Relationship of Phubbing, a Behavioral Problem, with Assertiveness and Passiveness: A Study on Adolescents

Research Article

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To cite this article: Parmaksiz, I. (2019). Relationship of Phubbing, a Behavioral Problem, with Assertiveness and Passiveness: A Study on Adolescents, International Online Journal of Educational Sciences, 11 (3), 34-45.

ARTICLE INFO

ABSTRACT

In this study, it was aimed to examine whether or not adolescents’ assertiveness and passiveness characteristics predicted their phubbing behavior. This study was carried out with 9th, 10th, 11th and 12th grade students in three different high schools in a city in Central Anatolia during the first semester of 2018-2019 academic year. A total of 634 students, 430 females and 204 males, participated in the study. The data were collected by the Phubbing Scale, the Assertiveness Scale and Personal Information Form, developed by the researcher. For the data analysis, t-test was used for binary variables and one-way analysis of variance for multiple variables were used. In the study, hierarchical regression analysis was used to determine whether students’ assertiveness predicted phubbing or not. According to the study findings, sex and type of school did not have an effect on phubbing, whereas the fact that the cell phone used was a smart phone or not was effective on phubbing. While phubbing had a significant negative relationship with assertiveness, it had a significant positive relationship with passiveness. The study determined that both assertiveness and passiveness were significant predictors of phubbing. Assertiveness, passiveness and the cell phone used are effective in explaining the phubbing behavior.

Keywords:
Assertiveness, passiveness, phubbing, cell phone

Introduction

One of the most important changes in the changing world is the technological developments. While technology makes life easier, it also brings problems with itself. One of the most important technological discoveries in the world is the cell phones. Nowadays, there are very few people who don't have a cell phone anymore, and millions of people around the world continue their daily communication using only their cell phones (Mieczakowski, Goldhaber & Clarkson, 2011). In fact, as the world is getting more and more connected, people develop addictions as a result of the larger possibilities of these virtual contacts, and thus become disconnected from reality (Kuss & Griffiths, 2011). An abuse or overuse of smartphones, resulting in problematic internet use, has led to the emergence of an increasingly common problem area, expressed as...
“phubbing”, rather than to the increase of social interactions (Roberts & David, 2016). In May 2012, the term phubbing was formed by combining the words phone and snub (disregard/ignore) by an expert team. The team wanted to create a term to refer to the phenomena where a person consciously ignores others while using cell phone. With the Macquarie Dictionary included this word into its content in 2013, which made the concept spread worldwide (macmillandictionary.com). Phubbing is a behavior where a person ignores the people around him or her in a social environment by focusing on his or her cell phone rather than chatting with the others. This lack of communication is a condition that negatively affects personal well-being and relationships (Roberts & David, 2016). Phubbing carries more destructive and hidden dangers than many virtual addictions. For this reason, instead of increasing social interaction, smartphones can lead to a disorder arising from wrongly or over using internet (Davey, Davey & Singh, 2016). Phubbers may prefer their own online self rather than socially interacting with others (Rand, Brescoll, Everett, Capraro & Barcelo, 2016; Branas-Garza, Capraro & Ramirez, 2018). Such situations can also lead to psychopathological and sociological problems (Karadağ et al., 2016).

Phubbing is considered to be comprised of five dimensions, including smartphone addiction, internet addiction, social media addiction, game addiction, and application addiction (Karadağ et al., 2016). To date, the use of technological tools such as cell phones, internet, social media, games and Facebook has been shown to increase phubbing (Blachnio & Przepiorka, 2018; Karadağ et al., 2015). Adolescents are also at risk of this addiction due to the widespread use of telephone amongst them. Frequent checking of their phones for educational or personal reasons is a problem area distracting the students (Uğur & Koç, 2015). Phubbing is therefore becoming a problem area that also affects education.

Furthermore, phubbing can also lead people to an artificial reality, make it difficult to get to bond with real people, and harm relationships. Using smartphones for face-to-face communication might reduce conversation quality over the phone (Wang, Xie, Wang, Wang & Lei, 2017). As a result, phubbing appears to be a problematic behavior that could harm both phubbers and the one who are phubbed (Chotpitayasunondh & Douglas, 2016). Today, phubbing is considered a new form of addiction by the scientific literature (Davey et al., 2018; Roberts, Yaya & Manolis, 2014 et al., 2014). Phubbing behavior has recently received an increasing interest amongst the psychological problems and consequences of using smartphones (Chotpitayasunondh & Douglas, 2016). It has also become an important field of study for researchers. The current literature is unfortunately inadequate. There are only a few studies examining the possible predictors of phubbing. However, the existing studies cannot fully define this complex concept.

