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SELF-REGULATION AND SOCIAL NETWORK SITES USE AS A FACTORS OF ACADEMIC MOTIVATION

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Abstract

The development of Social Network Sites (SNS) leads to changes in everyday life and behavior of young adults. Recent studies mentioned the association between SNS addiction and deficits in self-control and regulation and adverse impacts on well-being and emotional states. The problem of this study is to reveal the relations between the Intensity of SNS use and SNS Intrusion and self-regulation features as well as the associations with academic motivation. The sample consists of 197 undergraduate students aged 18-24. The Intensity of SNS use and SNS Intrusion, self-regulation parameters, emotional regulation features (cognitive reappraisal and suppression), and academic motivation (internal, external motivation, and amotivation) were measured. For the data analysis was used correlations and regression analyses. The findings concerning the SNS behavior are the following: the intensity of SNS use has age, sex, and self-regulation of activity as significant predictors; sex and self-regulation of activity reveal as predictors for the SNS Intrusion. Personality factors of self-regulation are not associated with SNS frequency use and addiction. In contrast, internal motivation associates with the Intensity of SNS use, and external motivation and amotivation are positively linked with SNS Intrusion. Thus, the lack of self-regulation increases the adverse effects of SNS use, especially for women. The intensity of social network use increases, and the Social Network Sites addiction features decrease internal motivation.

Keywords: Self-regulation, emotional regulation, academic motivation, online social network sites, students.

1. Introduction

Nowadays, online social network sites are part of everyday life for most people, especially for students and young adults. Despite the variety of positive effects like social support, effortless communication, and the possibility of always being in touch, the adverse outcomes appear. The frequency of social network sites uses leads to loss of emotional connections, procrastination, and dependency. The addictive behavior in the usage of social network sites may be the reason for self-esteem diminution, external motivation increase, and the dependency symptoms growth. The present study tries to reveal the association between self-regulation and Online social network sites use as a factor of academic motivation among students.

1.1. Online social network intensity and intrusion

The term Intensity refers to the studies of N. Ellison and colleagues. They create a Facebook intensity scale for a testing hypothesis about the links between social capital and Facebook use (Ellison et al., 2007). Generally speaking, Intensity refers to the Facebook activity; it describes the amount and frequency of contacts, the emotion, and the feel of a community. Facebook usage was found to interact with measures of psychological well-being, suggesting that it might provide more significant benefits for users experiencing low self-esteem and low life satisfaction. The frequency of Facebook uses also was found to be a positive predictor of Facebook addiction (Busalim et al., 2019).

The other term – Intrusion, appears about Facebook also. Facebook Intrusion, referred to as problematic Facebook use, or Facebook addiction, is described as an excessive attachment to Facebook that negatively impacts on everyday life. Online social network sites addiction may be defined as being overly concerned about social media, driven by an uncontrollable motivation to login to or use social media, devoting so much time and effort in social media that it impairs other important life areas (Griffiths, 2005). Various studies have highlighted the possible detrimental impacts of excessive Facebook use and Facebook addiction on an individual's general well-being, anxiety, depression, and general mood (Błachnio & Przepiorka, 2016). Personality traits are also discussed in relation to Facebook addiction. It was found that personality traits that are associated with Facebook use were found to be associated with Facebook addiction also (Błachnio et al., 2016; Rajesh & Rangaiah, 2020; Zafar et al., 2018). Summarizing, we may assume that Intrusion is characterized by an excessive attachment to Online social network, which interferes with everyday activities, and includes such symptoms as distress, relapse and reinstatement, and euphoria.

1.2. Self-regulation

Self-regulation is the ability to control actions, cognitions and emotions are critical to success across the different domains (Carver & Scheier, 2001). At a broad level, self-regulation is multi-faceted and refers to a broad range of psychological processes that involve the integration of thoughts, emotions, and behavior (Hofmann et al., 2012). More specifically, it refers to a cognitive system of information processing (including goal planning, modeling of significant conditions, programming of actions, and

results evaluation), and, to instrumental personality-regulatory properties: flexibility, independence, reliability, Responsibility, etc. (Morosanova & Fomina, 2017).

Concerning Morosanova's approach, self-regulation is a construct integrating both cognitive and personal resources to solve various problems of vital activity (Morosanova, & Bondarenko, 2015). Their studies demonstrated the positive impact of the self-regulation on academic success and performance reliability in educational situations (Morosanova et al., 2018; Morosanova & Fomina, 2017).

