Abstract

The current study identifies the possible implications of using online dating platforms in terms of self-esteem and exposure to the online environment. It also wants to capture possible differences between people who use this type of platform and those who do not. The participants in the study were 584, aged between 18 and 30 years. As tools, the Rosenberg Self-Esteem Scale, Real Me Scale and Online Dating Inventory were used. All of these tools have been introduced into Google Forms and distributed online. Following the study, we identified that there are differences between those who use online dating platforms and those who do not, when it comes to the level of self-esteem and the degree of self-expression in the online environment. Moreover, a link was found between the level of self-esteem and the degree of revelation of the "true self" in the virtual environment.

Keywords: online dating, self-esteem

Introduction

Since the advances of technology and of the Internet, many aspects of our daily lives have changed. Technology has become a part of our daily lives. The Internet and mobile phones offer support in professional and professional activities, facilitating communication (Tudorel & Vintila, 2020; Tudorel et al., 2019; Vintilă et al., 2018). However, in order for the Internet not to be overused, it is important to have a good social and personal communication, to have both
online and offline social support (Tudorel & Vintilă, 2018). This has also happened in the case of interpersonal relationships, especially around the idea of a love affair and how relationships are formed. Even in the last 15-20 years, online dating platforms have significantly changed the meeting environment (Finkel, 2012). We must accept these changes and recognize that the Internet is now so widely used that the online population is becoming more and more like the offline population (Gavrila-Ardelean & Gavrila-Ardelean, 2018). As a result, patterns that appear in the offline world are increasingly appeared in online life (Valkenburg & Peter, 2007).

According to a website, 6% of the adult population in the United States said in April 2020 that they currently use online dating services, and 21% said they used it at some point (Statista.com, 2020). Simultaneously, an article from the Pew Research Center (pewresearch.org, 2020) showed that in 2019, 30% of the American population used online dating platforms, of which 23% went out to meet people they previously met through these platforms and 12% had serious romantic relationships or married people they met through this environment. Valkenburg and Peter (2007) conducted a study on 367 adults in Germany, and 43% of participants reported accessing a dating site to get a date or find a romantic partner. As it can be seen, a considerable number of Internet users also appear in the area of online dating platforms.

The results of several studies reported a frequency of using online dating services. At the same time, during the last years, the psychological characteristics that could be involved in this behaviour were researched. Many of these studies have been based on identifying personality traits present in those using online dating applications (Clements, Atkin & Krishnam, 2015; Pernokis, 2018; Gavrila-Ardelean, 2008; Timmermans & de Caluwe, 2017; Orosz et al. 2018, Correa et al., 2010). There are also studies based on the identification of other psychological characteristics involved in this phenomenon, such as: self-esteem (Kim et al., 2009; Artez et al., 2010; Bryant & Sheldon, 2017, Valkenburg et al., 2006, Blackhart et al., 2014), well-being (Gavrilă-Ardelean, 2017; Valkenburg & Peter, 2007; Pernokis, 2018; Valkenburg et al., 2006), self-presentation Ranzini & Lutz, 2016; Rosanna et al., 2012, Ellison, 2006). Also, there is an interest in identifying the reasons why these platforms are used (Orosz et al., 2018; Davis, 2015; Timmermans & de Caluwe, 2017, Sumter at al. 2017; Bryant & Sheldon, 2017).

Considering the ones listed above, we can say that there is an interest in this topic and a curiosity for the motivations and psychological aspects that underlie the use of online dating services. We believe that investigating these issues is necessary, since the number of users is
growing and the part of romantic relationships is for many people one of the most important things in their lives.

Another important aspect regarding the realization of this paper is the lack of specialized literature of articles and studies conducted among the population of Romania on this subject.

When it comes to online dating platforms, they can be divided into two categories: online dating sites (accessed from a web browser) and mobile dating applications (accessed over the phone or tablet). The latter is often location-based, easier to use and is associated with “hooking up” (Bryant & Sheldon, 2017 apud. Stewart, 2015). The use of specialised terms is still quite problematic, as different specialists use different terms to speak about online dating and what exactly they understand by using these terms. Informal language used by persons using online dating is variate, so that professionals should agree about a common language, common terms to be used in the formal professional language (Goian, 2004, 2010, 2012).