Assertiveness and passiveness are believed to be concepts related to phubbing. Assertiveness refers to a communication in which each individual is equally involved in interpersonal communication, and also includes trustworthiness, mutuality and respect. Thus, individuals can act with a sense of mutual trust and sincerity (Güdek, 2014). A skill, assertiveness is a behavior characteristic that increases the quality of social life because it was determined that the communication skills of assertive people are more advanced than people who are not assertive (Karahan, 2005). Assertiveness is about looking after your own rights without feeling of anger and frustration. Assertiveness is also about knowing to truth and realizing these truths. Assertive behavior is a characteristic affecting both the satisfaction of one’s own life and the quality of his or her relationship with others (Pamuk, 2013). Assertiveness enables individuals to develop better social relationships and to follow a more active way to solve their problems. Moreover, it is believed that individuals who solve their problems more effectively will need less psychological help (Akeren, 2017). Assertiveness is also defined as the skills to express oneself during social interactions (Vagos & Pereira, 2010). When the individual is assertive, he or she exhibits the necessary social behaviors at the right time (Martinez, Justicia & Haro, 2016). Assertiveness skills are necessary to improve the quality of personal skills and interactions (Hamoud, Abd El DAYEM & Ossman, 2011).

Low level of assertiveness is an important problem that people might encounter. This problem is often manifests itself as passiveness. Passives cannot express themselves well and cannot establish effective dialogues. They also experience social anxiety and consider their social skills as inadequate (McWhirter &
Voltan-Acar, 2005). As assertiveness decreases, it can be said that passive reactions increase. A low level of assertiveness is a significant predictor of internet addiction (Dalbudak et al., 2015). Phubbing is also the result of the smartphones, particularly the Internet, an important application in these devices. In addition, assertiveness is an important quality for adolescents to express themselves in different environments without feeling uncomfortable (Shanmugam & Kathyayini, 2017). Adolescents with low levels of assertiveness prefer virtual applications instead of communicating with their real social environments. This situation results in individuals moving away from their real social environments. People who break away from the real social environment do not see themselves as a meaningful part of the relationship they are in (Shen & Williams, 2010). As a result of this situation, adolescents gradually turn to their phones and lose their sociality. Adolescence is a critical period in which habits take place. Therefore, it can be defined as a very sensitive period and contains many risks within itself.

In this study, the predictors of this behavioral problem defined as phubbing were examined. Since it is considered that phubbing will become a much bigger problem in the future, assertiveness, passiveness and the use of smartphones as predictors in adolescents were examined.

Method

This study is a relational study examining the relationships between the phubbing, assertiveness and passiveness levels in adolescents.

Study Group

The study group comprised of 169 9th (26.7%), 51 10th (8%), 300 11th (46.3%) and 114 12th (18%) grade high school students in a city in Central Anatolia. Randomly selected for the study, participants were volunteer high school students. 430 (67.8%) of the students were female and 204 (32.2%) were male students. Their ages ranged from 15 to 18 (M±SD=16.56±1.06).

Data Collection Tools

Voltan-Acar Assertiveness Inventory: Developed by Voltan-Acar and Öğretmen (2007), Voltan-Acar Assertiveness Inventory measures the assertiveness of university students. In the inventory, there are 17 items for passiveness, and 11 for assertiveness. The inventory consists of 28 items. It is a six-point Likert type measurement tool. The score obtained from this measurement tool ranges between 28 and 168. The high score obtained from the inventory indicates high assertiveness level. The internal consistency coefficient of the inventory was 0.83 for the passiveness dimension, 0.78 for the assertiveness dimension, and 0.87 for the total inventory. Conducting the study with a sample of 35 people for the test-retest technique while developing this measurement tool was reported as one of the inventory’s limitations. For this reason, reexamining the reliability of the test-retest technique by administering the inventory to a larger sample was recommended. Therefore, at a later date, reliability of the inventory was reexamined by using the test-retest technique with a new sample consisting of 113 people. According to the results of this analysis, test-retest reliability was 0.78, a value close to the previous results. This measurement tool showed that aggressiveness and assertiveness were two different concepts. Developed to determine assertiveness levels of individuals, this inventory was found to be a valid and reliable measurement tool (Voltan-Acar & Öğretmen, 2007). In the present study, the internal consistency coefficient of the inventory was calculated using Cronbach’s Alpha method and found to be 0.83.

