Journal of Adolescence 40 (2015) 48–53

Contents lists available at ScienceDirect

Journal of Adolescence

journal homepage: www.elsevier.com/locate/jado

International note: Teen users' problematic online behavior: Using panel data from South Korea

Jung Eun Kim, Jinhee Kim*

University of Maryland, College Park, MD 20742, United States

ARTICLE INFO

Article history:
Available online 23 January 2015

Keywords:
Adolescents
Problematic online behavior
Online delinquency
Digital socialization

ABSTRACT

The purpose of this study was to identify factors of teen users' problematic online behaviors using data from the Korea Youth Panel Survey (KYPS) collected over a four-year period. Problematic online behaviors included unauthorized ID use, disguising one's age or gender while chatting online, and cursing/insulting someone in a chat room or on a bulletin board. Results from the panel data analyses showed that many adolescents explored and discontinued engaging in online delinquency as they got older. Respondents' offline behaviors and self-control were significantly associated with problematic online behaviors, supporting the importance of internal traits. Peer effects were consistently more important than parental effects on teen's online delinquency. Increases in time spent using a computer also contributed to the likelihood of problematic online behaviors.

Internet penetration rates have already surpassed 80% in some countries (Internet World Stats, 2012), and in Korea, 99.9% of teenagers and 85.5% of children aged 3–9 years are using the Internet (Korea Internet & Security Agency, 2010). While most research regarding problematic online behavior has focused on high school or college students with small cross-sectional samples (Chen & Peng, 2008; Hinduja & Patchin, 2008), little is known about how adolescents develop and change problematic online behaviors over time.

Three major theories were identified to understand the factors of online delinquency (Morris & Higgins, 2010; Skinner & Fream, 1997). Self-control theory claims that people with low self-control are likely to pursue immediate desires and commit crimes. From a broader perspective, it is based on the internal trait model that attributes antisocial/deviant behaviors to intra-individual dispositions (Dishion & Patterson, 2006; Gottfredson & Hirschi, 1990). Social learning and interaction theories posit the importance of expectancy and modeling learning (Akers, 1985; Bandura, 1977; Sutherland & Cressey, 1974) and interaction with and reaction by others (Thornberry, 1987). Particularly, it argues that parents' influence starts to decrease while that of peers' becomes much greater during the teenage years, with both influences needing to be considered in studying online delinquency.

The purpose of this study was to identify factors of adolescents' problematic online behaviors using the Korea Youth Panel Survey (KYPS). This study focused on two factors guided by the aforementioned theories and the research literature. The first was self-control and respondents' experience of problematic offline behavior as personal/internal traits (Chung & Lee, 2010; Tak, Park, & Kim, 2007; Widyanto & McMurran, 2004; Ybarra, Diener-West, & Leaf, 2007). Second, social factors including parent–child relationship, parental monitoring, and deviant peer association were considered (Cho, 2010; Greenberg,

* Corresponding author.
E-mail address: jinkim@umd.edu (J. Kim).

http://dx.doi.org/10.1016/j.adolescence.2015.01.001
0140-1971/

Hofschire, Eastin, & Lachlan, 2002; Hong, Park, & Kim, 2007; Kim, 2001; Korea Education Development Institution, 2010; Park, Kim, & Tak, 2011; Park & Song, 2010; Skinner & Fream, 1997; Tak et al., 2007; Ybarra & Mitchell, 2004; Ybarra et al., 2007).

Method

Data and sampling

Data. The data came from the first through fourth waves (8th to 11th grades) of the KYPS, which was conducted by the Korea Youth Policy Institute (government agency) from 2003 to 2006. It is a longitudinal survey with a multiple-point prospective panel design, and the respondents were followed up annually. Second-year middle school students, the equivalent of 8th graders in the United States, residing in Seoul and other cities in South Korea, were study participants when the study began in 2003.

Sampling procedures. The total number of subjects was 3449 individuals in each wave. This study included in its sample those respondents who participated in every wave. After excluding the missing data from dropouts and unusable information in any wave, 2909 individuals from each wave were included. The final sample size for this study was 11,636 (male = 5,808, female = 5,828, strongly balanced panel data).

Measures

Dependent variables were (a) using an unauthorized Internet ID or resident registration number of another person (Korean resident registration numbers are similar to Social Security numbers in the United States. In Korea, people were required to provide this number to create online IDs prior to 2013. Underage youths, in particular, needed to use other people's identification information to create online IDs and gain access to websites), (b) disguising one's gender or age while chatting online, and (c) cursing/insulting someone in a chat room or bulletin board during the past year.

Independent variables. *Self-control* was measured by a 7-item composite scale composed of the following statements based on previous studies (Cho, 2010; Longshore, Turner, & Stein, 1998) reflecting the tendency of low self-control: "I wholeheartedly take part in exciting things even if I have to take an examination tomorrow," "I abandon a task once it becomes hard and laborious," "I am apt to enjoy risky activities," "I enjoy teasing and harassing other people," "I feel like I am a ticking time bomb," "I lose my temper whenever I get angry," and "I habitually don't do my homework." Responses were measured on a Likert scale and recoded reversely from 1 (strongly agree) to 5 (strongly disagree). The alpha coefficient for each wave was 0.675, 0.698, 0.702, and 0.694, respectively.

Respondents' problematic offline behavior was measured with 14 items regarding their experience such as smoking, drinking alcohol, and running away from home during the past year. The measurement *for problematic offline behavior of peers* was regarding whether respondents have close friends that had experienced any of the 10 problem behaviors such as being disciplined, suspended, or expelled from school during the past year. Responses to both respondents' and friends' problematic behaviors were binary types (0 = never, 1 = more than once) and summed to create a variable. The psychometric properties of the problem behavior scales have been published and described in previous research including Cho (2010) and Chung and Lee (2010).

Parent–child relationship was determined with a 4-question scale measuring the affection between respondents and their parents. The scale comprised the following statements on shared activities and emotional closeness based on previous research using the same data (Cho, 2010; Kong & Lim, 2012; Lee, 2009): "My parents and I try to spend much time together," "My parents always treat me with love and affection," "My parents and I have frequent conversations," and "My parents and I understand each other well." Responses were based on a Likert scale ranging from 1 (very untrue) to 5 (very true). The alpha coefficients were 0.817 in 2003, 0.842 in 2004, 0.841 in 2005, and 0.848 in 2006.

The scale *for parental monitoring* was constructed by summing the following 4 items on the extent to which a respondent's parents had knowledge/information on whereabouts and activities of their children (Stattin & Kerr, 2000; Steinberg, Fletcher, & Darling, 1994): "When I go out, my parents usually know where I am," "When I go out, my parents usually know whom I am with," "When I go out, my parents usually know what I am doing," and "When I go out, my parents usually know when I return." The alpha coefficients were 0.850 in the 1st wave, 0.869 in the 2nd wave, 0.885 in the 3rd wave, and 0.881 in the 4th wave. Responses were measured with a 5-point Likert format ranging from 1 (very untrue) to 5 (very true).

Additionally, respondents' psychological health problems (1 = very unlikely to 5 = very likely), time spent on computers (hours of computer use per day), percentile rank in class (lower numbers indicate a higher level of academic achievement), levels of father's education (years of schooling), log-transformed household income (per month), and gender were included as control variables. Lastly, time dummy variables were included to control for time period effects.

Data analysis

The current study undertook the analyses using panel logistic regression with STATA 12.0 statistical software. Panel regression models assume the error term decomposed in two components: a person-specific error (time-invariant) and an idiosyncratic error (time-varying) (Wooldridge, 2002). The most commonly used models are the random and fixed effects