Online dating platforms offer three categories of services: access, communication and matching. Access refers to the exposure of users to potential romantic partners, but also to the opportunity to evaluate them (Finke et al, 2012). User exposure is done through a profile that everyone creates. Creating profiles is done depending on the site or application. Many of these platforms have thousands or billions of users, so online dating platforms offer access to a greater number of potential partners than in real life.

Communication refers to the user's ability to use different forms of computer-mediated communication (CMC) to interact with potential partners before meeting them traditionally (Finke et al, 2012).

Matching refers to a mathematical algorithm that identifies potential partners for each user. These “matches” are presented to the user as potential partners with whom there are high chances of positive romantic results (Finkel et al, 2012).

In this paper, we will define online dating as Bloom (2016) which states that they represent "the use of any site or mobile application where a person can create a profile and connect with other users as potential romantic partners for the purpose of sexual dating or the formation of romantic relationships”.

Self-esteem is defined by Rosenberg, (1965) as "the positive or negative attitudes that a person has about himself.". In a study by Kim, Kwon and Lee (2009), they evaluated three characteristics of users of online dating platforms, namely: self-esteem, involvement in romantic
relationships and sociability. The results show that people who consider romantic relationships less important and have low self-esteem are more willing to use online dating services than people with high self-esteem. In terms of sociability, the results showed that people with high sociability and self-esteem used these services more than those with low self-esteem, but the latter considered romantic relationships to be important (Kim, Kwon & Lee, 2009). Another study by Artez and colleagues (2010) to determine the psychological characteristics that predict the use of online dating services shows that people with low self-esteem are more to use online dating platforms than those with higher self-esteem.

Mehdizadeh (2010) in his study on how self-esteem and neuroticism manifest in the use of Facebook presents results that claim that people with low self-esteem are more active in using online social networks. Similar results have been obtained by other researchers (Blackhart et al., 2014 apud. Forest & Wood, 2012), who concluded that people with lower self-esteem are more to perceive the online environment as a place safer to express himself. One interpretation that Blackhart and the team (2014) stated in these two studies is that in addition to using social networks, people with lower self-esteem may be even more likely to use online dating platforms, “because people with lower self-esteem may see online dating platforms as a safer place to look for and try attracting a potential romantic partner. ”

Based on previous studies, this research examines the links that may exist between the use of online dating platforms and self-esteem. In addition, another aim of this paper is to investigate the possible differences between those who use these types of platforms and those who do not, when it comes to the level of self-esteem. Therefore, the hypotheses underlying this study are:

H1: There is a correlation between self-esteem and the use of online dating platforms.
H2: There are differences between those who use online dating platforms and those who do not when it comes to self-esteem.

**Methodology**

**Design**

To test the hypotheses of this research, we chose a cross-sectional design. Thus, we collected data from a sample from the reference population, only once.
Participants

The sample of this study consisted of 591 participants, of which 540 women (91.37%) and 51 men (8.63%). The participants were people aged between 18 and 30 years (M = 21.67), the age range being a main eligibility criterion. The reason why we chose this age range is the fact that during this period of late adolescence and the first part of the young adult stage there is a curiosity to use these platforms and to find a partner. For instance the study by Pew Research Center (2020) comprised 48% of participants aged between 18 and 29 who used online dating platforms, the highest percentage of users falling into this age range.

Of the total number of participants, 340 (57.53%) used dating sites or applications and 251 (42.47%) did not. Of those who used these platforms, 76 people (21.71%) met their partner through dating sites or applications.

Regarding marital status: 189 (31.98%) were single, so they were not engaged in a serious relationship. We also had the option of “alone (meeting someone)” from the percentage of single people 21.69% (41) picked this answer.

Regarding sexual orientation: 89.51% (529) declared themselves heterosexual, 1.18% (7) homosexual, 9.14% (54) bisexual, and one participant declared pansexual.

It is important to note that although this study investigates the psychological factors involved in online dating platforms (site or mobile applications), most respondents to this study reported the use of mobile dating applications and few uses of websites.

Research instruments

To measure self-esteem, we used the Rosenberg Scale of Self-Esteem (RSS) (M. Rosenberg, 1965) with a high internal consistency in our group of participants (α = .89). This questionnaire contains 10 items that are answered on a Likert scale from 1 to 4 (1 = strong disagreement, 4 = strong agreement). Items 2,5,6,8 and 9 need to be recoded. The final score consists of the sum of all items and can vary between 10, which indicates a low level of self-esteem, and 40, which indicates a high level of self-esteem.

