independent t-test was used for the upper and lower groups to examine the differences between the groups and the results were significant for all items ($p = 0,000$). These transactions were also used for each subscale. When the item discrimination values in Table 4 were examined, the results were found as significant for the whole scale and its dimensions.

Table 4. T-Test Results for Item Discrimination Values

| Item Nr. | Groups | N | \bar{x} | Ss | Sd | t | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|--------|-----|-----------|---------|---------|--------|-------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|-------|-----|--------|---------|----|-------|-----|--------|---------|---------|--------|-------|
| 1 | Lower | 170 | 11.294 | 0.35379 | 230.747 | 12.279 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 19.647 | 0.81331 | | | | 2 | Lower | 170 | 16.941 | 0.60615 | 281.276 | 13.083 | .000* | Upper | 170 | 28.529 | 0.98306 | 3 | Lower | 170 | 13.059 | 0.57612 | 259.899 | 12.402 | .000* | Upper | 170 | 24.588 | 1.06647 | 4 | Lower | 170 | 10.765 | 0.26653 | 206.725 | 9.078 | .000* | Upper | 170 | 16.588 | 0.79276 | 5 | Lower | 170 | 10.529 | 0.22458 | 195.022 | 11.171 | .000* | Upper | 170 | 17.706 | 0.80697 | 6 | Lower | 170 | 10.412 | 0.22704 | 187.657 | 15.010 | .000* | Upper | 170 | 21.824 | 0.96491 | 7 | Lower | 170 | 10.412 | 0.19929 | 187.57 | 11.258 | .000* | Upper | 170 | 17.941 | 0.84893 | 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | Upper | 170 | 21.235 | 0.85106 | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* |
| 2 | Lower | 170 | 16.941 | 0.60615 | 281.276 | 13.083 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 28.529 | 0.98306 | | | | 3 | Lower | 170 | 13.059 | 0.57612 | 259.899 | 12.402 | .000* | Upper | 170 | 24.588 | 1.06647 | 4 | Lower | 170 | 10.765 | 0.26653 | 206.725 | 9.078 | .000* | Upper | 170 | 16.588 | 0.79276 | 5 | Lower | 170 | 10.529 | 0.22458 | 195.022 | 11.171 | .000* | Upper | 170 | 17.706 | 0.80697 | 6 | Lower | 170 | 10.412 | 0.22704 | 187.657 | 15.010 | .000* | Upper | 170 | 21.824 | 0.96491 | 7 | Lower | 170 | 10.412 | 0.19929 | 187.57 | 11.258 | .000* | Upper | 170 | 17.941 | 0.84893 | 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | Upper | 170 | 21.235 | 0.85106 | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | |
| 3 | Lower | 170 | 13.059 | 0.57612 | 259.899 | 12.402 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 24.588 | 1.06647 | | | | 4 | Lower | 170 | 10.765 | 0.26653 | 206.725 | 9.078 | .000* | Upper | 170 | 16.588 | 0.79276 | 5 | Lower | 170 | 10.529 | 0.22458 | 195.022 | 11.171 | .000* | Upper | 170 | 17.706 | 0.80697 | 6 | Lower | 170 | 10.412 | 0.22704 | 187.657 | 15.010 | .000* | Upper | 170 | 21.824 | 0.96491 | 7 | Lower | 170 | 10.412 | 0.19929 | 187.57 | 11.258 | .000* | Upper | 170 | 17.941 | 0.84893 | 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | Upper | 170 | 21.235 | 0.85106 | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | |
| 4 | Lower | 170 | 10.765 | 0.26653 | 206.725 | 9.078 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 16.588 | 0.79276 | | | | 5 | Lower | 170 | 10.529 | 0.22458 | 195.022 | 11.171 | .000* | Upper | 170 | 17.706 | 0.80697 | 6 | Lower | 170 | 10.412 | 0.22704 | 187.657 | 15.010 | .000* | Upper | 170 | 21.824 | 0.96491 | 7 | Lower | 170 | 10.412 | 0.19929 | 187.57 | 11.258 | .000* | Upper | 170 | 17.941 | 0.84893 | 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | Upper | 170 | 21.235 | 0.85106 | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Lower | 170 | 10.529 | 0.22458 | 195.022 | 11.171 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 17.706 | 0.80697 | | | | 6 | Lower | 170 | 10.412 | 0.22704 | 187.657 | 15.010 | .000* | Upper | 170 | 21.824 | 0.96491 | 7 | Lower | 170 | 10.412 | 0.19929 | 187.57 | 11.258 | .000* | Upper | 170 | 17.941 | 0.84893 | 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | Upper | 170 | 21.235 | 0.85106 | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Lower | 170 | 10.412 | 0.22704 | 187.657 | 15.010 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 21.824 | 0.96491 | | | | 7 | Lower | 170 | 10.412 | 0.19929 | 187.57 | 11.258 | .000* | Upper | 170 | 17.941 | 0.84893 | 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | Upper | 170 | 21.235 | 0.85106 | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Lower | 170 | 10.412 | 0.19929 | 187.57 | 11.258 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 17.941 | 0.84893 | | | | 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | Upper | 170 | 21.235 | 0.85106 | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Lower | 170 | 10.412 | 0.22704 | 192.935 | 16.022 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 21.235 | 0.85106 | | | | 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | Upper | 170 | 2.6000 | 0.99347 | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Lower | 170 | 18.647 | 0.99671 | 337.996 | 6.813 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 2.6000 | 0.99347 | | | | 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | Upper | 170 | 1.5000 | 0.87874 | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Lower | 170 | 10.647 | 0.24673 | 195.482 | 6.218 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 1.5000 | 0.87874 | | | | 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | Upper | 170 | 23.353 | 1.03171 | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Lower | 170 | 12.353 | 0.46529 | 235.016 | 12.672 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 23.353 | 1.03171 | | | | 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | Upper | 170 | 17.471 | 0.85701 | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | Lower | 170 | 10.353 | 0.26411 | 200.814 | 10.348 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 17.471 | 0.85701 | | | | 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | Upper | 170 | 13.765 | 0.79906 | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | Lower | 170 | 10.529 | 0.33107 | 225.361 | 4.877 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 13.765 | 0.79906 | | | | 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | Upper | 170 | 17.050 | 0.88141 | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | Lower | 170 | 10.588 | 0.23599 | 193.106 | 9.246 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 17.050 | 0.88141 | | | | 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | Upper | 170 | 23.882 | 0.93700 | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Lower | 170 | 18.118 | 0.81399 | 331.52 | 6.056 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 23.882 | 0.93700 | | | | 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | Lower | 170 | 10.235 | 0.15203 | 180.955 | 14.462 | .000* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper | 170 | 19.353 | 0.80783 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | |
|----|-------|-----|--------|---------|---------|--------|-------|
| 17 | Lower | 170 | 10.059 | 0.07670 | 172.901 | 9.828 | .000* |
| | Upper | 170 | 15.471 | 0.71387 | | | |
| 18 | Lower | 170 | 10.353 | 0.18507 | 191.13 | 9.059 | .000* |
| | Upper | 170 | 15.529 | 0.72170 | | | |
| 19 | Lower | 170 | 10.059 | 0.07670 | 172.499 | 7.592 | .000* |
| | Upper | 170 | 14.471 | 0.71387 | | | |
| 20 | Lower | 170 | 12.941 | 0.48219 | 244.809 | 12.320 | .000* |
| | Upper | 170 | 23.353 | 0.99075 | | | |
| 21 | Lower | 170 | 10.471 | 0.28392 | 204.47 | 8.032 | .000* |
| | Upper | 170 | 16.118 | 0.87156 | | | |
| 22 | Lower | 170 | 10.882 | 0.30457 | 209.515 | 11.278 | .000* |
| | Upper | 170 | 10.882 | 0.87326 | | | |
| 23 | Lower | 170 | 13.176 | 0.68305 | 300.919 | 11.577 | .000* |
| | Upper | 170 | 23.824 | 0.98554 | | | |
| 24 | Lower | 170 | 10.294 | 0.25341 | 198.353 | 7.641 | .000* |
| | Upper | 170 | 15.529 | 0.85666 | | | |

(*p<.05)

Internal Consistency Findings

Internal consistency coefficients for SMFDS and its dimensions were determined in order to ensure the reliability of the measurement tool. Cronbach's Alpha internal consistency coefficients are given in Table 5.

