

Determinants of Online Problematic Behavior among Teen Users: Data from South Korea

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The rise in problematic online behavior patterns is reflected in the growing use of the Internet. As more children and adolescents use the Internet, no longer are they immune from these issues. To date, most research related to online behavior has focused on the behavior of young people in their late teens, adolescents, or college students. This study, however, focuses on mid-teens, since it is this segment of the youth population which is spending more time using and becoming familiar with computers and the Internet. This is also the age group in which the influence of peers begins to grow stronger than that of parents. Furthermore, initial experimentation with drugs, alcohol and other problematic behavior starts to occur. The purpose of this study is to provide an outline of the factors which influence each type of problematic online behavior by mid-teens. Such behaviors include spreading false information, unauthorized software use, unauthorized ID use, falsifying one's ID, hacking and online bullying.

A number of theories have been developed to explain delinquent behavior, with three primary ones among them. They are social control theory, social learning theory, and interactional theory. Social control is one of the most frequently and widely used theories. This theory claims that criminality is the absence of self-control (Gottfredson & Hirschi, 1990). Criminologists, however, have discovered that even after accounting for low self-control, association with deviant peers still has a relationship to crime. Social learning theory, in contrast, suggests that there is no natural impulse toward delinquency or crime, and that delinquency must be learned through the same processes as confirming behavior (Akers, 1985). That is, family and friends represent the most salient sources of differential association, while the probability of engaging in crime and deviance is higher for individuals who are more exposed to models of criminal behavior from these salient others. As for interaction theory, Thornberry (1987) asserts that human behavior develops dynamically over time as people interact with one another and due to the consequences of prior behavior. That is, delinquent behavior may have reciprocal causal influences on variables such as parent-child attachment and commitment to school. Recent studies on online problematic behavior have focused on online piracy, while online bullying has become another topic of research. Other studies have covered topics such as online social interaction, SNS site usage analysis, and addictive or compulsive use of the Internet and computers, just to name a few. Particularly in South Korea, relatively more studies have been done on adolescents' addiction to online games or to the Internet. No research has been undertaken to investigate the influence of each type of problematic offline behavior on each type of problematic online behavior. This study will contribute to identifying the factors regarding each type of problematic online behavior among mid-teens in South Korea.

The data used in this study was third wave data taken from the Korea Youth Panel Survey which was accumulated over a six-year period. Second-year middle school students, or 8th graders, residing in Seoul and other provinces in South Korea were selected as subjects at the program's onset in 2003. The sample size for the current study was 3,124 after all responses were screened. Problematic online behavior was defined in this study as the illegal or immoral behavior which occurs when an individual is online. Six types of problematic online behavior were analyzed in this study as dependent variables, including spreading false information/rumors, unauthorized software use, unauthorized ID use, falsifying ID while chatting online, hacking and online bullying. A questionnaire on the problematic behavior of respondents and their friends were used as independent variables. Questions on the problematic offline behavior of peers totaled eight in all, and focused on the number of friends who have experienced these. Questions regarding respondents' problematic behavior were composed of 14 inquiries about the frequency of these. A large number of studies have utilized variables regarding self-control as a significant factor in social control theory, and parental attachment, warmth, or relationship as a factor in social bonding or as a source of differential association. Hence, self-control, parental attachment, monitoring were examined, as well. In addition, other individual-level variables, such as gender, rank in class, health condition including both physical and mental health, time spent on the computer or Internet, and household income, were included.

