SHAME EXPERIENCES AND PROBLEMATIC SOCIAL NETWORKING SITES USE:
AN UNEXPLORED ASSOCIATION

Silvia Casale and Giulia Fioravanti

Abstract

Objective: The current study investigates the main and indirect effects of shame experiences and perceived benefits of computer-mediated communication (CMC) compared with face-to-face communication, on Problematic Social Networking Sites Use (PSNSU). In particular, a model in which perceived benefits of CMC (i.e. escapism, control over self-presentation, and approval/acceptance) mediate the association between shame and PSNSU was tested.

Method: A sample of 590 undergraduate students (mean age = 22.29 ± 2.079; females = 53.2%) completed measures of shame experiences, perceived benefits of CMC and PSNSU.

Results: The assessed structural model produced adequate fit to the data (χ^2= 352.99; *df* = 92; *p* <.001; *RMSEA* [*90% CI*] =.07 [.06-.08]; *CFI* = .97; *SRMR* = .06). Variables accounted for 50% of the variance in PSNSU. A partial mediation model in which shame predicted PSNSU levels through the perceived benefits of CMC was found. A direct relationship between shame and PSNSU was also detected.

Conclusions: The current study highlights how feelings of shame can contribute to problematic use of SNS and emphasizes the necessity of taking into account the perceived benefits of CMC when exploring psychological risk factors for PSNSU.

Key words*:* social networking addiction, problematic social networking sites use, shame, computer mediated communication, needs

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Introduction

Problematic social networking sites use: conceptualization

The use of social networking sites (SNS) has increased dramatically over the last few years and a growing body of studies has highlighted potential negative correlates of extensive SNS usage, like decrease in involvement in real-life communities and worse academic performance, as well as relationship problems (Kuss and Griffiths 2011). Problematic Social Networking Sites Use (PSNSU) has been defined as "being overly concerned about SNSs, to be driven by a strong motivation to log on to or use SNSs, and to devote so much time and effort to SNSs that it impairs other social activities, studies/job, interpersonal relationships, and/or psychological health and well-being" (Andreassen and Pallesen 2014, p. 4054). Some scholars (e.g. Kuss and Griffiths 2011, Wilson et al. 2010, Griffiths et al. 2014) argue that SNS may be potentially addictive because mood modification, salience, tolerance, withdrawal symptoms, conflict and relapse appear to be present in people who use SNS excessively. Other scholars (e.g. Carbonell and Panova 2016) claimed that the fact that SNSs can provoke certain negative consequences in a subset of their users - or provide a platform for the expression of preexisting

conditions - is not sufficient for their standalone addictive power. Even if there is not currently enough empirical support for the construct validity of SNS addiction, there is a growing consensus on the fact that PSNSU deserves further attention since frequency of SNS-use has been recently found to be associated with loss of control, cognitive preoccupation, and loss of alternative interests (Müller et al. 2016).

The present study adopted Caplan's (2010) Generalized Problematic Internet use approach in the social networks context. Caplan's theoretical perspective (Caplan 2005, 2007) claims that PSNSU might derive from the perceived deficiency of social skills. Communicating with others on the Internet in a text-based manner allows users to avoid some of the more fearful aspects of social interaction, while at the same time meeting their needs for interpersonal contact and relationships (Erwin et al. 2004). Moreover, SNSs provide greater control over self-presentation. In accordance with this perspective, a recent study (Casale and Fioravanti 2015) suggests that there is a moderate positive correlation between social interaction anxiety and compulsive use of SNS, especially among men. Similarly, Ryan and Xenos (2011) found that shy or anxious people spend more time on SNS due to escape from reality and to gratify their social needs. The effects of social anxiety on PSNSU have been found to be mediated by Internet use expectancies (i.e. experiences

of gratification and relief from negative feelings) and self-regulation (Wegmann et al. 2015).

