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PARENTAL INFLUENCES ON ADOLESCENTS' RISKY MEDIA USAGE

A Thesis

Presented to

The Faculty of the Department of Child and Adolescent Development

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Dahyeon Jung

August 2020

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The Designated Thesis Committee Approves the Thesis Titled

PARENTAL INFLUENCES ON ADOLESCENTS' RISKY MEDIA USAGE

by

Dahyeon Jung

APPROVED FOR THE DEPARTMENT OF CHILD AND ADOLESCENT
DEVELOPMENT

SAN JOSÉ STATE UNIVERSITY

August 2020

Kim Tsai, Ph.D. Department of Child and Adolescent Development

Ellen Middaugh, Ph.D. Department of Child and Adolescent Development

Nadia Sorkhabi, Ph.D. Department of Child and Adolescent Development

ABSTRACT

PARENTAL INFLUENCES ON ADOLESCENTS' RISKY MEDIA USAGE

by Dahyeon Jung

The present study investigated how parenting styles influence adolescents' risky media usage and how these associations vary according to media-specific parenting practices and adolescent characteristics. Participants included 315 adolescents aged 13-18 in the United States, who completed questionnaires on parenting styles (i.e., authoritative, authoritarian, permissive), media-specific parenting practices (i.e., active conversational practices, coercive monitoring, preventive practices), and their depression, self-esteem, and risky media usage. Findings indicated all three parenting styles were associated with adolescent exposure to risk through media, but only authoritarian and permissive were related to internet addiction. Across parenting styles, adolescents with parents who engaged in high compared to low levels of conversational practices were at greatest risk for internet addiction. Furthermore, greatest risk exposure through media was evident among adolescents with authoritarian and permissive parents who engaged in high levels of conversational practices and among adolescents with permissive parents who engaged in high levels of coercive monitoring. Adolescents with most depressive symptoms, who were at greater risk for internet addiction, had permissive and authoritarian parents. In contrast, across parenting styles, adolescents with high self-esteem were less likely to have risky media usage. The present study highlights the importance of examining parental influences in conjunction with adolescents' characteristics in order to best understand the risk and protective factors for adolescent risky media usage.

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Introduction

With advanced technology, adolescents are exposed to media through various electronic devices that are available anytime and anywhere. About 95% of adolescents have access to a smartphone, and half of them report that they are constantly online (Anderson & Jiang, 2018). Additionally, about 97% of adolescents reported that they have at least one media device, including televisions, computers, video game consoles, and music players in their bedrooms (as cited in Cain & Gradisar, 2010). Adolescents' media consumption includes using applications, playing video games, watching or creating YouTube videos or vlogs (Chassiakos et al., 2016). It is common for adolescents to use more than one site to maintain a social media portfolio on social networking services such as Instagram, Snapchat, Twitter, Google+, and so on (Lenhart et al, 2015). These social media platforms allow adolescents to share information via text, picture, video, and audio (Chassiakos et al., 2016).

As media usage and exposure continues to increase among adolescents, recent studies discuss the benefits and risks of media usage. There are several benefits of media usage for adolescents, including exposure to new knowledge that facilitates learning, connecting with peers and receiving social support (Chassiakos et al., 2016). However, adolescents' media usage can also have negative impacts such as exposure to inappropriate content and contacts, engagement in risky online behavior and internet addiction, which have been associated with adolescent psychological distress, depression, and suicidal thoughts (Chassiakos et al., 2016; Khurana et al., 2014). Some adolescents may be more vulnerable to the negative consequences of media usage. For instance,

studies have identified that adolescents with low-self esteem and anxiety or have maladaptive self-regulation skills are more likely to develop internet addiction and engage in risky behaviors online (Lenhart et al., 2013; Moreno et al., 2011; Radovic et al., 2017).

Current research studies that focus on the prevention of the online risky behavior have stated that it is crucial to take a broader look at the influences on adolescents' media usage (Fikkers et al., 2017; Khurana et al., 2014; Padilla-Walker & Coyne, 2010). Bronfenbrenner's ecological system theory of child development proposed that a host of proximal and distal environmental factors influence child and adolescent development (Bronfenbrenner, 1979). Among various ecological factors, parents serve as one of the most important socialization agents in their children's lives. In regards to media usage, parents take different approaches to mediate their adolescent's media usage and vary in the extent to which they monitor their child's media usage in order to facilitate healthy use of media or to reduce the potentially negative impacts of media on their child's development. Furthermore, Bronfenbrenner suggested that adolescents and their parents have a mutual influence on each other. For example, parents practice different methods to mediate their adolescent's media usage depending on various factors such as their child's age or level of risk they perceive their adolescents are exposed to on social media (Padilla-Walker & Coyne, 2010; Padilla-Walker et al., 2012, 2018; Rosen et al., 2008; Vaala & Bleakly, 2015). More specifically, parents may employ more coercive control, such as limiting screen time, when their adolescents are young because they believe their younger adolescents may not have ability to judge the events on the internet (Padilla-