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The six problematic online behavior models were significant, based on the likelihood ratio chi-square test. Regarding the first type of problematic online behavior, "intentionally circulating false information on Internet bulletin boards," none among the peer related variables appeared significant. Regarding respondents' own problematic behavior, 'fights' and 'assaulting someone' were found to be significant, although the influence of 'assaulting' was negative. 'Time spent on the computer' and 'self-control' were also found to be significant. In the second model, "using unauthorized software," these are significant variables. Peer's 'petty extortion' showed a negative influence, which is an interesting facet in particular. In contrast, when it came to respondents' own experience with 'stealing,' the influence was positive. Other individual-level variables included parental monitoring, percentile rank in class (the higher the rank, the lower the possibility of using an unauthorized software), mental health (the more depressed, the higher possibility), and gender (for males, the odds increased by 151.3%). In the third model, "using an unauthorized internet ID or resident registration number of another person during the past year," number of friends who smoke found to be significant. As for the respondent's problematic behavior, 'smoking,' 'taking part in a fight,' and 'stealing' appeared to be significant. Other variables such as self-control, mental health/depression, computer use, and gender were also found to be significant. The fourth model was about "falsifying one's gender or age while chatting on the Internet during the past year." In fact, none of the peers' problematic behavior was found to be significant, while two behaviors among 'self' problematic behaviors, namely "running away from home," and "stealing," were significant. Additionally, mental health/depression, computer use, household income, and gender were significant. The fifth model was in regard to "hacking." The number of close friends who have been suspended/expelled from school and have drunk alcohol were found to be significant. As for 'self' problematic offline behaviors, 'petty extortion' and 'stealing' appeared significant. In particular, difference in gender was noticeable. Parental monitoring was expected to be negatively related to problematic online behavior, which based on the findings turned out to be not true. The final dependent variable was "cursing or insulting other people in chat rooms or on bulletin boards during the past year." Regarding peer problematic behavior, 'drinking alcohol' found to be significant. 'Participating in a fight' and 'stealing' appeared to be significant among 'self' problematic behaviors. Self-control, daily minutes of computer use, and gender were also significant variables. Overall, the influence of peers appeared to be relatively smaller than the influence of a respondent's own problematic behavior. Hence, it can be interpreted that a respondent's problematic online behavior depends much more on the respondent's own problematic behavior than on a peer's. Peers can be selected by an adolescent who has similar characteristics, while peers might not have any critical influence on an adolescent's delinquency or problematic behavior. In this light, further research needs to be done. The frequency of respondents' experience 'taking part in a fight' and 'stealing' seemed to be the most repeatedly found variables, and the size of the influence of each seemed greater than the others. 'Assaulting someone' in 'self' problematic behavior showed a negative influence. Such a result can be interpreted in that for teens who do and can work off the frustration by assaulting someone, the desire to 'log on' in order to cope with troubles in their daily life would be less than for the ones who do not (or cannot). As for the negative influence of the number of close friends committing 'petty extortion' and 'stealing,' one possible interpretation is that because respondents can obtain things from close friends who gained the objects themselves through 'petty extortion' or 'stealing,' they become less likely to commit online problematic behavior. As for 'smoking' and 'drinking,' the results were mixed. Further investigation needs to be done to interpret this aspect. 'Self-control' was significant in three models. However, it turned out to be a non-significant variable in 'unauthorized software use,' unlike in previous studies on online piracy. In addition, it was positively related to 'falsifying ID,' although it was not significant. In regard to chatting online with strangers, falsifying one's own age or gender can be a method of self-protection, and thus it makes sense in this respect. 'One's academic rank in school' was found to be significant; a finding which shows the possibility that online piracy might be reduced through education. Parental attachment seemed to have no significant effect, yet parental monitoring appeared significant in both 'unauthorized software use' and 'hacking.' In adolescence, the overall strength of parental influence grows weaker than it once was, and in several studies, the negative effect of parental monitoring has been reported. The more that parents monitor, or visibly control, teens, the more teens were found to become involved in problematic behavior online unbeknownst to their parents. When teen users' mental health improves, problematic online behavior is less likely to happen in three models. A respondent's physical health also showed a significant effect with a lower likelihood of hacking as one's physical health improves. Responses related to gender difference showed results in accordance with past studies. Namely, the odds of occurrence of problematic online behavior by males were higher than those for females. The discrepancy was so large that an analysis on each gender needs to be done. 'Hours of computer use' was not significant in two models: 'online piracy' and 'hacking.' Considering that hackers already possess sufficient expertise to eliminate the need to stay online for a long time or struggle with getting used

to computer usage, such a result makes sense.

Problematic offline behavior and other variables having significant influence on problematic online behavior were identified, yet it seems that additional variables which have yet to be explored still exist. The current study used only cross-sectional data from the KYPS this time, while future research will need to be done using longitudinal data in order to discover more dynamic and thorough findings. One reason for this is that this period is a very critical stage to students in Korea; they encounter a new environment and the real competition to succeed on the university entrance exam begins at this point. Yet another reason is that the 3rd wave data showed a peculiar feature, namely that the number of deviant peer and 'self' problematic behavior decreased all of a sudden, and then increased again in later data.

It is clear that teens' problematic online behavior should be considered important not only to parents and schools, but to law enforcement and policy makers, as well. As has been observed in this study, teens become more deviant when parental monitoring gets severe. Hence, more education programs or counseling services for parents should be made available. One of the results showed that education can be a tool for prevention of teen users' problematic online behavior. To prevent the possible negative influence of deviant peers, online ethical/moral education programs should be initiated by schools. Any such education programs should be gender-specific, as well. That is, the level of education and/or the content should be differentiated according to gender. In addition to school-based education, indirect ways of addressing problematic online behavior such as using social networking sites to protect and help victims in cyberspace, making use of popular characters more attractive to teens (e.g. 'Angry birds') in notices that warn of the possible consequences of online piracy and online identity theft could be considered tools with which to prevent such behavior among teen users. Therefore, multiple stakeholders should actively address issues related to problematic online behavior by focusing particularly on users in their mid-teens since it is during this age period when such behaviors are first observed.

References

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