
페이스북 피로감에 대한 연구: 자기애, 평판근심, 반응기대를 중심으로

Facebook Fatigue: Narcissism, Reputation Concern, and Expectation of Others' Responses

이종민, Jongmin Lee*, 이지혜, Jihye Lee**, 성용준, Yongjun Sung***

요약 특정 집단의 취미활동이자 소통수단으로 시작되었던 소셜 네트워킹 사이트(SNS)는 이용자수, 이용의 깊이와 범위, 그리고 빈도를 주목할 때 이제 현대인의 일상 그 자체가 되어가고 있다. 그러나 삶과 밀접해진 SNS 이용으로 인해 최근 SNS 이용자가 피로감을 호소하고 있음에도 불구하고, 이에 대한 심리학적 원인을 규명하는 연구는 매우 부족하다. 이에 본 연구는 가장 대표적 SNS인 페이스북 사용자를 대상으로 자기애가 높은 사용자가 페이스북 피로감을 느끼게 하는 심리적 기제를 알아보고자 하였다. 자기애는 SNS 이용에 영향력 있는 성격특성으로 연구된 바 있으며, 평판근심과 반응기대의 매개효과를 검증하고자 하였다. 이를 위해, 인터넷 설문을 통하여 페이스북 사용자 329명의 응답자료를 수집하여 분석하였다. 결과적으로, 자기애 성향이 높은 사용자일수록 SNS 피로감을 많이 경험하였고, 평판근심과 타인의 반응기대가 이를 매개함을 밝혔다. 본 연구를 통해 SNS 이용에 있어 사용자의 자기애가 미치는 긍정적/부정적 영향에 대한 기존 연구결과 사이에 평판근심과 반응기대가 SNS 피로감 형성에 미칠 수 있다는 이론적 함의를 제시하고자 한다.

Abstract Social Networking Sites (hereafter SNSs) have become a part of people's daily routines. Beginning as a hobby/communicating tool for a specific group of people, SNSs have expanded in terms of the number of users, frequency of access, and depth and range of sharing. It is recently reported that the users experience SNS fatigue from being connected at all time. However, limited research has addressed this issue. The purpose of the present study was to examine the mediating role of reputational concern and expectation of others' responses on the relationship between narcissism and Facebook fatigue. A total of 329 Facebook users completed an online survey. The results showed that individuals who rated high on narcissism experienced a high level of Facebook fatigue, and that both reputational concern and expectation of others' responses partially mediated the relationship between narcissism and fatigue. Implications of the findings and suggestions for future research are discussed.

핵심어: *Narcissism, Reputation concern, Expectation of others' responses, SNS fatigue, Psychological well-being*

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*주저자 : 고려대학교 심리학과 석사과정

**공동저자 : 고려대학교 심리학과 석사

***교신저자 : 고려대학교 심리학과 교수; e-mail: sungyj@korea.ac.kr

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1. Introduction

For the last decade, social networking sites (SNSs) have grown to compose a major digital industry that is constantly attracting more users. The CEO of Facebook, Mark Zuckerberg, declared that the number of active users of Facebook reached 2.2 billion by March 2018 and that it will be 2.35 billion by the end of the year [1]. Different types of SNS are embracing billions of active users worldwide; however, myriad users are trying to leave social media due to SNS fatigue either temporally or permanently [2,3]. A decent amount of research has investigated the antecedents and consequences of SNS fatigue [4-7], but only few psychological approaches have been used.

Scholars have examined narcissism as an important factor in the use of SNSs [8-12]. The present research aims to investigate the effect of narcissism on Facebook fatigue and the mediating role of reputational concern and expectation of others' responses on the relationship between them. For this purpose, an online survey was conducted to collect reports from 329 Facebook users. Mediation analyses to test mediation effects were then conducted, and both reputational concern and expectation of others' responses were found to be partial mediators in the relationship between narcissism and Facebook fatigue. Regarding theoretical implications, the results of the study explain the psychological bridge between narcissism and SNS fatigue that goes beyond findings in extant research of a positive correlation [3]. Though narcissists spend considerable time on SNS activities, they have accumulated fatigue from doing so, especially with respect to the perceptions and reactions of their followers.