The role of shame and perceived benefits of CMC

Shame can be defined as an affect involving perceptions that others view oneself as having negative personal characteristics or that one has engaged in behaviors that are unattractive (Gilbert 2000). Those who experience high levels of shame – irrespective of the underlying reasons – might appreciate online interaction for reasons similar to those who are socially anxious. According to the hyperpersonal communication perspective, some structural attributes of CMC make online interactions superior to face-to-face (FtF) interactions in terms of intimate exchanges (Walther 1996). Besides, the uses and gratification approaches (Katz et al. 1973) affirmed that users actively choose media stimuli in order to fulfill specific needs. The use of SNS might help people satisfy the need to belong and connect while giving them the opportunity to hide personal attributes (e.g. body shape or body size), personality characteristics (e.g. being boring, unintelligent, or dishonest) or behaviors (e.g. lying or stealing) that result in feelings of shame. Indeed, SNS provide users with almost full control over informational disclosure, which allows users to be strategic in managing self-presentation. Moreover, shame is associated with negative self-directed affects (Gilbert 2000), such as feelings of self-disgust, and empirical evidence shows that Internet services are often used for regulating negative feelings (LaRose et al. 2003). As a consequence, if a person experiences shame, SNS might allow them the opportunity to hide their supposedly negative attributes as well as alleviate the negative emotions linked to shame.

The continuing gratification-seeking might slowly turn into compulsive usage patterns as people continuously experience gratifications which further reinforce and intensify Internet use. A study by Chen and Kim (2013) specifically examined the influence of the gratifications of SNSs on pathological SNS usage. Motives for self-presentation and for relationship building significantly predicted PSNSU (Chen and Kim 2013). Moreover, the motive for escape from daily life strongly predicts SNS addiction (Kim and Haridakis 2009, Masur et al. 2014).

Interestingly, data about shame experiences and their effect on different forms of Internet addiction is practically non-existent. Only one study (Craparo et al. 2014) explored the association between shame and Internet addiction not specifically related to SNS use. A predictive role of shame on Internet Addiction level was found.

The present study contributes to the recent body of work on PSNSU by examining the main and indirect effects of shame and perceived/expected benefits of CMC (i.e. escapism, control over self-presentation, and approval/acceptance) on problematic SNS use. Specifically, we hypothesize that:

H1. SNS addiction will be positively predicted by shame
H2. SNS addiction will be positively predicted by control over self-presentation, escapism, and approval/acceptance
H3. The relationship between shame and SNS addiction will be mediated by the perceived/expected benefits of CMC.

Methods

Participants

Undergraduate students (N = 590; mean age = 22.29 $\pm$ 2.079; F = 53.2%) were recruited from the University of Florence in Italy. Research assistants explained the study procedures and asked for consent from the participants. Data collection consisted of written questionnaires that were filled out in a classroom setting. No rewards or extra-credit were given for participating in the study. Study procedures were designed in accordance with the European research ethical guidelines. The study protocol was approved by the Director of the Department of Psychology.

Measures

Generalized Problematic Internet Use Scale-2

The Generalized Problematic Internet Use-Scale 2 (GPIUS2; Caplan 2010) measures the degree to which an individual experiences the types of cognitions, behaviors, and outcomes that arise because of the unique communicative context of the Internet on a scale ranging from 1 (strongly disagree) to 8 (strongly agree). Since some items are referred to the use of the Internet without differentiating between the uses of different services, for the purposes of the present study respondents were asked of referring only to their use of SNS when answering to the items (e.g. "*I have difficulty controlling the amount of time I spend on SNS*"). Participants' scores on the 15 items can be added up to create an overall GPIU score. The Italian version (Fioravanti et al. 2013) of the GPIUS2 has shown a good construct and convergent validity. In the current study, the Cronbach's Alpha was α= .90.

Experience of Shame Scale

The Experience of Shame Scale (Andrews et al. 2002) is a 25-item questionnaire that assesses characterological, behavioral and bodily shame (e.g. *Have you felt ashamed of any of your personal habits*, *Do you feel ashamed when you do something wrong*, *Have you felt ashamed of your body or any part of it*). Participants responded according to how they have felt in the past year and each item is rated on a 4-point scale (ranging from 1 = "not at all" to 4 = "very much"), yielding total scores in the range 25-100. The Cronbach's alpha in the current study was α = .93.

Perceived benefits of CMC compared with FtF communication

Three brief scales measured the perceived benefits of CMC compared with FtF communication. Each item was rated on a 5-point Likert scale (from "completely disagree" to "completely agree"). Escapism scale was composed by three items measuring the belief that CMC allows to distract from thinking about problems and responsibilities/duties. A sample item was "*Compared with FtF interaction, during CMC I can forget of things that make me suffering*". In the current study, the Cronbach's alpha was α =.79. Control over self-presentation, conceptualized as the opportunity to hide oneself/negative attributes and to experience different identities during CMC/online, was assessed by a brief scale consisting of seven items. A sample item

was "*Compared with FtF interaction, during CMC I can decide who I want to be*" In the current study, the Cronbach's alpha was α =.88.