To measure the use of online dating sites and online dating behaviours, we used Online Dating Inventory (ODI) (G.C. Blackhart et al., 2014). The questionnaire consists of 10 questions of which only the first 9 use in the final score. The questions have different ways of answering: there are 4 items (item 1,2,3 and 8) with a dichotomous answer (No = 0, Yes = 1), and the rest of the questions are with multiple answers which are quoted according to the answer with a value
between 0 and 2. For questions 5 (Which (if any) of the following online dating sites or dating applications have you used?) is marked with a point each application/site used, and if does not use such applications/sites is marked with 0. Given these, the maximum score can be from 23 plus how many applications/sites he uses, and the minimum score is 0, indicating that the respondent does not use and does not present behaviours related to this phenomenon. The internal consistency in this scale is high ($\alpha = .89$).

Question 10 (“What is your reason for using an online dating site/application as a means of finding a romantic partner (select all that suit you)?”) From the Online Dating Inventory, is a question with multiple answers, but which can be answered freely and consists in identifying the reason or reasons for which these platforms are used. This question is not scored in the final score but is for informational purposes only.

In the demographic data collection section, participants were asked to provide data on gender, age, educational level, marital status, sexual and religious orientation, to what extent they attend church, and how often they use the Internet. We also introduced a question that determined how many participants met their partner through dating sites or applications? (If you are in a relationship_married, have you met your partner through dating sites or applications?).

**Research procedure**

The tools were put together in Google Forms, and each participant completed the form online. The forms were distributed online and were open for a month, and the only eligibility criteria were the age, which had to be between 18 and 30 years. The completion of the questionnaire took approximately 15 min.

Out of the total number of responses (603) we used 591 because some respondents did not meet the eligibility criteria.

**Results**

For the statistical analysis of the database related to this study, we used the program SPSS Statistics V25.0.

**Preliminary descriptive analysis**

Six hundred three participants completed the study tasks. Of the total number of participants, 12 did not fall into the age range (18–30 years) and were eliminated from the statistical analysis. In addition, following the descriptive analysis, we identified 7 extreme values
that were excluded from the analysis. Thus, we reached the number of 584 participants based on which we performed statistical analysis.

**H1: There is a correlation between self-esteem and the use of online dating platforms.**

We performed the Pearson correlation to test whether there is a correlation between self-esteem and the use of online dating platforms. In making the correlation we used the scores from the RSS scale and all the scores from ODI. A statistically insignificant negative relationship was identified ($r (582) = -.05$, $p = .17$, $p > .05$).

Based on this analysis, the hypothesis is not supported, but we made an additional analysis to see if there could still be a relationship between the two concepts when it comes to only those who already use these platforms. Because what interests us is to identify a relationship between the level of self-esteem and the use of online dating platforms, we will perform the same statistical analysis, but only on the group of users of this type of platform.

Thus, we performed the Pearson correlation to test whether there is a correlation between self-esteem and the use of online dating platforms taking into account only participants who reported using such platforms. In performing the statistical analysis, we used the RSS and ODI scores of the platform users. Following the analysis, it was identified that the stated hypothesis is not supported.

**Table 1: Descriptive statistics and correlation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$N$</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.ODI</td>
<td>584</td>
<td>.49</td>
<td>.019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.RSS</td>
<td>584</td>
<td>3</td>
<td>.026</td>
<td>-</td>
<td>-</td>
<td>-.25**</td>
</tr>
</tbody>
</table>

Note: $p<.001$ **; ODI=Online Dating Inventory; RSS=Rosenberg Scale of Self-Esteem

**H2: There are differences between those who use online dating platforms and those who do not when it comes to self-esteem.**

By testing the assumptions, we noticed an extreme score on the group of those who do not use online dating platforms, which are why we eliminated the score of a participant from this analysis.

We applied the t-test for independent samples to determine if there is a difference between those who use online dating platforms and those who do not when it comes to self-esteem. The non-using group ($N = 248$, $M = 3.09$, $SD = .60$) showed a higher level of self-
esteem than the using group (N = 335, M = 2.94, SD = .65). Following the analysis, Levene’s test came out significantly (p = .047), so the homogeneity criterion is not met and we cannot use the t tests for independent samples. Given this, we will use the Welch’s U test. According to Skovlund, E., & Fenstad (2001), if neither the variance nor the size of the groups is equal, the most appropriate method is the Welch’s U test. The results of this test can be found in the “Equal variances not assumed” line of the t-test analysis for independent samples. Considering the above information, the differences between these groups are statistically significant t (553.44) = 2.75, p = .06, with a huge effect size (Cohen d = 1.17).