The Phubbing Scale: The Phubbing Scale is a scale developed to measure the phubbing tendency of individuals. The scale is a total of 10 items with two factors. The factors are Communication disorder (five items; α=.87) and Cell Phone Passion (five items; α=.85). The scale is a 5-point Likert type ranging between Never (1) and Always (5). The lowest and highest scores that can be obtained from the scale are between 10 and 50. The score of 40 and above indicates phubbing addiction of individuals (Karadağ, et al., 2015). In this
study, the internal consistency coefficient of the scale was calculated using the Cronbach’s Alpha method and was found as 0.84.

**Personal Information Form:** Developed by the researcher, the form includes variables such as age, sex, high school, and the type of cell phone used.

**Procedure**

In order to carry out the study, after obtaining the necessary research permission from the provincial directorate for national education, the Assertiveness Scale, Phubbing Scale and Personal Information Scale were administered to high school students during the first semester of 2018-2019 academic year. First, the purpose of the study was explained to the students, and later appropriate environment and time was offered to the students to comfortably fill out the scales. After giving the instructions about the scales, the scales were answered by the students under the supervision of the researcher. The scale administrations lasted about 15 minutes.

**Data Analysis**

In this study, the relationship between the dependent variable and independent variable was examined, and homogeneity (normal distribution) of variance was examined as the first step. Levene test results are p>0.05 for all variables. According to Kolmogorov Smirnov test, p=.20 value was not significant (since p>0.05). The fact that the result is not meaningful indicates that the distribution is normal. The skewness value for all variables was in the range of -0.26 to 0.31, and the kurtosis value for all variables was in the range of -0.14 to 0.30. The fact that the skewness and kurtosis coefficients are close to the limits of ± 1 can be interpreted as scores not showing excessive deviation from the normal (Büyüköztürk, Çokluk & Köklü, 2010). Skewness values between +1 and -1 and Kurtosis values between +2 to -1 are reported to be normal (Huck, 2008). According to this statistical analysis, the sample group of this study has a normal distribution. On the data, t-test was employed for paired comparisons (sex and cell phone type), whereas one-way variance analysis was used for multiple comparisons (school type). Hierarchical regression analysis technique was used for examining whether or not assertiveness predicted the phubbing behavior. During the data analysis, the data were analyzed in terms of outliers. The outliers with Mahalanobis distance value were calculated, and no data with outliers were determined. The fact that binary correlations between the independent variables were at medium level indicated that there was not a multicollinearity between variables. Furthermore, Tolerance and VIF values are within acceptable limits. Durbin-Watson coefficient was used to analyze autocorrelation. Durbin-Watson values were between 1.70 and 1.71. The data were analyzed in SPSS 22 program.

**Findings**

**Pre-Analysis**

The difference between the mean scores of the students’ phubbing total score was not significant according to the sex (t(2432) = -0.93, p>0.05) variable. According to the phone type (t(2432)= 7.56, p<0.05), the difference between the means was found to be significant.

**Table 1. T-Test Results of Adolescents’ Phubbing Scale Scores According to Various Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>X</th>
<th>ss</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>430</td>
<td>23.37</td>
<td>6.41</td>
<td>-0.93</td>
<td>0.36</td>
</tr>
<tr>
<td>Male</td>
<td>204</td>
<td>23.88</td>
<td>6.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cell Phone Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Phone</td>
<td>564</td>
<td>24.19</td>
<td>6.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touch Tone Phone</td>
<td>70</td>
<td>18.24</td>
<td>6.47</td>
<td>7.56</td>
<td>0.00</td>
</tr>
</tbody>
</table>
The difference between the mean scores of the students’ phubbing total score was not significant according to the high school variable \((F_{(3,631)}= 0.53, p>0.05)\). According to this finding, there is no difference between the phubbing scores of adolescents amongst different high school types.

### Table 2. Results of One-Way Variance Analysis of Phubbing Scale Scores of Adolescents According to High School Type Variables

<table>
<thead>
<tr>
<th>High School Type</th>
<th>n</th>
<th>X̅</th>
<th>ss</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>232</td>
<td>23.20</td>
<td>6.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>214</td>
<td>23.65</td>
<td>6.33</td>
<td>0.53</td>
<td>0.58</td>
</tr>
<tr>
<td>A3</td>
<td>188</td>
<td>23.82</td>
<td>6.73</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Correlations Between Variables

Correlation coefficients between the adolescents’ phubbing, and passiveness and assertiveness scores, arithmetic mean regarding the variables and the standard deviation are presented in table 3 and table 4.

