RELATIONSHIP BETWEEN SOCIAL NETWORK USE AND SELF-ESTEEM AMONG PRE-SERVICE TEACHERS

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Abstract

Nowadays, many millions of people around the world are connected by being members of various Internet social networks. Studies have shown a connection between the individual personality of the user and the way he or she behaves online, however existing research on the relationships between SNSs and people's self-esteem tends to be limited in the Czech Republic. The aim of the research focuses the relationship between the self-esteem, the time spent on social network sites and number of friends on the friends list of the users. The participants were 774 pre-service teachers aged 19-26. To determine the empirical data we used the following research methods: Rosenberg Self-Esteem Scale and Sociodemographic questionnaire. The obtained results indicate a negative relationship between the self-esteem and the time spent on social network sites among the pre-service teachers. Gender differences were found as well.

Keywords: Social networks sites, Self-esteem, Internet.

1 INTRODUCTION

Today social networks represent an important tool of interpersonal communication between young people which enables users to share, create and distribute information. Millions of people around the world are part of the virtual environment as users of different virtual social networks. People use social networks in the sense of self-presentation and to create and maintain contact with other people [1,2]. Personal profiles, another typical characteristic of social networks, are common on sites designed for friendship.

Boyd and Ellison [3] define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections.

What makes social network sites unique is not that they allow individuals to meet strangers, but rather that they enable users to articulate and make visible their own social networks. On many of the large SNSs, participants are not necessarily “networking” or looking to meet new people; instead, they are primarily communicating with people who are already a part of their extended social network [3]. Internet is a place where we do not need to be uniquely identified with what we do in the virtual space. We can behave differently than we would actually behave, which can incite experimentation with our own identity [4].

So far the largest groups of social network users are adolescents (73%) and young adults aged 18-29 (72%). Only 40% of adult Internet users (aged 30 and older) has or had a profile on a social network [4]. A typical user spends an average of 20 minutes on Facebook and two thirds of them log on at least once a day [2]. In the Czech Republic the number of social network users is around 3,000,000, specifically, with 37.4% of users over the age of 16 [6].

The researchers identified two main ways of using online social interaction. One of them is that users can find other people with similar interests, which can lead to romantic relationships on the social networks [7, 8]. Another important use is to maintain the existing social connections [2]. Most users use social networks for contact with people they already know [5]. Furthermore, it was found that although many relationships are at first created through social networks, this initial contact continued in real life [9].

In connection with the use of the Internet and social networking sites there are a number of difficulties and problems that are associated mainly with its excessive use. Such abuse can lead to various interpersonal difficulties. It was found that excessive use of the Internet is positively correlated with social anxiety [10]. Socially anxious and introverted people tend to avoid face to face communication.
and prefer the Internet as a tool to establish relations [11]. Some studies also confirm the relationship between excessive internet use and loneliness [10, 12, 13], while others deny this relationship [14].

A wide range of researches point to a link between the personality dispositions of the users and the way they behave and present themselves in a virtual environment. However, previous research on the relationship between the social networks, life satisfaction and self-concept are insufficient in the Czech Republic. Acceptance by their peers and positive feedback of their own self are very important factors for social networking that may affect the development and level of the social self (self-esteem) as well as the life satisfaction of the individuals. In other words, if the Internet has the power to affect the self-esteem and life satisfaction of adolescents, it's probably as a result of social networks [15]. Valkenburg, et al. [16] emphasis that social self-esteem and well-being (including life satisfaction) are more likely to be affected if the Internet is used for communication than for information seeking.

The self-esteem of the individual is sensitive to the appreciation of others, even in a virtual environment [17]. Recent research has also revealed a neurobiological level response. Specifically, the considerable activation of the neural regions involved in reward processing upon receiving a social response in the form of "Like" to photos on social networks [18].

In the last decade, when the Internet has become a normal part of most people's leisure time, researchers began to track the impact of Internet use on life satisfaction and self-esteem. Some studies demonstrated a negative relationship [27, 20], a further study proved positive [16,19] and there are such studies where there was no association between these variables [21,22].

In the longer term, there is usually a deepening in social isolation and low self-esteem [23]. Nevertheless, the Internet, according to Blinka et al. [24], is not the source of any of these consequences, but rather their mediator. Although it appears the Internet use can be problematic, which is, according to numerous studies associated with interpersonal difficulties, that there is still a lack of empirical interpretation of how and why did this relationship between problematic Internet use and interpersonal difficulties arise [25].