Table 5. Reliability of SMFDS and Its Dimensions

| Dimensions / SMFDS | Number of Items | Cronbach's Alpha |
|--------------------|-----------------|------------------|
| Unhappiness | 7 | .761 |
| Obsessive Thinking | 4 | .688 |
| Empathy | 4 | .542 |
| Desirability | 5 | .604 |
| Anonymous Identity | 4 | .446 |
| SMFDS | 24 | .814 |

The Cronbach's alpha value of SMFDS was found as .814 and the scale appears to be reliable while Cronbach's alpha values of dimensions were found between .702 (anonymous identity) and .761 (unhappiness) and may be regarded as acceptable. It has been stated by various researchers (Kaplan & Saccuzzo, 1989; Nunnally & Berstein, 1994; Ozguven, 2007; Seker & Gencdogan, 2006) that the value of a test's internal consistency coefficient should be between .70 and .80. When these values were taken into consideration it may be evaluated that the internal consistency coefficients of the SMFDS are sufficient.

Test-Retest Reliability Findings

Test-retest reliability is a technique to determine the reliability of the measurement tool by re-administering the scale to the same participants after a certain period of time (Büyüköztürk et al., 2014). The final form of SMFDS with 24 items and five dimensions was used for this purpose. Then, it was administered to 66 participants with a three weeks interval. The relationship between the two administrations were determined and the findings obtained are given in Table 6.

Table 6. Test-Retest Findings Of SMFDS

| Administrations | Independent Group T-Test | | | | | Correlation Test | |
|---|--------------------------|-------|----|-------|-------|------------------|-------|
| | \bar{X} | Ss | Sd | T | P | R | P |
| Unhappiness ₁ & Unhappiness ₂ ** | 9.09 | 2.56 | 66 | 1.69 | 0.09 | .84 | .000* |
| Obsessive Thinking ₁ & Obsessive Thinking ₂ | 4.39 | 0.96 | 66 | 1.23 | 0,222 | .46 | .000* |
| Desirability ₁ & Desirability ₂ | 5.67 | 1.19 | 66 | 0.66 | 0.51 | .61 | .000* |
| Anonymous Identity ₁ & Anonymous Identity ₂ | 5.91 | 1.64 | 66 | 0.00 | 1.00 | 1.00 | .000* |
| Empathy ₁ & Empathy ₂ | 5.88 | 1.876 | 66 | 0.00 | 1.00 | 1.00 | .000* |
| SMFDS-TOTAL ₁ & SMFDS-TOTAL ₂ | 31.18 | 6.15 | 66 | 0.593 | 0.55 | .87 | .000* |

(*p<.05)

**The subnumbered values 1 and 2 in the table (ie.; Unhappiness₁ and Unhappiness₂) refer to the 1st and 2nd administrations.

When Table 6 was examined, significant relationships were found between consecutive administrations. Based on the results obtained, it was concluded that the reliability of invariance of SMFDS and its dimensions over the time was provided.

Confirmatory Factor Analysis Findings

CFA was used to test the five-factor structure of SMFDS revealed by EFA. In CFA, the relationships between the factors and the items underlying the factors, that were previously discovered by exploratory factor analysis, are tried to be revealed (Çelik & Yılmaz, 2016). As a result of analysis, the model that is being tested has some evaluation criteria for the suitability of the data collected for that model, in other words, fit indices. Chi-Square Exact-Fit Test, Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Square Residual (RMR or RMS) and Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Normed Fit Index (NFI) are among some of the commonly used indices (Çelik & Yılmaz, 2016; Raykov & Marcoulides, 2000).