### Table 3: Correlation Coefficients Between Assertiveness and Phubbing

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean. ± Sd</th>
<th>CT</th>
<th>P</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>23.54 ± 6.48</td>
<td>0.28*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>113.09 ± 21.38</td>
<td>0.02</td>
<td>-0.45*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*\(p<0.01\)

\(A: Assertiveness, P: Passiveness, CT: Cellphone Type\)

According to Table 3 and Table 4, there was a negative relationship between assertiveness total score and phubbing total score \((r=-0.45)\), whereas there was a significant positive relationship between passiveness total score and phubbing total score \((r=0.44)\). Furthermore, there was a significant positive relationship between phubbing and type of cell phone \((r=0.28)\).

### Regression Analysis Results

Whether adolescents’ assertiveness and passiveness predicted phubbing behavior or not was analyzed using hierarchical regression analysis. Since phubbing scores of high school students differed according to the cellphone type (smartphone – touchtone phone) variable, this variable was redefined as a dummy variable, and then included in the regression analysis. The analysis results are given in Table 5.

### Table 5: Hierarchical Regression Analysis Results Regarding the Prediction of the Phubbing Score by the Assertiveness, Passiveness, and Cellphone Type Scores

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>(R^2)</th>
<th>F</th>
<th>(\beta)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phubbing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Step</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cellphone Type</td>
<td>0.08</td>
<td>57.24*</td>
<td>0.29</td>
<td>-7.56*</td>
</tr>
<tr>
<td></td>
<td>2. Step</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cellphone Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assertiveness</td>
<td>0.28</td>
<td>120.37*</td>
<td>-0.44</td>
<td>-12.97*</td>
</tr>
</tbody>
</table>
Hierarchical regression analysis was employed by including the “cellphone type” variable with assertiveness and passiveness variables, predictors of phubbing. The analysis results revealed that “assertiveness” and “cellphone type” together explained the 28% of the phubbing score, whereas “passiveness” and “cellphone type” together explained the 27% of the phubbing score. These results proved that assertiveness and passiveness are a significant predictor of phubbing behavior. In addition, cellphone type increased the prediction levels of assertiveness and passiveness.

### Discussion, Result and Recommendations

According to the study findings, sex and school type did not affect phubbing behavior in adolescents. On the other hand, whether the cellphone used was a smartphone or not had an effect on phubbing behavior. Studying in different schools did not change adolescents’ phubbing tendency. Similarly, the related literature sis not determine any findings associating school type with phubbing. In terms of sex, scientific literature reported males more selfish than females. Therefore, some literature put forth that sex might affect the phubbing dynamics (Branas-Garza et al., 2018). Parallel to this, there are studies determining that sex affects phubbing behavior. Çizmeci (2017) found that females’ phubbing behaviors were significantly higher than males’. However, parallel to the present study’s data, the literature also shows that sex does not create a significant difference on phubbing (Guazzini, Duradoni, Capelli & Meringolo, 2019).

Instead of increasing social interaction, smartphones can lead to a disorder arising from wrongly or over using internet that is termed phubbing (Davey et al., 2016; Roberts & David, 2016). Our study findings also confirmed that using smartphones affected phubbing behavior. Adolescents using smartphones exhibited more phubbing behavior because smartphones are devices that are virtually active and can be used more functionally than computers (Buckle, 2016). Smartphone addiction is seen as similar to internet addiction (Mok et al., 2014). Categorized under behavioral addictions, phubbing arising from smartphone addiction (Demirci, Orhan, Demirdas, Akpinar & Sert, 2014) is the result of the desire to use internet, social media, games and other applications, which are actively used in these devices (Karadağ et al., 2016). Phubbing has also been observed in non-smartphone users, but is this level was low. The reason is for this is probably because these phone offer limited options.

In the present study, a significant negative relationship was found between phubbing and assertiveness. In addition, assertiveness is a significant predictor of phubbing behavior. Phubbing behavior decreases as individuals behave assertively. Low level of assertiveness is a significant predictor of internet addiction (Dalbudak et al., 2015). The relationship between assertiveness and phubbing, and the relationship between phubbing and internet should be taken into consideration together because internet addiction has been found to be an important predictor of phubbing behavior (T’ng et al., 2018; Karadağ et al., 2016). The risk of phubbing is particularly the result of smartphone and internet application on these devices. Increasing Internet addiction also means increasing phubbing behavior.

