

# Common and Different Predictors of Habitual Behavior and Smartphone Behavior in Smartphone Addiction

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## 스마트폰 중독에 있어 습관적 사용 행위와 중독적 사용행위의 주요 영향요인

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### 요약

In smartphone addiction, there are two meaningful concepts: habitual smartphone behavior and addictive smartphone behavior. Using the predictors of habitual smartphone behavior and addictive smartphone behavior to understand smartphone addiction holds significance. This study aimed to investigate the common and different predictors of habitual smartphone behavior and addictive smartphone behavior in smartphone addiction. We studied 1,039 smartphone users using online surveys conducted between January 2 and January 31, 2019. A multivariate regression analysis was applied to identify the crucial predictors of habitual smartphone behavior and addictive smartphone behavior. Social network services/chatting, games, and entertainment app usage are common predictors of habitual smartphone behavior and addictive smartphone behavior. However, habitual smartphone behavior has a significant relationship with web usage, lifestyle app usage, weekly usage frequency, and the average smartphone weekend usage time. Addictive smartphone behavior has significant relationships with shopping app usage and sleeping time. This study provides the common and different predictors of habitual smartphone behavior and addictive smartphone behavior in smartphone addiction. The crucial predictors can be used to develop monitoring technology for smartphone addiction.

### 1. Introduction

Smartphone addiction can endanger people's mental health and physical health and negatively affect their social life [1-3]. Thus, many studies have attempted to identify the reasons and predictors of smartphone addiction [4-7]. The lives of modern people are closely related to the use of smartphones. In the case of South Korea, 19.1% of people are smartphone addicts. The proportion of smartphone addiction is increasing in preschoolers (3-9 years old) and seniors over 60 [8]. Thus, there is a limit to simply using

smartphone usage time to understand smartphone addiction. Smartphone addiction does not simply mean overusing a smartphone. We need to examine smartphone behavior in depth.

There are two meaningful concepts in smartphone addiction: habitual smartphone behavior and addictive smartphone behavior [9]. Habitual smartphone behavior means repeated usage without self-instruction or conscious thinking. Addictive smartphone behavior means intensive smartphone usage with failure to control the behavior despite significant harmful consequences.

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smartphone behavior in smartphone addiction.

## 2. Methods

### 2.1 Participants

We recruited 1,039 smartphone users from online surveys conducted between January 2 and January 31, 2019. We recruited smartphone users among an online panel of a professional polling company. All participants completed an anonymous web-based survey.

### 2.2 Statistical analysis

The 1,039 smartphone users were analyzed using R (ver. 3.5.0) to conduct multivariate regression analysis.

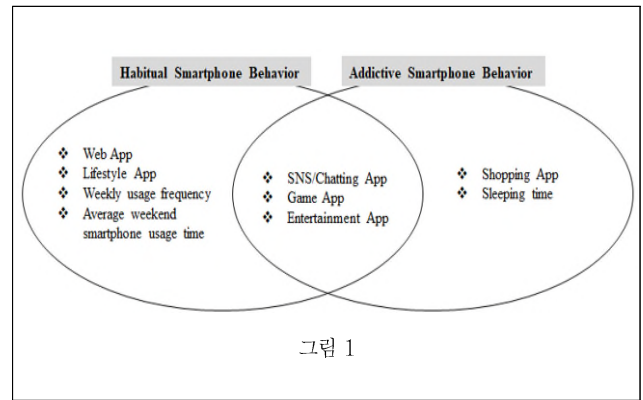
## 3. Results

### 3.1 Participants' characteristics

A total of 50% of the respondents were male. The respondents' ages ranged from 20 to over 59 years. A total of 54.1% of the respondents were in a relationship. A total of 66.9% of the respondents belonged to the group consisting of office workers, administrative professionals, service industry professionals, professional technicians, freelancers and production employees. Of the respondents, 57.5% have an income of over \$1,792.11. In addition, 63.2% of the respondents lived in the capital area, and 82.9% had Android phones.

### 3.1 Predictors of Habitual and Addictive Behavior

Figure 1 show the results of the multivariate regression analysis to identify the risk factors that predict habitual smartphone behavior and addictive smartphone behavior.



[Fig. 1] Predictors of Habitual and Addictive Behavior

## 4. Conclusions

We identified the common and different predictors of habitual smartphone behavior and addictive smartphone behavior. Based on the results of this study, we drew the following discussion. First, the usage of SNS/chatting, game, and entertainment apps is a common predictor of habitual smartphone behavior and addictive smartphone behavior.

Next, we found that habitual smartphone behavior has a significant relationship with the usage of web and lifestyle apps, weekly usage frequency, and average weekend smartphone usage time. This study found significant variables in addictive smartphone behavior. In this study, addictive smartphone behavior means intensive smartphone usage with failure to control the behavior despite significant harmful consequences. Finally, we found relationships with sleeping time and addictive smartphone behavior. Our wellness is greatly influenced by having sufficient sleep [10].

Both the addictive use and habitual use of smartphones are considered pathways to smartphone addiction. Habitual and addictive smartphone behaviors are similar features but they have different. In case of addictive smartphone behavior, absolute use time or number of usage times does not significantly affect smartphone addiction. Certain apps content or night time usage may be more relevant, so when screening, preventing, or intervening smartphone addiction, it is more important to evaluate apps that you use, night usage, rather than usage time. Accordingly, there should be a difference between prevention and intervention between habitual and addictive smartphone behavior.

We provide meaningful predictors of habitual smartphone behavior and addictive smartphone behavior. These common and different predictors can be understood and used to develop monitoring and prevention services for smartphone addiction. We performed on usage characteristics that predict and distinguish habitual and

addictive behavior in smartphone use.

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