In this study, the fit of the model was first tested by the ratio of chi-square to the degree of freedom, and then GFI, AGFI, CFI, IFI, NFI, NNFI, SRMR and RMR

values were examined and the results obtained are given in Table 7. In relation to the goodness of fit statistics obtained from the output file of the confirmatory factor analysis, the researchers identified different cutoff points. Tabachnick and Fidell (2001) stated that there is no fit if CFI and NNFI are zero, that this value can be said to be good sign of fit when it is closer to one, and a good fit can be seen when it is above 0.90. According to Fabrigar et.al. (1999), RMSEA values less than 0.05 constitute good fit, values in the 0.05 to 0.08 range acceptable fit, values in the 0.08 to 0.10 range marginal fit, and values greater than 0.10 poor fit. Schermelleh-Engell, Moosbrugger and Muller (2003) also stated that the acceptable value of RMSEA should be at most 0.08, RMR and SRMR at most 0.10, GFI at least 0.90 and AGFI at least 0.85. Byrne and Campbell (1999) and Hu and Bentler (1999) reported that RMR value of less than 0.05 is considered to be a good fit and a value of .06 to .08 is an acceptable fit. For CFI, IFI, and NNFI, values higher than 0.95 are accepted as a good fit and values between 0.90 and 0.94 are regarded as acceptable. AGFI values in the range of 0.85 to 0.90 indicate acceptable agreement and a RMR value of less than .05 is considered a good fit and a value of .06 to .08 is acceptable. Again, X^2/df value greater than 5 is considered as an acceptable value (Byrne & Campbell, 1999; Hu & Bentler, 1999).

Table 7. Fit Indices Of SMFDS

| Indice | Value |
|---|-------|
| X^2 | 785.6 |
| df | 247 |
| X^2/Df | 3.2 |
| GFI (Goodness of Fit Index) | 0.91 |
| AGFI (Adjusted Goodness of Fit Index) | 0.89 |
| CFI (Comparative Fit Index) | 0.92 |
| IFI (Incremental Fit Index) | 0.92 |
| NFI (Normed Fit Index) | 0.90 |
| NNFI (Non-Normed Fit Index) | 0.91 |
| SRMR (Standardized Root Mean Square Residual) | 0.061 |
| RMR (Root Mean Square Residual) | 0.034 |

Based on these criteria, it can be said that the five-factor structure of the scale was confirmed. In the CFA performed on the structure revealed by EFA, the model fit was tested with the ratio of chi-square value to the degree of freedom, then the CFI value was 0.92, the IFI value was 0.92, the NFI value was 0.90 and the NNFI value was 0.91. Considering the explanations above; especially AGFI values obtained may be indicating a relatively acceptable fit, yet all the other

indices (GFI, CFI, NNFI, RMSEA) indicate a good fit of observed variables over latent variables. Some researchers (Schermelleh-Engell, Moosbrugger & Müller, 2003; Steiger, 2007) stated that cutoff values for goodness of fit statistics might be differing depending on the complexity of the research model, the number of variables and sample structure. In particular, it is thought that low values of adjusted goodness of fit index (AGFI) may be due to these reasons. It can be said that the five-factor structure of the scale was confirmed in the data obtained from the sample according to the goodness of fit index findings of the SMFDS. Path diagram and parameter estimates of the goodness of fit indices obtained from CFA are presented in Figure 2.

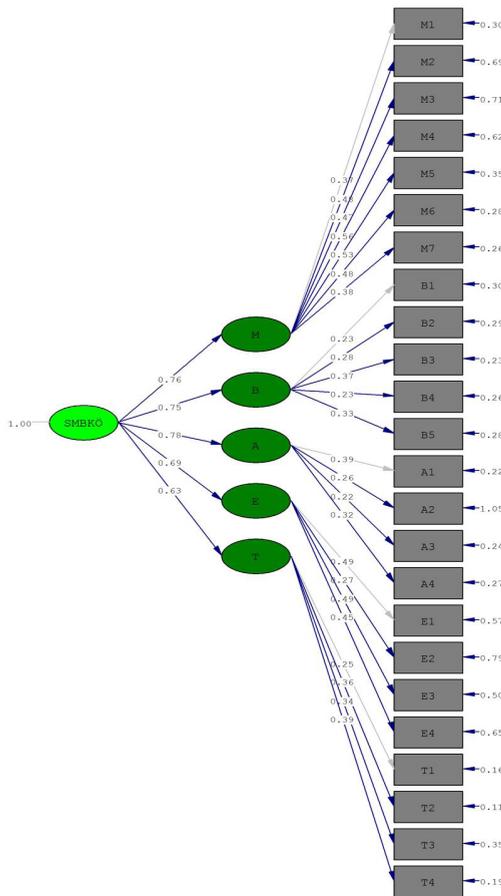


Figure 2. Path Diagram And Parameter Estimates Of SMFDS
 (SMBKÖ: SMFDS; M: Unhappiness; B: Desirability; A: Anonymous identity;
 E: Empathy; T: Obsessive thinking)

