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The role of personality traits in Facebook and Internet addictions: A study on Polish, Turkish, and Ukrainian samples

Agata Błachnio [a, *], Aneta Przepiorka [a, **], Emre Senol-Durak [b], Mithat Durak [b], Lyubko Sherstyuk [a]

[a] The John Paul II Catholic University of Lublin, Poland
[b] Abant İzzet Baysal University, Turkey

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ABSTRACT

Although the relationships between Facebook addiction, Internet addiction and personality have already been investigated. The aim of the present study was to explore whether there were personality traits associated with Facebook addiction and Internet addiction across three different cultures. The participants were 1011 Facebook users from Poland, Turkey, and Ukraine. We administered the Bergen Facebook Addiction Scale, the Internet Addiction Test, and the Ten Item Personality Inventory. We found that in the total sample Facebook addiction was positively associated with Internet addiction, while Internet addiction was negatively associated with emotional stability, conscientiousness, and extraversion. The lack of invariance across the countries indicates that the tested links are not the same in each of them, which may suggest the role of cultural factors in this phenomenon. The results are discussed in the light of Facebook addiction and personality literature. The application of culturally sensitive intervention programs in dealing with Facebook addiction is encouraged.

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Using the Internet and Facebook has become very global, common, and incorporated in daily routine among other activities (e.g., driving a car or walking). Individuals increasingly choose to communicate via the Internet rather than face to face (Chou, Condron, & Belland, 2005), with the help of a wide range of mostly mobile devices (Tang, Chen, Yang, Chung, & Lee, 2016). Also, several websites, including online social networking sites such as Facebook and Twitter, make Internet use very attractive and exciting. Using social networking sites has an impact on the quality and quantity of an individual's social interactions (Ryan & Xenos, 2011).

The universality of the Internet and easy access to it lead to problematic usage, affecting different aspects of life. Although Internet addiction was not listed in the Diagnostic and Statistical Manual of Mental Disorders, this concept has been described in terms of DSM-IV addiction criteria, which include tolerance and abstinence symptoms, anxiety and a desire to use despite problems in relationships (Goldberg, 1995). Young (1998) defines Internet addiction as an impulse control disorder that does not cause intoxication.

As in the case of Internet addiction, habitual activity, excessive involvement, and using Facebook to escape mood changes are mentioned in a meta-analysis as common elements of Facebook addiction (Ryan, Chester, Reece, & Xenos, 2014). Facebook addiction is defined as excessive attachment to Facebook that leads to disturbances in everyday activities and problems with interpersonal relationships (Elphinston & Noller, 2011). What is more, Facebook addiction is has six aspects typical of addiction in general, namely: salience, mood modification, tolerance, withdrawal, conflict, and relapse (Andreassen, Torsheim, Brunborg, & Pallesen, 2012).

As regards the scale of the phenomenon, 1% of the sample of approximately 900 Taiwanese university students in a recent study were described as Facebook-addicted while 17.8% were in a serious danger of Facebook addiction (Tang et al., 2016). In a sample of approximately 450 Turkish university students, 90.6% reported that they used Facebook daily, with a mean of 7 h a week (Koc & Gulyagci, 2013). As has been presented in other studies, especially

young people are at risk of developing Internet addiction (Kandell, 1998; Kuss, Griffiths, & Binder, 2013).

The body of literature shows that there are some personality characteristics related to Internet addiction, such as shyness (Chak & Leung, 2004), external locus of control (Hamburger & Ben-Artzi, 2000), low self-esteem (Yang & Tung, 2007), or loneliness (Morahan-Martin & Schumacher, 2000; Niemz, Griffiths, & Banyard, 2005). On the other hand, differences between Facebook profiles and individuals' actual personalities have been examined in some studies (Back et al., 2010; Bargh, McKenna, & Fitzsimons, 2002). Researchers have mainly explored Facebook preferences and their relationship with personality. For instance, the relationship between neuroticism and Facebook use was highlighted in a study of Australian Internet users (Ryan & Xenos, 2011). Similarly, the relationship between self-representations on Facebook and the Big Five personality traits in a sample of US students demonstrated that neuroticism, agreeableness, and conscientiousness were related to higher expression of the real self (Seidman, 2013). However, in the same study, neuroticism was also associated with having a higher hidden self and expressing a higher ideal self. Apart from these Big Five personality traits, extraversion and Facebook usage as well as introversion and Facebook usage were found to be associated with each other in other studies (respectively: Amichai-Hamburger & Vinitzky, 2010; Kuss & Griffiths, 2011). In line with these findings, self-inferiority and depressive character were associated with Facebook use (Hong, Huang, Lin, & Chiu, 2014). As regards Facebook profile preferences and their relationship with personality, higher agreeableness, a larger number cross-sex friends, and higher extraversion were significant (Lönnqvist, Itkonen, Verkasalo, & Poutvaara, 2014). These studies revealed the associations between personality and Facebook use, while the relationship between personality and Facebook addiction has not been sufficiently investigated. Although there was a positive correlation between Facebook use and Facebook addiction (Hong et al., 2014), it remained unknown whether there are personality traits typical of Facebook addicts. Andreassen et al. (2013) found that among Norwegian users Facebook addiction was positively linked with extraversion as well as negatively linked with openness and conscientiousness. Furthermore, negative associations between Facebook addiction and conscientiousness, emotional stability, and openness to experience were revealed in a Polish sample (Błachnio & Przepiórka, 2016). A study of Taiwanese university students revealed that Facebook addiction was negatively correlated with agreeableness, conscientiousness, and neuroticism (Tang et al., 2016). Some results indicate that cultural factors can play a role in explaining the phenomenon of Facebook addiction (Błachnio et al., 2016).

