

The Effects of Stress and Life Satisfaction on Smartphone Addiction in College Students

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Abstract

This study was conducted to examine the effects of stress and life satisfaction on smartphone addiction. To do this, 1,600 college students were surveyed and 1,509 people were analyzed using SPSS ver. 23.0. The results of the study are as follows. The variables of stress and life satisfaction which affect the smartphone addiction of college students showed that 7 of the 20 variables had a significant effect on smartphone addiction, the explanatory power (R²) was 25.2% in total. In particular, stress of appearance (14.1%), college life satisfaction (4.4%), relationship stress with opposite sex (2.4%), academic problems stress (1.7%) and relationship stress with parent (1.0%) showed that the explanatory power is high. Based on these results, in order to prevent smartphone addiction among college students, we sought to reduce stress and increase life satisfaction, and suggested the necessity of follow-up study considering environmental factors.

Keywords: Smartphone addiction, Stress, Life-satisfaction, College students

1. Introduction

As they attend college, they face new developments such as experiencing various changes in the physical, social, and cultural environment, and making independent decisions, new relationships, and economic independence from employment. Changes in the free time and environment in which their choices are given are stressful for college students[1]. While there are students who adapt well to these changes, some students respond negatively to change, which can increase stress and lower quality of life. In particular, the stress level perceived by college students is very high, and various psychological and social problems are increasingly appealing [2].

College students may become addicted by excessive immersion into the Internet or smartphone if negative emotions or tensions increase due to excessive stress [3]. Particularly, it is necessary to pay attention to the problem of poisoning of professional college students who

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have to prepare for employment as soon as they enter the university because they finish college life in a relatively short period of time compared with university students.

The average daily usage time of smartphone users was 406 minutes[4], which is 2.2 hours more than the average of 4.6 hours in Korea [5].

College students are at high risk for smartphone addiction because of their high accessibility, convenience, diversity of content, freedom to use smartphone, information retrieval for task creation through smartphone, learning using smartphone Programs, and so on [6]. Smartphones used for a variety of functions such as the Internet, games, Social Network Service (SNS), MP3, and DMB may increase the amount of time the device is used rather than a general mobile device, and gradually lead to serious problems of intoxication [7]. This study suggests that the stress experienced by college students may not only expand to addiction problems such as smartphone addiction but also increase the level of addiction.

Most studies on the factors of smartphone addiction report that smartphone addiction is related to many psychological and behavioral problems. As the intensity of the addiction is relatively higher than that of the Internet and mobile phone, those who are addicted to the smartphone are more likely to suffer physical problems (such as turtle neck syndrome, wrist tunnel syndrome, blurred vision and shoulder stiffness), anxiety, depression, Maladjustment difficulties, interpersonal difficulties, and emotional and behavioral maladjustment problems, as well as emotional and behavioral maladjustment problems can be extended to serious crimes such as violence and murder [8].

In the previous studies, college students were selected to cope with negative emotions due to stress [9][6]. Kim & Lee have found that internet addiction is a stressful way of obtaining pleasures that are difficult to obtain in the real world, or as a means of alleviating suffering. The stress experienced in college life can be assumed to be an important predictor of the addictive use of smartphone.

It is necessary to pay attention to life satisfaction of professional college students due to environmental factors along with stress which is an individual factor affecting smartphone addiction. The satisfaction of college life is an important concept that can affect the overall quality of life and future problems of university students [11], in order to understand the problem of maladjustment of college students, low life satisfaction is a part that can not be ignored [12].

Previous research shows that there is not enough research on the relationship between smartphone addiction and life satisfaction. In particular, considering the fact that the majority of studies were directed at college students, or that the number of subjects was extremely low, studies that examine the relationship between stress, life satisfaction, and smartphone addiction in college students nationwide are very meaningful have. The purpose of this study is to investigate the effect of stress and life satisfaction on smartphone addiction in the nationwide college students.

2. Research method

2.1. Subject

The purpose of this study was to examine the effect of stress and life satisfaction on the addiction of smartphone users in college students. The questionnaire was conducted on 1,600 college students across the nation, and 1,509 respondents were analyzed. According to the gender of the respondents, 591 (39.2%) were male and 918 (60.8%) were female.