Error variances were then checked from the standardized solution screen. It was determined that error variances showed values between 0.11 and 1.05 and were considered as acceptable. None of the standardized parameter values for the paths correctly defined for the variables observed in the latent variables were found to be greater than one, and varied between 0.22 and 0.56. Additionally, it was found that χ^2 value is 785.6 and degree of freedom (df) value is 247 and χ^2 / df ratio is 3,2 and χ^2 value is significant ($p < 0.01$). These findings have shown that there is no major error in the model and that the items represent the factors that are latent variables sufficiently (Cokluk, Sekercioğlu & Buyukozturk, 2010). Examining the modification indices suggested for the items, it is seen that some observed variables are suggested to be associated with latent variables that are different from the proposed model. However, this change has not been realized because those were not theoretically meaningful and have extremely low effect on chi-square.

CONCLUSIONS

In conclusion, this study, which aimed to develop SMFDS to measure social media dislike fears of adolescents, is important in terms of filling a gap in the literature. One of the strengths of this study is it presents more than one procedure for the construct validity and reliability of the measures obtained from the SMFDS and the discrimination of scale items. Besides, to collect evidence for the construct validity of the measurement, utilization of both explanatory and confirmatory factor analysis may be another additional strength.

SMFDS which is developed in this study consists of 24 items and five sub-dimensions (unhappiness, obsessive thinking, anonymous identity, empathy and desirability). The highest score that can be obtained in the total SMFDS is 96 and the lowest score is 24. There are seven items in the unhappiness sub-dimension, and the lowest score that can be obtained is 7 and the highest score is 28; four items in the obsessive thinking, empathy and anonymous identity sub-dimensions, with the lowest possible score being 4 and the highest score being 16; five items in the desirability sub-dimension, and the lowest score that can be obtained is 5 while the highest score is 20. It might be interpreted that the higher the score, the higher the fear of dislike of social media. This interpretation is valid for both the total-scale and sub-dimension scores.

According to the findings of EFA, it is seen that SMFDS's item factor loading values and the variance explained are acceptable in accordance with the criterias in the literature. In terms of SMFDS's reliability it may be concluded that the internal consistency coefficients and test-retest reliability values of the SMFDS are sufficient. These findings are also supported by CFA results. Five-factor model of the scale was confirmed in the data obtained from the sample according to the goodness of fit index findings.

As a result, it can be concluded that SMFDS is a scale that can be used to determine adolescents' fear of dislike of social media. Validity and reliability findings of the scale indicate that SMFDS is a valid and reliable measurement tool to determine adolescents' fear of dislike of social media. Using the SMFDS scores of adolescents, which may be seen as a sign of personal issues, it might be possible to develop psycho-social support programs and tailor individual counseling sessions specifically aiming at some sensitive inner constructs such as self-concept and identity. In addition, further studies can be conducted on this topic such as a qualitative research on the reasons for adolescents' fear of not being liked on social media. Social media literacy courses can be included in the curriculum to ensure that policy makers use social media consciously by adolescents. Also, some social media related topics that are still to be uncovered may find SMFDS helpful.

Although sufficient reliability and validity evidence has been collected for the measurement instrument developed in the research, this study has some important limitations. First of all, it can be stated that the structure, which is intended to be measured, is very difficult to functionally define and the use of social media varies considerably depending on the platform used. Therefore it may be relatively difficult to interpret the measured structure or even there is a need for caution when the scores are interpreted. It is useful for researchers and practitioners who want to use this measurement tool to consider this variations between social media platforms. Another limitation of the study is related to the level of representation of the sample considering the measured structure. The fear of social media dislike may be influenced by many factors such as socio-economic level and the effect of environmental conditions.

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