The main aim of the present study was to examine the relationship between Internet addiction, Facebook addiction and the Big Five personality traits (see Fig. 1). As emphasized by the social compensation theory, individuals experiencing insecurity in daily-life relationships are more likely to develop negative self-identity and are more likely to use social networking sites to compensate social needs due to deficiencies in self-esteem and life satisfaction (Hong et al., 2014). Therefore, such personality traits might result in vulnerability to addiction to social networking sites such as Facebook. We expected a relationship between personality traits and both addictions. One of the advantages of the present study is the cross-cultural comparison between Facebook users from Poland, Turkey, and Ukraine. We hypothesized that there would be some cultural differences between these countries in terms of Internet and Facebook predictors. We chose Facebook users from those particular countries because they represent different cultures and historical backgrounds and are currently in different geopolitical situations, which makes comparisons worthwhile. The three

countries differ on the Individualism dimension as defined by Hofstede (1980): Poland scored 60, Turkey 37, Ukraine 20.[1] Individualism vs. Collectivism is a dimension that reflects the level of integration with the group and the extent to which importance is placed on attaining personal or group goals. Previous studies suggested that people from individualistic vs. collectivistic cultures use Facebook in different ways. As was hypothesized, people from individualistic cultures post private information on Facebook more eagerly than people from collectivistic cultures (Nadkarni & Hofmann, 2012). Moreover, we can suppose that the frequency of Facebook use differs among people depending on the level of individualism. Jackson and Wang' (2013) found that social media users in China, where collectivistic values dominate, used social media less often than Americans.

Moreover, as we can see on the Inglehart–Welzel cultural map[2] of world, where countries are plotted on two dimensions: traditional vs. secular-rational values and survival vs. self-expression values, Poland, Turkey, and Ukraine differ on these dimensions. (see Fig. 2).

Many studies have been conducted among American Internet users (e.g., Seidman, 2013), and so comparing results obtained in different countries representing different continents seems to be interesting and useful. Firstly, the prevalence of Internet addiction varies across countries (Cheng & Li, 2014). Secondly, Internet and Facebook penetration rates in these countries are different (US: 88.5% and 62%, respectively; Turkey: 58% and 52.8%; Poland: 72.4% and 36.3%; Ukraine: 44.1% and 12.7%). These discrepancies in access to the Internet and Facebook result in different backgrounds for their users in these countries.[3,4] Secondly, there are differences in industrial, economic, societal, and technological development in the US and in the other countries included in the study.[5,6] There is scarce research focusing on the cultural context in the development of Internet and Facebook addictions (e.g., Błachnio et al., 2016; Lee-Won, Shim, Joo, & Park, 2014; Reed, Spiro, & Butts, 2016). As was proved in the study by Srite and Karahanna (2006), the national cultural values of masculinity/femininity, individualism/collectivism, power distance, and uncertainty avoidance influence the acceptance of technology by end-users. Furthermore, as highlighted by Kuss and Griffiths (2011), using representative samples is crucial to the understanding of Facebook addiction.

1. Method

1.1. Participants and procedure

The participants were 1011 individuals (67% women) possessing Facebook accounts, aged between 13 and 56, with a mean age of $M = 21.48$ years. This included 320 Turkish participants aged 17–37 ($M = 21.94$, $SD = 3.63$; 66% were females), 350 Poles, aged 13–38 ($M = 20.87$, $SD = 2.87$; 67% were females), and 341 Ukrainians aged 14 to 56 ($M = 21.70$, $SD = 6.77$; 66.9% were females). The sample is presented in Table 1. We applied the snowball procedure to recruit the participants. We prepared electronic versions of the questionnaires and sent the link to the study website to undergraduate students, requesting them to post it on their Facebook walls and thus spread the message about the study among their Facebook friends. The participants received no remuneration for their participation.

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