2. Theoretical Background

2.1. Facebook fatigue

As SNSs have grown in popularity and become a part of peoples' daily routines [13], research has shown that SNS users tend to display greater psychological distress than non-users [14]. The psychological distress that users experience is referred to as SNS fatigue, which is a subjective and self-evaluated feeling of tiredness derived from SNS usage [4]. SNS fatigue is a multi-dimensional construct that includes emotional, psychological, cognitive, and behavioral aspects [15]. At the emotional level, SNS users may feel anger and disappointment due to their SNS usage. At the psychological level, they may experience boredom and

perceive addictive tendencies of feeling entrapped. At the cognitive level, SNS users' thinking, reasoning, and remembering may be affected when they are overwhelmed by others' responses or external demands. Such users have been responding to this fatigue in various ways, such as reducing their activity level or leaving the SNS environment [15].

Prior research has attempted to uncover aspects related to SNS fatigue [4,15,16]. For instance, previous research has reported that those who suffered from SNS fatigue experience loneliness, dejection, jealousy, a sense of deprivation, depression, and a sense of inferiority while skimming through updates from others [5]. Kim and Lee discovered that digital fatigue negatively influences the intention to use SNS [6]. Moreover, it has been found that the SNS fatigue affects our daily lives in more practical way, as users not only recognize troubles in their routines but also become disturbed from focusing on their job performance [7]. Some researchers have, thus, aimed to identify antecedents of fatigue among to the connected users. Lee, Son, and Kim found three types of overloads that lead to SNS fatigue: information overload, communication overload, and system feature overload [4]. These three types of overload refer to the state when users are exposed to information/communication/system features to a greater extent than they can accommodate for processing [4]. In addition to these external factors, psychological mechanisms have recently been found to underlie SNS fatigue. Lee, Chou, and Huang examined five personality traits as antecedents [17], while Dhir, Yossatorn, Kaur, and Chen identified anxiety and depression as a psychological outcome of SNS fatigue [2]. Lee also discovered that SNS fatigue is caused by a high level of self-esteem, and is correlated with narcissism [3]. Acknowledging that SNS fatigue occur in highly active SNS users, the present study focuses on Facebook, which is prevalent and has a substantial number of users.

2.2. Narcissism and Facebook fatigue

Narcissism refers to a personality trait reflecting a grandiose and inflated self-concept [10]. Narcissists have highly positive self-views, particularly in terms of their physical attractiveness and agentic traits, such as intelligence and extraversion [18], and they rely on several strategies to maintain their inflated self-concept, such as seeking to dominate others [19] and showing off [20]. Such characteristics can easily be presented on SNSs, such as Facebook, and individuals high in narcissism

have been found to frequently use of this platform[10]. This is because activities on Facebook such as posting pictures and updating one's status might provide them with self-promoting opportunities[10,11]. Thus, narcissists strategically manage their self-presentation by repressing, modifying, or even manipulating their self-image to show what they wish to show[12]. The effort that narcissists put forth gives them instant rewards in the form of receiving opinions from others.

Narcissists are eager to obtain responses from others because of their unstable self-esteem[21,22]. Research in this area further suggests that those with low self-esteem are unable to obtain sufficient confirmation by themselves, and therefore, they are likely to respond to evaluations from others more sensitively[21]. Experimental evidence shows that narcissists are more aggressive after social rejection than non-narcissists, and that they consciously derogate from individuals who give them unfavorable feedbacks[18]. In a sense, the body of literature has indicated that such unstable self-esteem induces narcissists to look for more positive responses in order to break the vicious cycle, rendering them "endless laborers"[21].

