The Effects of Middle School Student’s Depression on School Life Adaptation: the Mediating effect of Mobile Phone Dependency

Wankyeong Lee¹, Soongyu Kim²

¹Dept. of Social Welfare, Chonbuk National University
567 Baekje-daero, Deokjin-gu, Jeonju-si, 54896 South Korea
Smileboy1109@nate.com

²Dept. of Social Welfare, Chonbuk National University
567 Baekje-daero, Deokjin-gu, Jeonju-si, 54896 South Korea
Corresponding Author: soongyu@jbnu.ac.kr

Abstract. This study investigated the mediating effect of mobile phone dependency on depression and school life adaptation among South Korean middle school students. The data for this study came from 2,119 middle school students participating in the Korean Youth Panel Survey (KYPS) wave 3, given in 2012. The results are as follows: first, depression and mobile phone dependency have a negative effect on school life adaptation. Second, mobile phone dependency partially mediates the effects of middle student’s depression on their school life adaptation. In conclusion, the implications of these results are discussed.

Keywords: Middle School Student, Depression, School Life Adaptation, Mediating Effect, Mobile Phone Dependency

1 Introduction

Interest in adolescent mobile phone addiction has been increasing due to the universal use of mobile phones, especially smart phones, by teens. According to the Internet Addiction Survey 2011, adolescents showed a higher smart phone addiction rate of 11.4 percent than did adults (7.9 percent) [1]. Excessive use of mobile phones can lead to decreased concentration, poor academic achievement and even reduced frequency of meetings with friends and relatives [2]. Disruptions in everyday life as well as physical maladies such as eye strain, muscle pain, and brain and neurological disorders have also been reported, leading to a general negative effect on adolescents’ health [3] [4].

There are many studies on mental health issues related to mobile phone dependency, especially on the influence of depression. This is because depression is one of the most common influential factors given by previous studies on mobile phone dependency. Depression is identified as the factor that has the highest predictive power for
adolescents’ excessive and addictive use of mobile phones [5]. Depression is also considered to be closely connected to school life adaptation [6].

Meanwhile, previous studies investigated the relationship between smart or mobile phone dependency and school life adaptation and confirmed that a high level of mobile phone dependency can have a negative influence on school life adaptation [7]. Therefore, the present study investigated the influences of depression and mobile phone dependency among middle school students on their school life adaptation. The influence of mobile phone dependency on the relationship between depression and school life adaptation was also confirmed.

2 Research methods

2.1 Research model and questions

The research model of this study is shown in Figure 1 and the research questions are as follows:

[Question 1]: Do depression and mobile phone dependency among middle school students have a negative effect on their school life adaptation?

[Question 2]: Does mobile phone dependency have a moderating effect on depression and school life adaptation among middle school students?

![Fig.1. Research model](image)

2.2 Research subjects and Measurement tools

The subjects chosen for this study were 2,351 first year middle school students in Korea. Data was collected from the results of the Korea Youth Child Panel Survey (KYCPS) wave 3 (2012), which was conducted by the National Youth Policy Institute. From this data, a total of 2,119 student responses were used in the final analysis, with the exception of those responses containing insufficient or nonsensical answers.
The depression, school life adaptation, mobile phone dependency tool used in this study.

3 Research Results

Through a factor analysis, school life adaptation was divided into four variables, and depression and mobile phone dependency were divided into two variables for each. Through item parceling, unidimensionality was guaranteed. The skewness and kurtosis of each variable were absolute values of .081 - .325 and .024 - .831. Therefore, it was considered that the hypothesis of normality is correct. When analyzing the correlation among the main variables, depression and mobile phone dependency were positively correlated (.268, p<.001), while depression and school life adaptation were negatively correlated (-.274, p<.001) and mobile phone dependency and school life adaptation were also negatively correlated (-.191, p<.001). There was no variable with high correlation (more than 0.8), which indicates that there are no multicollinearity problems among the variables.

According to a two-step approach, we conducted a confirmatory factor analysis to evaluate the fit of the measurement model. The measurement model in this study was found to be fit. The factor loadings of the measuring variables on the individual latent variables were .445 ~ .904 at p<.001, indicating that the measuring variables adequately explain individual latent variables.

The structure equation modelling analysis was conducted to verify the research question number 1. The results showed that the model fitting parameters were $\chi^2$=100.725(df=17, p<.001), NFI=.979, CFI=.982 and RMSEA=.048; this confirmed our hypothesis. When examining the analysis results based on non-standardized coefficient, it was confirmed, first, depression and school life adaptation were negatively correlated with a value of -.165 (CR=-9.870, p<.001). Second, depression and mobile phone dependency were positively correlated with a value of .254 (CR=11.633, p<.001). Lastly, mobile phone dependency and school life adaptation were negatively correlated with a value of -.104 (CR=-5.325, p<.001).

The bootstrapping method was carried out to verify the research question number 2. A total effect of depression on school life adaptation was -.364 and its direct and indirect effects were -.157 and -.050, respectively. Mobile phone dependency partially moderated depression and school life adaptation. It can be interpreted that these are statistically significant.

4 Conclusions and Implication

The results of this study are as follows. First, in terms of the research question number 1, it was confirmed that depression has a negative effect on school life adaptation. Second, in terms of the research question number 2, it was confirmed that mobile
phone dependency partially moderates the relationship between depression and school life adaptation.

The implications of these results are as follows.

First, links between schools and mental health centers as well as appropriate infrastructure are needed in order to take care of the mental health of middle school students.

Second, educational programs to prevent and deal with middle school students’ mobile phone dependency need to be developed.

References