2 METHODOLOGY

The aim of the research focuses on the relationship between the self-esteem, the time spent on Social Network Sites and number of friends on the friends list of users. The research sample comprised of 774 pre-service teachers (average age 25 years, SD 7, 1), 667 females and 107 males. The study was performed in 2016. To determine the empirical data we used the following research methods: Rosenberg Self-Esteem Scale and Sociodemographic questionnaire. Cronbach’s alpha was used to verify internal consistency of the scales. A high degree of reliability between 0.74 and 0.82 was determined.

Rosenberg self-esteem scale is an instrument that was conceived by Morris Rosenberg in 1965 as a one-dimensional construct that provides information about the global relationship to itself [26]. The scale was originally designed for adolescents, later extended to the entire population. The scale contains 10 questions with a total score of between 10 - 40 points.

The Sociodemographic questionnaire included questions such as age, gender, major and minor issues related to the use of social networks.

Statistical data processing was performed using procedures corresponding to the predefined interpretation design. Initial data processing included the calculation of significant values of descriptive statistics, especially the arithmetic mean, standard deviation, analysis of variance and mean error. When the analysis of result distribution did not confirm normal data the Spearman correlation was used.

3 RESULTS

The results of Table 1 show a negative correlation ($r = -0.39$) between the age of the pre-service teachers and the time spent on Social Network Sites (significance level 0.01). With increasing age of the young people the time spent on SNS is lower. It raises the question if the reason is associated with increasing study demands or there is different explanation. On the other hand, the results show a negative correlation between the number of friends and the age of the future teachers ($r = -0.35$). It means that younger people spent more time using the social networks and therefore have more
friends listed on SNSs. A positive correlation was found between the time spent on SNSs and the number of friends on the friends lists of the users $r = (0, 42)$.

**Table 1. Correlation of variables of the total set of pre-service teachers.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age</th>
<th>Rosenberg</th>
<th>Time</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1,000000</td>
<td>0,031810</td>
<td>-0,396721*</td>
<td>-0,359243*</td>
</tr>
<tr>
<td>Self</td>
<td>0,031810</td>
<td>1,000000</td>
<td>0,018500</td>
<td>0,014630</td>
</tr>
<tr>
<td>Time</td>
<td>-0,396721*</td>
<td>0,018500</td>
<td>1,000000</td>
<td>0,422654*</td>
</tr>
<tr>
<td>Friends</td>
<td>-0,359243*</td>
<td>0,014630</td>
<td>0,422654*</td>
<td>1,000000</td>
</tr>
</tbody>
</table>

Legend: * $p<0.05$; ** $p<0.01$; ***$p<0.001$

Table 2 presents the results of correlation of the chosen variables in young women. The results are similar to the results of the whole set of pre-service teachers. Once again there was a negative correlation between the age and the time spent on Social Network Sites ($r = -0.40$) which confirms the fact that with age the amount of time spent on various social networks is weaker. Once again a positive correlation was detected among the number of friends and the time spent on social networks ($r = 0.41$). There weren’t found any significant correlations between the self-esteem and the chosen variables.

**Table 2. Correlation of variables among women.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age</th>
<th>Rosenberg</th>
<th>Time</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1,000000</td>
<td>0,029532</td>
<td>-0,407216*</td>
<td>-0,353573*</td>
</tr>
<tr>
<td>Self</td>
<td>0,029532</td>
<td>1,000000</td>
<td>-0,036731</td>
<td>-0,017819</td>
</tr>
<tr>
<td>Time</td>
<td>-0,407216*</td>
<td>-0,036731</td>
<td>1,000000</td>
<td>0,416099*</td>
</tr>
<tr>
<td>Friends</td>
<td>-0,353573*</td>
<td>-0,017819</td>
<td>0,416099*</td>
<td>1,000000</td>
</tr>
</tbody>
</table>

Legend: * $p<0.05$; ** $p<0.01$; ***$p<0.001$

Table 3 shows slightly different results of the chosen variables in young men. A negative correlation was confirmed between the age and the amount of time spent on Social Network Sites ($r = -0.33$). In contrast to the previous results of the whole sample and the women a significant positive correlation was found between self-esteem and the time spent online ($r =0, 35$) and the number of friends on the friends list ($r =0, 21$). We can say that the time spent on social network sites and longer friends list has an impact on the positive self-esteem of the young men.