Six items measuring the degree to which an individual perceives himself to be more socially accepted online than in face-to-face contexts composed approval/acceptance scale. A sample item was "*Compared with FtF interaction, during CMC I feel more accepted by others*". In the current study, the Cronbach's alpha was α =.89.

Data analyses

Descriptive statistics, zero-order, and partial correlations between the study variables were computed. Structural Equation Modeling (SEM) was performed to test the hypothesized effects of shame on problematic SNS use through perceived relevance/benefits of CMC (i.e. control over self-presentation, escapism, and approval/acceptance). SEM was conducted using LISREL 8.8 with the Robust Maximum Likelihood (RML) estimation method (Jöreskog and Sörbom 2006). The following profile of goodness of fit indices was considered: the χ^2 (and its degrees of freedom and p-value), the Standardized Root Mean square Residual (SRMR – Jöreskog and Sörbom 1993) "close to" 0.09 or lower, the Comparative Fit Index (CFI - Bentler

1995) "close to" 0.95 or higher (Hu and Bentler 1999), and the Root Mean Square Error of Approximation (RMSEA - Steiger 1990) less than 0.08 (Browne and Cudeck 1993). Indirect effects were tested with a distribution of product coefficients (*P*) test developed by MacKinnon and colleagues (1998, 2002).

Results

Descriptive statistics and zero-order correlations for all the study variables are shown in **table 1**. Shame was positively associated with the perceived benefits of CMC compared with FtF communication. All of these variables were positively associated with PSNSU levels.
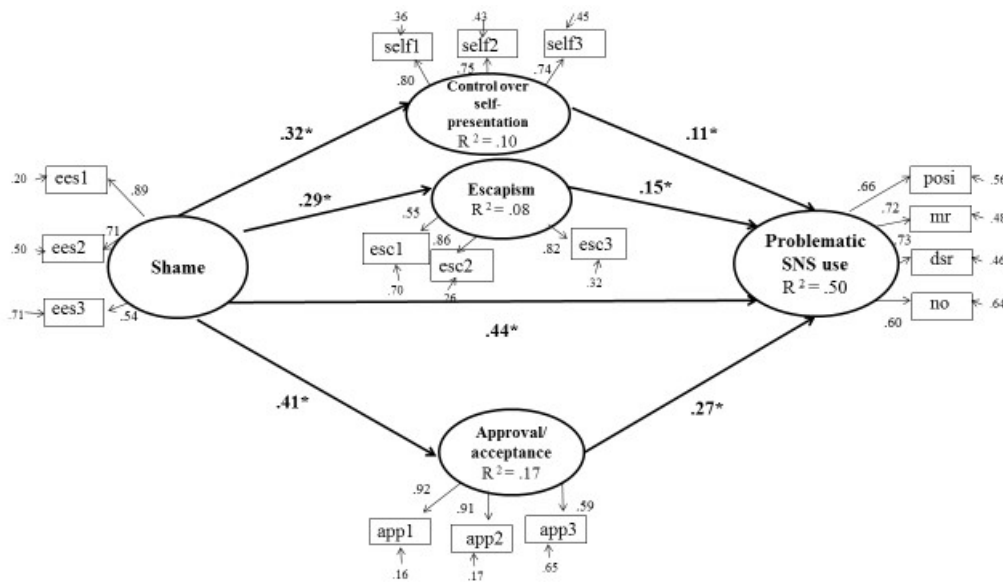
The structural model produced adequate fit to the data (χ^2= 352.99; *df*= 92; *p* <.001; *RMSEA [90% CI]* =.07 [.06-.08]; *CFI* = .97; *SRMR* =.06). All coefficients estimated for the measurement model and the estimates of error variances were significant. The variables in the model accounted for 50% of the variance in participants' PSNSU levels. The standardized beta coefficients are shown in **figure 1**. The results supported the hypothesized indirect relationships between shame and problematic SNS use levels mediated by the perceived benefits of CMC (control over self-presentation: *P* = 10.08 *p*<.05; escapism: *P* = 5.00 *p*<.05; approval/acceptance: *P* =

Table 1. *Means, standard deviations, and Pearson's Product Moment correlations between the study variables*

		M (*SD*)	1	2	3	4	5
1.	EES	46.98 (13.07)	-	.23*	.28*	.34*	.47*
2.	Escapism	6.21 (2.58)		-	.30*	.43*	.30*
3.	Control over self-presentation	19.59 (7.28)			-	.45*	.33*
4.	Approval/acceptance	10.89 (5.03)				-	.46*
5.	GPIUS2	33.14 (16.03)					-

Note. EES = Experiences of Shame scale; GPIUS2 = Generalized Problematic Internet Use Scale 2. **p*<.001.