**Tabel 3.** Descriptive and comparative statistics between the group using online meeting platforms and the group not using

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th></th>
<th>Group 2</th>
<th></th>
<th>t(553.44)</th>
<th>d of Cohen</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSS</td>
<td>3.09</td>
<td>.60</td>
<td>2.94</td>
<td>.65</td>
<td>2.75</td>
<td>1.17</td>
</tr>
</tbody>
</table>

Note: Group 1 = those who do not use online dating platforms; Group 2 = those who use online dating platforms; RSS = Rosenberg Scale of Self-Esteem

**Discussions**

**Interpretation of results and relationship with other studies**

The main objective of the study was to test possible factors involved in the use of online dating platforms. According to the results presented in the previous paragraph, the first hypothesis of the study (hypothesis H1) was not supported. Therefore, no link was identified between the level of self-esteem and the use of online dating platforms.

This result is in contradiction with the specialized studies presented previously. The results may be different due to different samples of participants. In this paper, all participants were aged between 18 and 30 years (M = 21.67), but in the paper of Kim et al. (2009), the age of the participants was between 19 and 89 years (M = 48), and their sample was much larger (N = 3345). The same difference related to the age of the participants is found in the comparison of this study with the study by Artez et al. (2010), reporting an age range of 17 to 69 years (M = 32.13). Another aspect that could be related to this contradiction in the results could be the different cultural environment. The research conducted by Kim and colleagues in 2009 is on the American population, and the work of Artez et al. (2010) is performed on a sample from Germany. The study by Bleidorn et al. (2016) on the influence of age and gender on self-esteem,
was conducted in 48 countries (including Romania, Germany and the United States) to see intercultural differences. Their results show that men (regardless of the country they belong to) have a higher level of self-esteem compared to women. Moreover, it has been identified that with age, the level of self-esteem increases and there are significant differences between the level of self-esteem of people under 45 years compared with those over 45 years. Regarding the level of self-esteem for the three countries involved in the discussion, Bleidorn and colleagues (2016) identified similar values: the United States and Romania have close averages of self-esteem, and Germany has a lower level but insignificant. Therefore, due to the particularities of the participants in each study related to age, gender and culture, this difference is observed between our results and the previous ones.

Hypothesis number 2 (H2) is supported and shows differences between the two groups in terms of self-esteem. In other words, it has been identified that people who use online dating platforms have a lower level of self-esteem than those who do not. In the study by Artez and his collaborators (2010) it was identified that there were no significant differences between users of online dating platforms and non-users when it comes to the level of self-esteem. The reasons for a contradiction in these results are the different characteristics of the samples (number of participants, age range, sex distribution and culture). These aspects were explained in the presentation of the results from the second hypothesis.

**Limits and future directions**

An aspect of the study limitation is related to the large number of female participants. Because our sample included only 8.63% men, the results cannot be generalized. Thus, we cannot say that these results are representative of the Romanian population.

Another area of research would include identifying differences between women and men when it comes to psychological issues in using online dating services, such as self-esteem, self-disclosure, motivation to use, loneliness, and the importance of love relationships.

**Conclusion**

As we said at the beginning of the paper due to the fast rhythm in which technology occupies a large part of the fields in which we operate, both professionally and personally, an aspect that can be noticed in the growing number of people who use online dating platforms. These platforms impact the way people form relationships and on the meeting environment (Finkel, 2012). Therefore, this study identified the relationships that may exist between the use
of online dating platforms and the concepts of self-esteem. Also, a second objective was to capture the possible differences between those who use these types of platforms and those who do not when it comes to self-esteem.

Despite the existing limitations, we can also notice the existence of some contributions of this study to the extension of the scientific resources related to this topic. This paper brings new information about users of online dating platforms in Romania. In other words, evidence has been provided that users of online dating services have lower self-esteem compared to those who do not use these services. The results highlight the characteristics of users of online dating platforms and help us identify the factors that may determine the use of these services in the future.

References


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