**Table 3. Correlation of variables among men.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age</th>
<th>Rosenberg</th>
<th>Time</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1,000000</td>
<td>0,063120</td>
<td>-0,335559*</td>
<td>-0,415214*</td>
</tr>
<tr>
<td>Self</td>
<td>0,063120</td>
<td>1,000000</td>
<td>0,353928*</td>
<td>0,211033*</td>
</tr>
<tr>
<td>Time</td>
<td>-0,335559*</td>
<td>0,353928*</td>
<td>1,000000</td>
<td>0,454367*</td>
</tr>
<tr>
<td>Friends</td>
<td>-0,415214*</td>
<td>0,211033*</td>
<td>0,454367*</td>
<td>1,000000</td>
</tr>
</tbody>
</table>

Legend: * $p<0.05$; ** $p<0.01$; ***$p<0.001$

The Tab.4 below presents the similarities and differences between the samples of female and male pre-service teachers in the dimensions of self-esteem, number of friends on the social network sites and time spent online.
Table 4. Gender differences in the chosen variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Women</th>
<th>Men</th>
<th>U</th>
<th>Z</th>
<th>p-value</th>
<th>Z-corr.</th>
<th>p</th>
<th>N women</th>
<th>N men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosenberg</td>
<td>260302,5</td>
<td>39622,50</td>
<td>33844,50</td>
<td>0,857</td>
<td>0,392</td>
<td>0,865</td>
<td>0,386</td>
<td>667</td>
<td>107</td>
</tr>
<tr>
<td>Time</td>
<td>258969,5</td>
<td>40955,50</td>
<td>35177,50</td>
<td>0,236</td>
<td>0,813</td>
<td>0,237</td>
<td>0,812</td>
<td>667</td>
<td>107</td>
</tr>
<tr>
<td>Friends</td>
<td>258520,5</td>
<td>41404,50</td>
<td>35626,50</td>
<td>0,0268</td>
<td>0,979</td>
<td>0,027</td>
<td>0,978</td>
<td>667</td>
<td>107</td>
</tr>
</tbody>
</table>

Legend: * p<0.05; ** p<0.01; ***p<0.001

A statistical test of the significance of the differences between the female and male future teachers did not confirm any differences in the dimension of self-esteem, the time spent on SNSs as well as the number of friends on their friend’s lists.

Our results suggest that acceptance by peers and positive feedback are very important factors for social networking that may affect the development and level of self-esteem (the self-esteem) and life satisfaction of the individuals. Similarly to research of the self-esteem and life satisfaction in 2002 [19] our results confirmed a positive relationship between these two variables.

Similar findings came with Valkenburg et al. [16] where they found that the frequency with which adolescents used social network sites had an indirect effect on their social self-esteem and well-being. Positive feedback enhanced the adolescent’s social self-esteem and well-being, whereas negative feedback had the opposite effect. Other studies suggest that the intensity of using social network sites and positive self-presentation may enhance the user’s subjective well-being or life satisfaction [28, 29]. Recent studies support these relations on a neurobiological level and reveal the activation of neural regions involved in the so-called reward processing [18].

Our study revealed a positive fact that with increasing age reduces the need for individuals to spend time on social networks for both men and women. The question remains whether this fact was also found in not studying population and if this might be associated with increasing study requirements in the higher years of the university studies.

An interesting find seems to be that male students' self-esteem was likely affected because of positive feedback they receive on social networks. Among young women, a statistically significant association wasn't found between time spent on social networks, the self-esteem and intensity of use of the social networks and life satisfaction.

Limitations

There is a great potential in forming other working hypotheses with the present results and their subsequent verification, primarily, when comparing to non-studying population and secondly, with the sample of students that will be more equal regarding gender. The fact of a decreasing tendency of people using social network sites with increasing age should be confirmed on a larger sample of students and compared to the non-studying population.

4 CONCLUSIONS

Considering the present results of the current pre-service students we conclude that:

- In the monitored sample of pre-service teachers, the intensity of time spent on social networks decreases with age.
- Considering gender differences, while female students showed no link between self-esteem and time spent on social networks whereas with male students a positive significant relationship between self-esteem and the intensity of use of the social networks was proved.
- The obtained results will be further used in ongoing research focused on this issue.

In conclusion it should be noted that monitoring the issue of psychosocial factors in relation to the use of the social networks and even the virtual environment is and will remain an actual topic that deserves more attention in the Czech Republic since the so-oriented research is still limited.
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REFERENCES