Walker & Coyne, 2010; Padilla-Walker et al., 2012; Rosen et al., 2008). Furthermore, parents are more likely to be involved in mediating adolescents' media usage when they perceive their adolescents as being at high risk of internet addiction and exposure to risk through media (Padilla-Walker & Coyne, 2010; Padilla-Walker et al., 2012; Rosen et al., 2008).

Increasing attention has focused on how parenting styles are associated with adolescents' internet addiction and risky online behavior (Chou & Lee, 2017; Dogan et al., 2015; Karaer & Akdemir, 2019; Lau & Yuen, 2013; Liau et al., 2005; Rosen et al., 2008; Valcke et al., 2007). Following Baumrind's (1971) three general parenting styles – authoritative, authoritarian, and permissive – studies have indicated that authoritative parenting style is generally associated with less risky online behaviors (Chou & Lee, 2017; Karaer & Akdemir, 2019; Rosen et al., 2008), whereas authoritarian and permissive parenting style are associated with more internet addiction and risky online behavior among adolescents (Dogan et al., 2015; Lau & Yuen, 2013; Liau et al., 2005; Valcke et al., 2007).

Beyond general parenting styles, other studies have focused on media-specific parenting practices to monitor children's media usage (Chou & Lee, 2017; Dogan et al., 2015; Karaer & Akdemir, 2019; Lau & Yuen, 2013; Leung & Lee, 2012). Media-specific parenting practices include active conversational practice, coercive monitoring, and preventive practices, varying levels of parental control and strictness, (e.g., enforcing rules on screen time), parental involvement (e.g., helping adolescents to find legitimate information on the Internet), and permission (e.g., leaving adolescents to have their own

decision on online activities). Research has showed mixed results in the association between parenting practices and internet risk of adolescents. Some findings indicated that adolescents whose parents have strict rules on media usage are less likely to have internet addiction symptoms (Karaer & Akdemir, 2019; Leung & Lee, 2012) while other research showed that adolescents with parents who employ controlling mediation on their media usage are more likely to have risky online behaviors (Chou & Lee, 2017; Dogan et al., 2015; Lau & Yuen, 2013). In support of Bronfenbrenner's belief in the mutual influence between adolescents and parent behavior, it is possible that these correlational findings may indicate that parents exert greater control on their adolescents' media usage as a means to prevent risky online behaviors from developing or in efforts to intervene after observing their teenager's risky online behaviors.

Despite the increasing research on parental influences on adolescent media usage, these two approaches – parenting styles and media-specific parenting practices – have typically been investigated in separate research studies, rather than in conjunction with one another. Therefore, it is less understood how these parenting styles may be associated with media-specific parenting practices, and how they, in conjunction with one another, influence adolescent internet addiction and risky online behavior. For example, are adolescents with authoritarian parents who engage in more coercive monitoring at greater risk to engage in risky online behaviors compared to adolescents with authoritarian parenting who do not engage in coercive monitoring? By investigating parenting styles and media-specific parenting together in the same study, we can take into account the variability in the level of media-specific parenting practices that are enacted within each

of the general parenting style categories. Therefore, the overarching goal of the present study is to examine how parenting styles are associated with adolescent internet addiction and exposure to risk through media and how these relations may be moderated by media-specific parenting practices.

Furthermore, I will also investigate how the association between parenting styles and adolescents' risky media usage may vary according to adolescent characteristics, including their age, self-esteem and depression. Depressed adolescents tend to use the internet more excessively and have a higher risk of exposure to negative impacts of media than non-depressed adolescents (Huang, 2010; Lin et al., 2016; Radovic et al., 2017; Ybarra et al., 2005). Similarly, adolescents with low self-esteem are more likely to be addicted to the internet and engage in risky online behaviors than adolescents with high self-esteem (Forest & Wood, 2012; Lenhart et al., 2013; Moreno et al., 2011; Radovic et al., 2017).