The concept of self-regulation is interpreted through the various theoretical points of view and studies of the self-regulation role in the academic sphere. However, there is a small number of works concerning self-regulation and Internet behavior. As an example, due to the Social Online Self-regulation Theory, people use Facebook in order to self-regulate (Ozimek & Förster, 2017).

1.3. Emotional regulation strategies

Many different terms are used to refer to emotion and emotion regulation-related processes, as well as many theoretical approaches toward emotion and emotion regulation exist. One commonly used framework for studying emotion regulation strategies is the process model of emotion regulation (Gross, 2015). The process model of emotion regulation makes the prediction that different emotion regulation strategies – and the specific tactics by which these strategies are implemented in any given situation – should have different consequences for how a person feels, thinks, and acts, both immediately and over the longer term. Gross proposed two main emotional regulation strategies: cognitive reappraisal and expressive suppression. Cognitive reappraisal is an antecedent-focused strategy, a sort of cognitive change that requires construing a potentially emotion-eliciting situation in a way that changes its emotional impact. Expressive suppression is a response-focused strategy, is a form of response modulation that involves inhibiting ongoing emotion-expressive behavior (Gross, 2015). Many studies revealed the individual differences among the persons who prefer one of the emotional regulation strategies, the role of interpersonal functioning and well-being, self-esteem, aggression, and implication to the clinical samples (Chen et al., 2020; Zhang et al., 2020). The studies of Internet behavior including Online social network sites usage underlying the importance of emotion and their regulation in addiction formation (Foroughi et al., 2019; Moretta & Buodo, 2018; Rajesh & Rangaiah, 2020).

1.4. Academic motivation

This study examines motivation on the ground of the self-determination theory (SDT) and its application to the academic motivation made by Vallerand et al. (1992) and colleagues. At the core of SDT is the theory that individual motivation can take many forms, differing from one another based on their degree of relative autonomy or self-determination. In the academic context, results from numerous studies supported the SDT assumption that more autonomous forms of motivations will be associated with more positive educational outcomes (Litalien et al., 2017; Liu, 2015). The academic motivation includes internal and external motivation features, and amotivation as a lack of motivation or avoidance of activity. The primary outcome from the previous investigation between Facebook and achievements showed significant adverse effects of OSN use on students' academic performance (Busalim et al., 2019; Doleck & Lajoie, 2018).

2.   Problem Statement

Research of the positive and negative effects of excessive use of SNS on students' academic characteristics has gained attraction due to the increased use of social media and its integration in the educational process. Previous studies have suggested that deficits in self-control and regulation are implicated in Online social network sites (Facebook) addiction. In this vein, the problem is to reveal the relations between SNS Intensity and Intrusion and self-regulation features as well as the associations with academic motivation. We aimed to reveal the importance of emotional regulation or/and self-regulation as an activity, and clarify the SNS usage features as factors of academic motivation.

3.   Research Questions

The research question for this study is:

Do the SNS Intensity and SNS Intrusion associates with self-regulation and emotional regulation parameters?

How may the academic motivation features be related to social network use and addiction?

Are any differences in the relation of SNS Intensity and SNS Intrusion with regulation and motivation parameters?

Are the sex and age associated with SNS Intensity and SNS Intrusion?

4.   Purpose of the Study

In this study, we attempt to understand the association between Social Network Sites Intensity and Intrusion and self-regulation features (emotional, activity and personality regulation). The objectives of this study are.

The SNS Intensity and SNS Intrusion associate with the lack of self-regulation and emotional regulation. We may expect positive association between SNS Intensity and self-regulation (action and personality) because the intensity of social network use reveals in self-organisation, time-management and frequency parameters of Internet activity.

Whereas SNS Intrusion positive relates with emotional regulation basing on the assumption that intrusion characterises the addictive internet behaviour relates with emotion dysregulation and inability to control emotions.

Among the academic motivation features the external motivation demonstrates strong relations with online social network sites using and addiction. However, amotivation may be related with SNS Intrusion and internal motivation negatively associates with SNS Intensity and Intrusion.

Besides, the role of sex differences and age in SNS Intensity and SNS Intrusion will be clarifying.

5.   Research Methods

5.1. Participants

The sample consists of 197 undergraduate students aged 18-24 (M = 19.59; SD = 2.21), 58 % female recruited to participate in the study in exchange for psychology course credits. Participants were

informed of the nature of the study and were asked to give consent if they wished to participate; only those who gave consent have been included. Participants were completed an online survey as part of the testing session in their psychology course. The front page of the survey provided information on the nature of the study, as well as relevant ethical issues. At the end of the study, participants were debriefed and thanked. All participants are using the most popular Russian SNS – VKontakte as the main online social network site.