Previous studies examining narcissists as active SNS users have mainly focused on their grandiose characteristics[10,11,23]. If such active usage were to be viewed as a behavior of enhancement to maintain their grandiose self-view, this would certainly be a strategic effort to gain a certain number of *Likes* and positive comments along with compliments and envies. In turn, when narcissists receive negative feedback or fewer *Likes*/comments than they expect, the failure of their strategic effort may further weaken their unstable self-esteem. The cycle of these experiences would lead narcissists to spend more energy on Facebook use until they experience fatigue. Thus, this study suggests the following hypothesis:

- H1.** The level of narcissism positively influences the level of Facebook fatigue.

2.3. Reputation concern

Reputation concern has been examined as a factor of SNS fatigue[24]. Reputation is defined as an overall evaluation of a subject or a party that is committed to a specific role[25]. Similarly, reputation is also viewed to be the communal trust toward a subject, which depends on the fulfillment of his/her

role[26]. In this sense, reputational concern on SNS could be defined as a fear or concern about negative feedback and ignorance from other people. In recent years, a growing number of users have been found to monitor their reputation through SNS activities, and 61% of users visit SNSs once every few days for this purpose[27]. Here, psychological status is highly correlated with the unstable personality traits of narcissists. Narcissists are concerned with the extent to which other people view them in a positive way[21]. However, the trait of grandiose self-evaluation could lead narcissists to devote more to reputational concern on SNSs than general users. In this sense, narcissists could experience high levels of reputational concerns, and such concern is expected to mediate the relationship between narcissism and SNS fatigue. Thus, the following hypotheses were put forth:

- H2a.** Narcissism is positively related to the level of reputation concern.
- H2b.** Reputation concern mediates the relation between narcissism and Facebook fatigue.

2.4. Expectation from others' responses

The widespread use of SNSs produces a perpetual obsession and creates expectations that people are obligated to respond to others' posts immediately. To meet these expectations, people need to maintain continuous attention on their SNS feeds, and they are thus exposed to an overwhelming volume of social demands. These increased energy requirements cause fatigue, which can lead to physical and psychological strain. Based on research on expectation of others' responses, individuals who are sensitive to others' feedback tend to highly expect *Likes* or comments from others on their postings, and to experience negative emotions such as sorrow if the responses do not meet their expectations[28]. Although previous work has not focused on the direct effects of response expectation on SNS fatigue, there may be a positive relationship between the two variables based on results showing that fatigue can be induced by strong emotional experiences[29]. In other words, repetitions of the failure in meeting expectation would reinforce negative emotions, thereby resulting in fatigue. Moreover, narcissists would more strongly experience negative emotion, as they would have high expectations in accordance with their inflated self-view. Consequently, narcissists may experience greater SNS fatigue. Thus, this study suggests the following hypotheses:

H3a. Narcissism is positively related to the level of expectation of others' responses.

H3b. Expectation of others' responses mediates the relation between narcissism and Facebook fatigue.

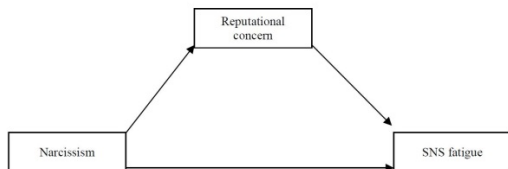


Figure 1. Research model 1

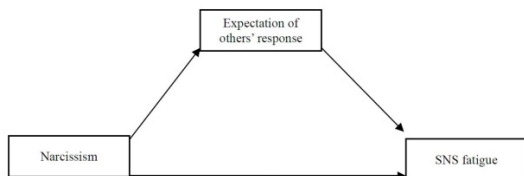


Figure 2. Research model 2

2. Sample and Measures

Data were randomly collected through an online survey conducted by a major research company in South Korea. The respondents were all Facebook users. A total 329 residents of Korea completed the survey. Among them, 163 were male (49.5%) and 166 were female (50.5%). The average age of the sample was 34, with a range from 20 to 49 ($SD = 8.29$).