Parenting Styles and Adolescents' Risky Media Usage

In this study, three different parenting styles are measured to predict adolescents' internet addiction and risky online behavior. Baumrind (1991) identified three different models of parenting styles - Authoritative, Authoritarian, and Permissive. These parenting styles differ according to the degree to which they are characterized along two dimensions: disciplinary techniques including control/demandingness and warmth/responsiveness (Maccoby & Martin, 1983). Parents with authoritative parenting style have high demandingness and high responsiveness, whereas authoritarian parenting

styles reflect high control and low warmth. Permissive parenting styles refer to parental behavior of low control and low warmth.

Of the three parenting styles, authoritative parenting is less likely to be associated with negative media usage outcomes among adolescents. Rosen and her colleagues (2008) suggested that parents who demonstrate authoritative parenting practices engage in open communication with their adolescents and are often aware of how their adolescents spend their leisure time, including what their adolescents do online. Given that authoritative parents encourage their adolescents to be autonomous (Floros & Siomos, 2013; Lau & Yuen, 2013), studies have found that adolescents with authoritative parents often demonstrate strong self-regulation skills and engage in responsible behaviors. As such, these adolescents may be able to effectively monitor their own use of the internet, thereby reducing their risks to develop internet addiction (Chou & Lee, 2017), and be less likely to disclose personal information online (Rosen et al., 2008). Previous studies suggested that democratic parenting style, which is similar to authoritative style, is negatively related to adolescent internet addiction because parents who have a warm relationship with their adolescents are more likely to spend leisure time with their children, thus limiting adolescents' time on the internet for entertainment purposes (Dogan et al., 2015; Karaer & Akdemir, 2019).

Although some research also suggested that authoritarian parenting style is less likely to be associated with risky online behavior (Lau & Yuen, 2013; Liau et al., 2005; Valcke et al., 2007), the overwhelming majority of findings indicated that authoritarian parenting is associated with negative consequences of media usage. On the one hand, authoritarian

parents often impose strict rules to limit the amount of time that adolescents spend online, prevent disclosure of personal information online, and prevent exposure to adverse consequences of pornography and violent content (Leung & Lee, 2012; Rosen et al., 2008). However, the majority of studies have indicated that authoritarian parenting style is more likely to be associated with risky online behavior and internet addiction. Compared to adolescents with authoritative parents, adolescents with authoritarian parents have weaker self-regulation skills because they experience less opportunities for autonomy and independent decision-making (Abar et al., 2008). Adolescents with authoritarian parents who use coercive monitoring, such as having strict rules or imposing screen time limits, are more likely to display internet addiction because they are more likely to use internet excessively when they are not actively under parent's supervision (Chou & Lee, 2017; Dogan et al., 2015; Lau & Yuen, 2013; Leung & Lee, 2012).

Permissive parenting style is highly related to adolescents' excessive internet use, which may contribute to internet addiction (Karaer & Akdemir, 2019; Lau & Yuen, 2013). Similarly, Leung and Lee (2012) suggested that adolescents with low parental supervision, which is often demonstrated by permissive parents, are more likely to have internet addiction. Additionally, adolescents with permissive parents are more likely to use the internet to seek and receive social support from the online community, which puts them at risk of internet addiction and risky online behavior (Chou & Lee, 2017; Lau & Yuen, 2013).

Media-Specific Parenting Practices and Adolescents' Risky Media Usage

In this study, I examined three media-specific parenting practices: active conversational practices, coercive monitoring, and preventive practices. Active conversational practices refer to the practice of having a conversation about how to be a critical media consumer and helping adolescents decide on consuming different media content. Coercive monitoring refers to parental practices on media mediation with overprotection, strict rules, installation of software tools that block harmful media content, and limited screen times. Preventive practices refer to a prearming practice that prepares adolescents in advance. More specifically, parents engage in discussions with their adolescents about what to do in various scenarios that may happen online (Fikkers et al., 2017; Padilla-Walker & Coyne, 2010).

Active conversational practices reduce the amount of time that adolescents spend on media consumption because parents who use active conversational practices are more likely to spend time with their adolescents and are aware of their adolescents' online activities. Thus, active conversational practices significantly relate to the low rate of risky online behavior (Khurana et al., 2014; Vaala & Bleakly, 2015). Parents who engage in active conversational practices are more likely to have authoritative parenting styles (Padilla-Walker & Coyne, 2010). In other words, parents with authoritative parenting styles are more likely to spend more time putting effort into having a conversation with their adolescents about media usage. Therefore, it is possible that authoritative parenting style in conjunction with active conversational practices relate to less internet addiction and exposure to risk through media. Given that active conversational practices relate to

healthy media usage, it is possible that among adolescents with authoritarian and permissive parents, those who practice active conversational practices will display less internet addiction symptoms and risky online behavior compared to those who demonstrate low active conversational practices.