5.2. Measures

Social Network Site addiction was measured using the SNS Intrusion Questionnaire. This method was developed on the basis of the Facebook Intrusion Questionnaire (Błachnio & Przepiorka, 2016; Elphinston & Noller, 2011). The only change in questions was the replacement of Facebook to VKontakte — the most popular Russian social network site. This measure contains eight items, scored on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Item responses are summed, with higher numbers indicating higher levels of SNS (VKontakte) addiction. This measure had good reliability, Cronbach's alpha (α) = 0.79.

To assess the intensity of SNS use, we used the Online Social Network Site Intensity Scale. This measure was constructed on the basis of the Facebook Intensity Scale (Ellison et al., 2007) with the change of the word "Facebook" to "VKontakte". This scale measures emotional connection to Social Network sites and its integration into everyday life. The scale consists of six items rated on a 5-point Likert scale (1 = disagree strongly, 5= agree strongly). The internal reliability of the Online Social Network Site Intensity Scale of α = 0.83.

Two emotion regulation strategies were measured: cognitive reappraisal and suppression subscales with the Emotion Regulation Questionnaire (ERQ) (Gross, 2015). ERQ is a 10-item self-report measure where each item is rated on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). This questionnaire demonstrated an adequate Cronbach's alpha of cognitive reappraisal 0.79 and emotional suppression subscales 0.73 (Pankratova & Korniyenko, 2017).

The 28 items from the Russian adaptation of Academic motivation scale AMS (Gordeeva et al., 2014; Vallerand et al., 1992) were used to assess students' motivation toward educational process: internal motivation (intrinsic motivation to know; intrinsic motivation to experience stimulation; intrinsic motivation to accomplish; identified regulation); enteral motivation (introjected regulation; external regulation); amotivation. Participants rated each item using a 7-point Likert scale (1 = does not correspond at all, 7 = corresponds exactly). All scales demonstrated an adequate Cronbach's alpha value ranged from 0.76-0.91 (Gordeeva et al., 2014).

Regulatory features were evaluated with the Self-Regulation Style Questionnaire (Morosanova & Bondarenko, 2015). This questionnaire includes 46 statements and six scales: planning, modeling, programming, results evaluation, flexibility, independence. The general level of self-regulation as activity and personality features of self-regulation estimated by summing up the scores of initial scales. Cronbach's alpha value ranged from 0. 67-0.78.

5.3. Data analyses

All analyses were performed using SPSS version 20. First, zero-order correlations were calculated between SNS Intrusion, SNS Intensity and cognitive reappraisal, emotional suppression, activity self-regulation, and personality self-regulation. Further, the shared influence of emotional self-regulation, activity self-regulation, and personality self-regulation controlled for age and sex, were examined via hierarchical regression.

In a second step, in order to get a more detailed insight, hierarchical regression analyses were conducted to test the predictive value of regulation features on online social network sites addiction and intensity.

6. Findings

6.1. SNS Intensity and SNS Intrusion and self-regulation measures

We began by correlating the SNS Intensity and SNS Intrusion and self-regulation measures. At the zero-order level SNS Intensity ($r = -0.24$, $p < 0.001$), SNS Intrusion were correlated with self-regulation as activity ($r = -0.26$, $p < 0.001$). Next we correlated SNS Intensity and SNS Intrusion with the aspects of the emotional regulation. The SNS Intensity correlated only with emotional suppression ($r = -0.18$, $p < 0.001$). The SNS Intrusion was correlated with emotional suppression ($r = -0.20$, $p < 0.001$) and also with cognitive reappraisal ($r = -0.17$, $p < 0.01$). See table 1 for means and standard deviations. Next we examined the associations between the SNS Intensity and SNS Intrusion and academic motivation measures. The SNS Intensity correlated only with external motivation ($r = 0.29$, $p < 0.001$). The SNS Intrusion was associated with internal motivation ($r = -0.23$, $p < 0.001$), external motivation ($r = 0.32$, $p < 0.001$) and amotivation ($r = 0.24$, $p < 0.001$).

Hierarchical multiple regression analyses explored associations self-regulation measures, emotional regulation strategies and SNS Intensity and SNS Intrusion. Age and sex were controlled for in the first step of model, and the emotional suppression and cognitive reappraisal were entered in the second step, self-regulation as activity and personality self-regulation were entered in the final step to assess their contribution to the variance. At the final step the analysis was found to be statistically significant $F(197) = 7.983$, $p < 0.001$. This regression accounted for 20 % of the variability for SNS Intensity, with three significant predictors age ($\beta = -0.15$, $p < 0.01$), sex ($\beta = 0.29$, $p < 0.001$) and self-regulation as activity ($\beta = -0.23$, $p < 0.001$). The regression model for the SNS Intrusion on the final step explains 15 % of variability with two significant predictors sex ($\beta = 0.21$, $p < 0.01$) and self-regulation as activity ($\beta = -0.25$, $p < 0.001$).