2.2. Measurement scale

Stress and life satisfaction were revised and used in the psychological health domain and contents developed by Korea Youth Policy Institute (2011). Stress consisted of 12 questions (parent, sibling, appearance, health, economy, friend, reason, juniors, teacher relationship, career, academic problem) College students responded with a four-point scale ranging from ‘not receiving at all (1 point)’ to ‘receiving very much (4 points)’. The reliability was .888 in this study. Life satisfaction consisted of 8 items (relationship with parent, friend, teacher, economic living standard, leisure life, school life, academic performance, health). College students responded with a 4-point scale ranging from ‘very dissatisfied’ (1 point) to ‘very satisfied (4 points)’ and the reliability was .865.

In order to measure Smartphone addiction, Korean-style Smartphone addiction developed by the National Information Society Agency (2011) was used and its internal consistency reliability was .893.

2.3. Analysis of materials

In this study, we conducted a hierarchical multiple regression analysis to identify the sub-variables of stress and life-satisfaction affecting the smartphone addiction, and confirmed the multiple communicative problems among the variables with the Durbin-Watson number. The statistical program used was SPSS Ver. 23.0.

3. Result of research

A hierarchical regression analysis was conducted to investigate the variables that explain smartphone addiction better than the sub-variables of stress and life satisfaction.

Table 1. A hierarchical regression analysis of stress and life satisfaction for smartphone addiction.

Model	<i>R</i>	<i>R</i> ²	ΔR^2	Std. error	Statistical variation				
					<i>R</i> ²	<i>F</i>	<i>df</i> ₁	<i>df</i> ₂	Probability of significance
1	.376	.141	.141	7.709	.141	248.207	1	1507	.000
2	.430	.185	.184	7.513	.044	80.591	1	1506	.000
3	.457	.209	.207	7.405	.024	45.229	1	1505	.000
4	.476	.226	.224	7.325	.017	33.930	1	1504	.000
5	.486	.236	.233	7.282	.010	18.939	1	1503	.000
6	.491	.241	.238	7.258	.005	10.802	1	1502	.001
7	.497	.247	.243	7.234	.006	11.279	1	1501	.001
8	.500	.250	.246	7.222	.003	5.957	1	1500	.015
9	.502	.252	.247	7.215	.002	3.899	1	1499	.048

As a result of examining the stress and life satisfaction affecting the smartphone addiction of college students by sub-factors, it was found that 7 variables of total of 20 variables had a significant effect on smartphone addiction. Total explanatory power (*R*²) of smartphone addiction was 25.2%.

The variables with high explanatory power mainly on the change of *R*² are as follows: appearance stress, university life satisfaction, relationship stress with relationship, academic stress, relationship stress with parents, relationship with professor stress, academic

performance satisfaction, and leisure power. The Durbin-Watson score of 1.921, which is close to the score of 2, because there is no autocorrelation and it is proved to be independent.

In summary, the major stressors and life satisfaction subscales affecting smartphone addiction in college students are appearance stress (14.1%), university life satisfaction (4.4%), relationship stress with reason (2.4%), (1.7 percent) and stressed relationships with parents (1.0 percent). In other words, stress on appearance, relationship with reason, stress on academic problems, and stress with parents are likely to lead to smart addiction. On the other hand, high school life satisfaction shows that they do not fall into smartphone addiction.

4. Discussion

The purpose of this study was to investigate the effects of stress and life satisfaction on smartphone addiction among professional college students across the nation and to provide practical implications for prevention and counseling of smartphone addiction. The effects of stress and college adjustment on the addiction of smartphone were analyzed. Stress factors affecting the addiction of smartphone were appearance stress, relationship stress with relationship, stress on academic problem, relationship stress with parents, relationship stress with friend, appearance stress showed the highest explanatory power, Relationship stress, and relationship stress with parents.

These results are consistent with the results of a study [15] in which children's internet addiction was more severe as the relationship between college students and parents was worse. In addition, the results are consistent with the results of a number of studies [16], which show that students are more likely to be addicted to the Internet due to academic stress, reason and friendship stress. In addition, it is similar to the results of research showing that interpersonal relationships and social development are lowered when the degree of addiction to the smartphone is high [17]. In another study, those who showed a tendency to addiction to the smartphone showed a more positive attitude toward the interpersonal relationship than the offline situation, suggesting that they prefer the online interpersonal relationship and continue the vicious cycle of avoiding the offline interpersonal relationship [18].