By contrast, coercive monitoring practices include having restrictions and regulation on media usage, tracking adolescent's activities online, and using a filtering system, searching history, and blocking numbers (Vaala & Bleakley, 2015; Yardi & Bruckman, 2011). Coercive monitoring reduces the time adolescents spend on media consumption, but it does not reduce risky online behavior (Khurana et al., 2014; Sasson & Mesch, 2014). Many research reported that coercive monitoring practices are the least effective methods to monitor adolescents' media usage (Law et al., 2010; Padilla-Walker & Coyne, 2010; Padilla-Walker et al, 2018; Yardi & Bruckman, 2011). Therefore it is possible that across all three parenting styles, high levels of coercive monitoring can exacerbate the risks of internet addiction and exposure to risk through media.

In regards to preventive practices, parents change the perception of media and encourage adolescents to become critical media consumers (Fikkers et al., 2017). Preventive practices are related to the lower exposure to media of adolescents and the lower rate of risky online behavior (Fikkers et al., 2017; Khurana et al., 2014). Padilla-Walker and Coyne (2010) suggested that media mediation can be effective when parents have respectful communication with their adolescents to compromise how to use media effectively and safely. Across the three parenting styles, high levels of preventive practices can reduce the exposure to risk through media.

Adolescent Characteristics that May Increase Adolescents' Risky Media Usage

The effectiveness of parenting styles and practices on minimizing negative media usage outcomes among adolescents can depend on adolescent characteristics, such as their age and psychological well-being. Age is associated with internet addiction and risky online behavior (Jelenchick et al., 2013; Lin et al., 2016; Sasson & Mesch, 2014). Older adolescents spend more time on online activities such as instant messages, blogs, and online forums than younger adolescents (Sasson & Mesch, 2014). Thus, older adolescents who are excessively exposed to media tend to engage in risky online behaviors compared to younger adolescents (Sasson & Mesch, 2014). Given that adolescence is a critical period of autonomy development, as adolescents get older, it may become challenging for parents to monitor their adolescents' media consumption. Therefore, the association between parenting styles and adolescents' risky media usage may be weaker among older adolescents than younger adolescents.

Furthermore, studies have found that adolescents with depression are more likely to use the internet excessively and have a high risk of exposure to risky online behavior (Huang, 2010; Lin et al., 2016; Ybarra et al., 2005). More specifically, when feeling more depressed, adolescents tend to use more media to change their mood by gaining social support, expressing their emotions, and connecting to online communities that strengthen their sense of belonging, or consuming entertainment content (Forest & Wood, 2012; Lenhart et al., 2013; Radovic et al., 2017; Ybarra et al., 2005). These purposes of media usage can put adolescents at risk of negative feelings (Rideout, 2012). More specifically, adolescents reported that they experienced negative feelings such as lack of confidence,

feeling worse about themselves, and becoming more depressed, especially when they cannot obtain what they want from online platforms (Rideout, 2012). Radovic and his colleagues (2017) conducted a longitudinal study to explore how depressed adolescents use media and its outcomes. The authors argued that depressed adolescents engage in risky online behaviors including sharing attention seeking posts (e.g., suggestive pictures, smoking, drinking, inappropriate clothing, sneaking out, videos of fighting) to gain social support from strangers that have negative consequences such as risky online behavior (Radovic et al., 2017). However, these risky online behaviors may lead to online social rejection (Collins & Miller, 1994; Rains, 2014). Online social rejection, in turn, may relate to lower self-esteem (Schwartz, 2010).

Self-esteem is also associated with adolescents' internet addiction and risky online behavior. Forest and Wood (2012) found that adolescents are likely to have more likes and comments for their positive posts than their negative posts on social media. However, adolescents with low self-esteem are more likely to post their negativity to seek social support. Thus, adolescents with low self-esteem feel worse when they use social media. The lower self-esteem adolescents have, the more attention-seeking adolescents want on social media. As a result, adolescents with low self-esteem tend to use social media excessively and are more likely to engage in risky online behavior (Lenhart et al., 2013; Moreno et al., 2011; Radovic et al., 2017). One study suggested that internet usage does not influence self-esteem directly. Rather, internet usage influences self-esteem via mediating variables such as loneliness, depression, or social support (Shaw & Gant,

2002). Thus, high self-esteem may reduce the risk of internet addiction and negative impacts of media among adolescents.