All items were measured on a 7-point Likert scale. SNS fatigue was measured by 4 items adapted from the research of Lee and Chung[24]. The respondents were asked to indicate the extent to which they agreed with the following statements: "It feels burdensome to manage my Facebook account", "I get burnt out after using Facebook", "I feel tired from managing my Facebook account", and "I cannot start off another work right after using Facebook" ($M = 3.34$, $SD = 1.23$, $\alpha = .88$). Narcissism was measured by the 13-item version of the Narcissistic Personality Inventory (NPI-13)[30]. The inventory comprises three components of trait narcissism: need for leadership/authority (e.g., "I like having authority over other people"), grandiose exhibitionism (e.g., "I like to look at myself in the mirror"), and entitlement/exploitativeness (e.g.,

"I find it easy to manipulate people") ($M = 3.68$, $SD = .79$, $\alpha = .88$).

Reputational concern was measured by 4 items adapted from the work of Lee and Chung[24]. The respondents were asked to indicate the extent to which they agreed with the following statements: "I am concerned about people not reading my posts", "I am concerned about people having negative images of my postings", "I am concerned about people having negative evaluations of my Facebook", and "I am concerned about people having unfavorable impressions of my Facebook" ($M = 3.35$, $SD = 1.41$, $\alpha = .94$).

To measure the degree to which a person expects others to respond to his/her posts, a scale was partially modified from the research of Lee[28]. The scale comprises three items (e.g., "I expect others to respond to my postings when I compose the posts", "If no one responded to my postings then it would be sad") ($M = 3.79$, $SD = 1.41$, $\alpha = .90$), and demographic information (e.g., gender, age) was also collected.

3. Results

Pearson correlations, means, and standard deviations between the variables are presented in Table 1. Linear regression analyses were conducted to test the mediation effects of reputational concern and expectation of others' response on the relation between narcissism and SNS fatigue. Based on the guidelines of Baron and Kenny, it was examined whether the requisite steps of mediation were met[31]. The first step is to establish that the independent variable (narcissism) influences the dependent variable (SNS fatigue). It was found that narcissism had a significant positive relationship with SNS fatigue ($\beta = .267$, $p < .001$). The second step is to demonstrate that the independent variable (narcissism) influences the mediators (reputation concern and expectation of others' response). It was also found that narcissism had a significant positive relationship with each mediator ($\beta = .287$, $p < .001$ and $\beta = .346$, $p < .001$, respectively). The third step is to determine whether the mediators influence the dependent variable (SNS fatigue). It was found that both mediators had significant positive relationships with SNS ($\beta = .445$, $p < .001$ and $\beta = .240$, $p < .001$, respectively). The final step is to demonstrate that a significant reduction occurred in the relations between the independent variable (narcissism) and the dependent variable

Table 1. Correlations and Descriptive Statistics

Measure	1	2	3	4	<i>M</i>	<i>SD</i>
1. Narcissism	–	.29**	.35**	.27**	3.68	.79
2. Reputation concern		–	.66**	.44**	3.35	1.41
3. Expectation of others' response			–	.24**	3.79	1.41
4. Social networking site fatigue				–	3.34	1.23

* $p < .05$, ** $p < .01$

Table 2. Regression Analyses for Mediation Effects

Predicting Variable (A)	Mediator(B)	Outcome Variable(C)	Path	Standard β	<i>F</i>	Adjusted R^2
Narcissism	Reputation Concern	Facebook Fatigue	A → B	.287***	29,300***	.079
			B → C	.445***	80,695***	.195
			A → C	.267***	25,199***	.069
			A → C (B Ctrl.)	.152**	45,776***	.214
Narcissism	Expectation of Others' Responses	Facebook Fatigue	A → B	.346***	44,482***	.117
			B → C	.240***	19,995***	.055
			A → C	.267***	25,199***	.069
			A → C (B Ctrl.)	.210***	17,362***	.091

* $p < .05$, ** $p < .01$, *** $p < .001$

(SNS fatigue) after accounting for the variance attributed to the mediators. Specific statistics are shown in Table 2. The statistical significance of mediated effects was determined by obtaining a Z-score[31,32]. Significant Sobel z verified the effects of partial mediation for both mediators: reputation concern ($Z = 4.07, p < .001$) and expectation of others' responses ($Z = 3.63, p < .001$).