Assertiveness is an important characteristic for adolescents to express themselves feeling comfortably in different settings (Shanmugam & Kathyayini, 2017). Moreover, assertive people are individuals who can express their feelings clearly and comfortably, and do not shy about exercising their rights (Voltan-Acar,
The fact that an individual acts open-minded without being passive is also an important determinant of phubbing behavior (T'ng et al., 2018). Assertiveness skills are essential for effective communication and successful relationships because active listening is an important component of assertiveness (Skeen, McKay, Fanning & Skeen, 2016). However, individuals cannot be good listeners unless they are assertive in their social relationships, and they prefer smartphones instead of social communication. As a result, phubbing trend increases with the use of smartphones and the Internet. Starting from this, it can be said that it is important to ensure that individuals acquire assertive qualities in order to reduce their phubbing behavior, the digital disease of our time. On this issue, the responsibility lies with those responsible for the education of the child, especially the family. Opposite of assertiveness, passiveness arises from a decrease in assertiveness. The findings of this study show that there is a significant positive relationship between passiveness and phubbing. Passive characteristics in an individual increase the frequency of phubbing. There is a strong negative relationship between high level of phubbing, and self-esteem, meaningfulness of existence, sense of control, positivity, and quality of communication. Since these variables also have a positive relationship with passiveness and negative relationship with assertiveness, they support the findings of the present study. Negativity increases phubbing (Chotpitayasunondh & Douglas, 2018). These results support the conclusion that shows the effect of passiveness, which is a negative variable, on phubbing behavior. Furthermore, it was determined that adolescents with high levels of assertiveness have high levels of self-esteem. In addition, as self-esteem increases, phubbing decreases (Chotpitayasunondh & Douglas, 2018). Assertive people have high self-esteem. Moreover, adolescents with high levels of assertiveness also have high levels of self-esteem (Tagay, Önen & Canpolat, 2018). Since increase in self-esteem will increase assertive behaviors, it will decrease phubbing tendencies.

However, it is seen that phubbing, the phenomenon of today's society, continues to increase. Every day, many people face the fact that the people they communicate with are busy with their phones. If a person has been exposed to phubbing, he or she will perceive this as rude and will feel rejected by his counterpart (Turkle, 2011). If the person continues to do so, it will be inevitable that he or she will have problems in every area. In the field of education, the issue of phubbing is much more sensitive. In a study, 62% of students stated that they used electronic media for non-academic purposes while studying, reading or preparing their homework (Jacobsen & Forste, 2011). This is the harbinger of the danger awaiting children and adolescents.

Although it is seen that individuals are aware of the negative effects of phubbing, they exhibit phubbing behaviors in environments where they can socialize. Phubbers state that when they cannot use their smartphones, they become curious, anxious, worried, unhappy, angry and depressive (Gökdağ, 2018). This proves that phubbing is a psychopathological risk factor. This finding shows that the technology that is aimed at liberating individuals might deviate from this objective and might have a function that is contrary to its original purpose (Aydoğdu-Karaaslan & Budak, 2012). Therefore, if there are no restrictions on the use of the cellphones for children and adolescents, the behavior of phubbing will be unavoidable for them in the future. As a result, phubbing behavior is a behavior that negatively affects communication, and if we do not realize the seriousness of this problem, it will have a much greater negative impact on our relationships and mental health (Gökdağ, 2018). Since there is not enough illuminating study on this subject in the literature, it is important to examine this issue and the variables affecting it. Especially children and adolescents should be made aware of this issue. Parents may restrict children's use of cellphones, especially at an early age. Programs related to this issue might be added to the guidance and psychological counseling services in schools. The public authorities might prepare a public service announcement. Psycho-education programs aiming at gaining characteristics that make the individual assertive and reduce their passiveness might be prepared.

This study is limited with the study data. The study data can be improved with samples having different socio-demographic characteristics. The results should be interpreted in terms of samples with similar characteristics. One of the limitations of the study is that the study was conducted in one city and with a small number of high school types.
GENİŞLETİLMİŞ ÖZET

Problem Durumu ve Araştırmanın Amacı


Yöntem

Sonuç, Tartışma ve Öneriler

Araştırmadan elde edilen bulgulara göre cinsiyetin ve okul türünün sosyotelizm üzerinde etkili olmadığı; fakat kullanılan telefonun akıllı telefon olup olmamasının sosyotelizm üzerinde etkili olduğu görülmüştür. Sosyotelizm güvengenlik ile negatif yönlü, çekingenlik ile pozitif yönlü anlamlı bir ilişkiye sahiptir. Araştırmada hem güvengenliğin hem de çekingenliğin sosyotelizmin anlamlı yödayıcısı olduğu saptanmıştır. Sosyotelizm davranışını açıklamada güvengenlik, çekingenlik ve kullanılan telefon etkilidir.


Bu çalışma araştırma verileriyle sınırlıdır. Farklı sosyo-demografik özelliklere sahip örneklemelerle araştırma verileri geliştirilebilir. Sonuçlar benzer özelliklere sahip örneklemeler açısından yorumlanmalıdır. Çalışmanın bir ilde ve az sayıda lise türünde yapılması araştırmanın sınırlılıklarındadır.
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