Figure 1. *Standardized estimates for structural model*

Note. ees1, ees2, ees3 = experience of shame scale subscales; self1, self2, self3 = control over self-presentation parcels; esc1, esc2, esc3 = escapism items; app1, app2, app3 = approval/acceptance parcels; posi = preference for online social interaction scale; mr = mood regulation scale; dsr = deficient self-regulation scale; no = negative outcomes scale; * *p*<.001

28.98 *p*<.05, respectively). The analysis also revealed a significant direct effect of shame on PSNSU.

Discussion

In the current study, we tested a theoretical model to explain the underlying processes of pathological use of SNS. The results illustrated, for the first time, an association between shame experience and problematic SNS use. Moreover, a partial mediation model in which shame predicted PSNSU levels through the perceived benefits of CMC was found.

As previously reported for other types of addiction (e.g. Tangney and Dearing 2002), those people who experience shame could use social networks as a means of escaping from real life problems and negative emotions. Furthermore, in line with the social skill model theorization (Caplan 2005, 2007), SNS use might provide greater control over self-presentation (than face-to face interactions) for people who view oneself as having negative and unattractive characteristics. Finally, in accordance with recent studies which evidenced the importance of relationship building and maintenance' purpose in motiving SNS use (e.g. Chen and Kim 2013), the perception of being more socially accepted and approved online could meet the need for interpersonal contacts among people who experience shame in offline social interactions.

It is possible to suppose that the breadth in the definition and assessment of shame allows us to capture a wider range of emotional situations in which individuals might feel the need to rely on computer-mediated interactions. Basically, if a person is disgusted with her/himself, she/he often prefers to interact through a mediated channel of communication. Future studies should clarify whether shame brought about by specific personal characteristics can help explain PSNSU. Body image avoidance, for example, was found to be associated with Internet addiction symptoms in previous studies (e.g. Rodgers et al. 2013).

Despite these potentially intriguing findings, more research is needed in order to clarify the complex link between shame and problematic SNS use. According to the present findings, people who struggle with feelings of shame are at a greater risk of developing SNS addiction because computer mediated communication is perceived as safer and more secure in terms of allowing users to avoid being judged by others. For this reason, shame might be a specific risk factor in developing an addiction to SNSs.

Some limitations of the current study should be noted. First, the present study relies solely on cross-sectional data, which limits our ability to formally test for causality. From a theoretical point of view, we cannot rule out the idea that those with PSNSU might experience feelings of shame because of their problematic use of SNSs – a hypothesis that is consistent with previous studies that have examined the need to hide one's own problematic behavior among those affected by substance dependences and behavioral addictions. The association between shame and PSNSU might be bidirectional and longitudinal studies are needed in order to clarify these mutual reinforcement dynamics. Second, related to the previous point, the present findings are based only on self-report measures; while the perceived benefits of CMC are by definition the result of a subjective evaluation, subjective assessments of problematic Internet uses might fail to reflect accurately what they intend to measure. Third, the sampling methodology (i.e. an opportunistic sample) place restriction to the generalizability of the current results. More research, preferably using representative and clinical samples, is warranted. An additional limitation involves the measures used to assess the perceived benefits of CMC compared with FtF communication. Although the internal consistency was good for all the measures, future studies are needed to further evaluate their psychometric properties.

Nevertheless, as far as we know, this is one of the first studies that investigated the role of shame on PSNSU. This association seems to be partially mediated by the perceived importance attached to CMC attributes, which allow individuals to satisfy some specific needs. In particular, the possibilities to hide oneself negative attributes, to be more socially accepted and to distract from thinking about problems, offered by CMC, could lead to a compulsive use of SNS among people who experience shame. In other words, for people who feel shame, the problematic use of SNS could reflect a need to control self-presentation (i.e. to decide who to be), and social acceptance (i.e. to feel accepted by others), and an attempt to stop thinking about problems and to cope with negative emotions.

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