Table 1. Means and standard deviations for the study variables

Variables	Total sample (N=197)		Male (N=70)		Female (N=127)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
SNS Intensity and	3.06	0.99	2.63	0.97	3.29	0.92
SNS Intrusion	2.70	0.86	2.44	0.83	2.85	0.85
Emotional suppression	4.33	1.04	4.57	1.04	4.20	1.02
Cognitive reappraisal	4.75	0.87	4.74	0.77	4.76	0.92

Self-regulation as activity	2.72	0.30	2.71	0.28	2.73	0.30
Personality self-regulation	2.79	0.30	2.80	0.29	2.78	0.30
Internal motivation	3.96	0.82	3.93	0.82	3.98	0.82
External motivation	3.17	0.73	3.09	0.74	3.22	0.72
Amotivation	1.90	1.02	2.05	1.03	1.82	1.01

6.2. SNS Intensity and SNS Intrusion and academic motivation

Next we explored the relationship between SNS Intensity and SNS Intrusion and academic motivation. Correlation analysis was found to be statistically significant, indicating a strong positive relationship between SNS Intensity ($r = 0.30$, $p < 0.01$), SNS Intrusion ($r = 0.32$, $p < 0.01$) and external motivation. SNS Intrusion also negatively correlated with internal motivation ($r = -0.23$, $p < 0.01$) and positively with amotivation ($r = 0.24$, $p < 0.01$).

The regression model for the internal motivation as dependent variable and age, sex added on the step 1, SNS Intensity and SNS Intrusion variables added on the step 2 showed statistically significance ($F(197) = 5.931$, $p < 0.001$). The final model explains 11 % of variability with SNS Intensity ($\beta = 0.24$, $p < 0.005$), and SNS Intrusion ($\beta = -0.42$, $p < 0.001$) as significant predictors. The final model for the external motivation accounted 11 % of variability ($F(197) = 6.09$, $p < 0.001$) with SNS Intrusion ($\beta = 0.22$, $p < 0.05$) as the only one predictor. The same result is for the amotivation, the model accounted 10 % of variance ($F(197) = 5.49$, $p < 0.001$) with SNS Intrusion ($\beta = 0.36$, $p < 0.001$) as the predictor.

7. Conclusion

The SNS Intensity associates with the lack of self-regulation as activity and younger age previously among women who are the most active users of social network sites. SNS Intrusion is connected only with sex and low self-regulation as activity. The explanation concerning the age, may be the following: the older students tend to transfer their social relation to offline, to the real life and use SNS for social contact lesser. But women with low planning, modelling, evaluating results of activity the SNS became the more addictive. The intensity of social network use reveals in less self-organisation, bad time-management. Personality factors of self-regulation are not linked with SNS intensity and intrusion. This support the idea that parameters of activity regulation are the main factors for SNS addiction.

Interesting fact that emotional self-regulation is not associated with SNS Intensity or Intrusion. So, any of emotional strategies can be used by more or less addicted persons. Considering that the SNS use is the positive experience in general and indirect (offline) relations the need to regulate emotion is not so important than in other domains of life.

We found the evidence for the purpose about the role of SNS addiction in academic motivation. The intensity of social network use increases, and the addiction features of social network use decreases the internal motivation. In this vein the frequency of internet contacts, the emotion and the feel of community may be the tool for binging the new dimension in distance education practice. We may propose that academic motivation to know or to accomplish is built up with the participation of social

network sites use. The opposite situation is for the external motivation and amotivation. SNS intrusion increases the frustration the need to autonomy (in terms of self-determination theory) and this can be a part of negative effect of addiction.

Shortening the results, we may postulate:

1. The lack of self-regulation increases the SNS Intensity and SNS Intrusion. This effect is more revealable for women.

2. The emotional regulation doesn't influence the SNS use and addiction but this facts need to be additionally studied.

3. Academic motivation has contradiction influence from SNS Intensity and SNS Intrusion. The intensity may rise the internal motivation and lower the autonomy frustration. Whereas addictive internet behavior escalate the autonomy frustration and external motivation regardless of sex and age.

Acknowledgments

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