4. Discussion

In sum, individuals high in narcissism expend considerable effort to maintain their grandiose and exhibitionistic selves through positive feedbacks on Facebook, resulting in exhaustions from psychological fatigue. In particular, narcissists high in level of reputational concern tend to experience more Facebook fatigue, and narcissists who constantly require other people's responses also tend to experience a high level of Facebook fatigue.

With these results, this research contributes to the theoretical understanding of psychological fatigue from using

Facebook. While preceding studies have mainly focused on the antecedents of Facebook fatigue[3,4,16], this research aimed to investigate the process through which antecedents induce psychological distress. Narcissism has been found to be positively associated with Facebook fatigue. However, this research not only identified factors underlying the distress that narcissistic users experience, but further found mediation effects closing a theoretical gap. Moreover, the results also shed light on a new perspective on narcissistic active SNS users. As previously found, narcissistic SNS users to be identified as "active users"[10,11,23], but it is interesting that such active users are more likely to experience psychological fatigue from using Facebook, as they are more devoted to the service than general users.

This research also has practical implications for the gigantically expanding SNS market by providing grounds for service operators to manipulate the level of exposure on SNSs. While narcissists tend to upload more self-portrayed postings in order to promote themselves on SNSs[8], they are more likely to experience fatigue from the public evaluations on such sites. Such evaluations could hardly be decreased no

matter what type of platform they utilize as long as the evaluations from others are exposed to the public. In this sense, it would be practically helpful if service operators adjusted the level of exposure to the public rather than controlling users' concerns and expectations in order to make Facebook activities sounder. Equipping such new features would help reduce concerns about reputation and response expectation among users. Although exposing *Likes*, comments, or *Shares* publicly on Facebook is one of the strengths that users might recognize, it might be worth considering a long-term view by alleviating potential exhaustions.

Based on this study, some of future research can be suggested. First, the types of SNSs examined could be more diversified. The present study focused on Facebook users, because it is the most widely and actively used SNS. A statistical portal "Statista", headquartered in Germany, surveyed the most famous SNSs worldwide as of April 2018[33]. Facebook ranked the 1st, and YouTube, WhatsApp, WeChat, Instagram, and Tumblr followed in order. Though each of these sites allows people to share their lives online, there are different motivations for using various types of SNSs[34-36]. Given that individuals high in narcissism might experience SNS fatigue through different psychological factors, it would be worth collecting more data to expand the present results on Facebook to widely used SNSs. Moreover, the effect of gender and age could be considered. In the present study, reputational concern fully mediated the relations between narcissism and Facebook fatigue for male users, resulting in an insignificant coefficient when it was accounted for as the mediator ($\beta = .106, r = .151$). The fully mediating effect of reputational concern also appeared for users in their 30s ($\beta = .073, r = .437$) and 40s ($\beta = .073, r = .448$). Expectation of others' responses also showed full mediation for those in their 30s ($\beta = .136, r = .183$). Acknowledging that motivation and communicating behaviors differ in general on social media by gender and age[37], research on these factors would provide a richer explanation for what users feel until they reach Facebook fatigue. Finally, research could further examine means to lessen the level of reputational concern and expectations of others' responses. Online societies provide limited sources to develop personal relationships, so it is somewhat inevitable the reputation and evaluation would constitute signals of trust[38]. Thus, narcissistic users might always be eager to gain high reputation and have high expectations, but temporal control of

such eagerness would decrease active users' concerns and help narcissistic Facebook users alleviate their fatigue.

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