These results suggest that stress intervention experienced by college students may be effective in preventing smartphone addiction early on. Therefore, it will be necessary to identify the stress areas and levels of the individual 's addiction prevention programs, and make efforts to specify their approach accordingly. In order to prevent various maladjustment such as addiction, depression, anxiety caused by stress experienced by professional college students in various relationships (parent, reason, friend, professor, etc.), counseling and education on interpersonal skills, conflict management, Suggesting that it needs to be provided. Employment results in stress on new jobs and work, stress on relationships with a variety of people at different ages and positions. Therefore, actively coping with stress will help students who graduated from college not only prevent smartphone addiction, but also improve their post-employment adjustment and increase the rate of continuing employment.

References

- [1] H. J. Woo, "A study on the influence of mobile phone users' self-traits on mobile phone addiction focusing on self-esteem, self-efficacy, and self-control," *Korean Journal of Broadcasting and Telecommunication Studies*, vol.21, no.2, pp.391-427, (2007)
- [2] D. H. Lee and S. W. Kang, "Academic and personal stress patterns of college students: Developing campus-wide stress management interventions," *The Korea Journal of Counseling*, vol.7, no.4, pp.1071-1091, (2006)

- [3] A. C. Douglas, J. E. Mills, M. Niang, S. Stepchenkova, S. Byun, and C. Ruffini, "Internet addiction: Meta-synthesis of qualitative research for the decade 1996-2006," *Computers in Human Behavior*, vol.24, pp. 3027-3044, **(2008)**
- [4] J. A. Ahn, "A study on the smartphone use behavior and addiction of university students: Focused on effect of depression, impulsivity and interpersonal relation, campus life," *Journal of Communication Science*, vol.16, no.4, pp.128-162, **(2016)**
- [5] M.S. Kwon, K.W. Nam, and B.K. Seo, "The survey on internet overdependence", National Information Society Agency, **(2016)**
- [6] S. R. Jung, "The effect of female university students' stress about campus life has on smartphone addiction : the mediating effect of depression," M.S. thesis, Seoul Women's University, **(2014)**
- [7] H. S. Jeon and S. O. Jang, "A study on the influence of depression and stress on smartphone addiction among university students: focused on moderating effect of gender," *Korean Journal of Youth Studies*, vol.21, no.8, pp.103-129, **(2014)**
- [8] K. S. Ko, "A study on the mediating effect of depression between smartphone addiction and school adaptation of university students," *Journal of School Social Work*, vol.32, pp.189-216, **(2015)**
- [9] J. Y. Kang, "The effect of stress and the way of stress coping, impulsivity of employees on smart-phone addiction," M.S. thesis, Catholic University, **(2012)**
- [10] N. S. Kim and K. E. Lee, "Effects of self-control and life stress on smartphone addiction of university students," *Journal of The Korea Society of Health Informatics and Statistics*, vol.37, no.2, pp.72-83, **(2012)**
- [11] S. Y. Kim, "The moderating effects of self-concept and religion on the relationship between daily stress and school-life satisfaction for college students," *The Journal of Yeolin Education*, vol.21, no.1, pp. 257-278, **(2013)**
- [12] K. H. Park and Y. S. Hah, "Depression, self-efficacy, life satisfaction and coping behaviors of university students," *The Korean Journal of Stress Research*, vol.15, no.1, pp.17-25, **(2007)**
- [13] K.W. Shin, D.L. Kim, and Y.J. Jung, "Development of Korean smartphone addiction proneness scale for youth and adults," Seoul (KR): National Information Society Agency, pp.85-86, **(2011)**
- [14] National Youth Policy Institute, "A study on mental health improvement policy for children and adolescents," **(2011)**
- [15] J. H. Kim, "The mediating effects of self-control and health promoting lifestyle in the relationship between life stress and adjustment to college life among college students," M.S. thesis, Ewha Womans University, **(2012)**
- [16] J. Y. Kim and S J. Lee, "A study on the relationship between internet addiction and stress of college students," *Journal of The Korea Society of Computer and Information*, vol.12, no.3, pp.243-250, **(2007)**
- [17] S. J. Cho, "The relationship between smartphone addiction and self-Esteem, impulsiveness and sociability among high school students," M.S. thesis, Sogang University, **(2012)**
- [18] K. M. Son, "Differences in on offline interpersonal relations with middle school students," M.S. thesis, Ajou University, **(2013)**

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