As past studies indicated, there is abundant evidence pointing to the vulnerability of adolescents with depression and low self-esteem to develop internet addiction and engage in risky online behavior. These adolescents are also more likely to come from families in which their parents are authoritarian or permissive (Milevsky et al., 2006). Therefore, among adolescents with parents who are authoritarian or permissive, those with high levels of depressive symptoms and low self-esteem can be at greater risk for internet addiction and risky online behaviors compared to their peers with less depressive symptoms and higher self-esteem.

Present Study: Research Questions

The overall goal of the present study is to investigate the influence of parenting on adolescent internet addiction and exposure to risk through media. Specifically, I sought to address three research questions:

1. How are parenting styles associated with adolescents' internet addiction and exposure to risk through media?
2. Is the association between parenting styles and adolescents' internet addiction and exposure to risk through media moderated by media-specific parenting practices (i.e., active conversational practices, coercive monitoring, preventive practices)?
3. Is the association between parenting styles and adolescents' internet addiction and exposure to risk through media moderated by adolescent characteristics (i.e., age, self-esteem, depression)?

Method

Participants

Participants included 315 adolescents (158 males, 157 females) in the United States. The majority (78.7%) of participants were White, 8.6% were Black, 5.1% were Hispanic, 5.4% were Asian, and 2.2% were Native American. Adolescents' ages ranged from 13 years to 18 years ($M = 15.36$, $SD = 1.52$). Regarding mother's education background, 4.5% of participants' mothers had no formal education or some formal education but no high school diploma. Thirty five percent reported having a high school diploma. Twenty four percent reported having an Associates degree or trade school, and 37% reported having a Bachelor's degree or higher degree.

Procedures

Adolescents were recruited online, using Qualtrics Sampling Services. Invitation and consent forms were sent to parents of adolescents who had Qualtrics account. By clicking "I read the consent and agree," consent was granted. Adolescents, whose parents granted consent, received the invitation to participate. Adolescents also had their own account on the Qualtrics so that their parents could not access their survey responses. Prior to participating in the survey, adolescents provided assent and received an electronic copy. If adolescents did not agree to participate, they could exit the online survey. Qualtrics provided an incentive to participants, not to parents, who were the participants in the survey. Adolescents received a gift card after participation in the survey. The survey launched April 30, 2019 and was completed May 2, 2019. The data from survey were statistically analyzed using Statistical Package for Social Sciences (SPSS) version 26.

Measures

Demographic Information

Adolescents completed a demographic questionnaire asking about their age, gender (i.e., male, female), ethnicity (i.e., American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, or Caucasian) and mother's highest level of education (i.e., no formal education, some formal education but no high school diploma, high school diploma, an Associate degree or trade school, Bachelor's degree, or graduate degree).

Parenting Measures

Mother's Parenting Style. Mother's parenting style was assessed by means of adolescents' self-report, using the Buri's Parental Authority Questionnaire (1991), comprising 30 items, with 10 items corresponding to each of the three subscales: permissive ($\alpha = .87$, e.g., "My mother does not feel that I need to obey the rules and regulations of behavior simply because someone in authority had established them."), authoritarian ($\alpha = .85$, e.g., "Whenever my mother tells me to do something, she expects me to do it immediately without asking any questions."), and authoritative ($\alpha = .87$, e.g., "My mother has always encouraged verbal give- and - take whenever I have felt that family rules and restrictions were unreasonable."). Participants responded on a 4-point Likert scale (1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree).

Parental Involvement in Adolescent's Media Usage. Parental involvement in media usage of adolescents was assessed using 10 items (Middaugh & Sorkhabi, 2015). The measure contains two subscales: parents' Active Conversational Practices in adolescent's

media usage (four items, $\alpha = .84$, e.g., “How often do your parents help you if you have trouble finding information about something online?”), and parent’s Media Risk Preventive Practice (six items, $\alpha = .94$, e.g., “Have your parents ever talked to you about what to do if someone says something mean or upsetting online?”). Adolescents responded on a 5-point Likert scale ranging from 1 (never) to 5 (always).

Parental Coercive Monitoring. Parental coercive monitoring on media usage of adolescents was assessed using 8 items ($\alpha = .80$; Middaugh & Sorkhabi, 2015; e.g., “My parents have rules about what you are allowed to do when you are online,” “My parents check my phone without warning.”). Adolescents responded yes or no.

Adolescent Outcomes

Self-Esteem. Self-esteem was measured using Rosenberg’s Self-Esteem Scale (1979) containing 10 items ($\alpha = .86$, e.g., “On the whole, I am satisfied with myself”). Adolescents reported their self-esteem on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree).

Depression. Adolescents’ depression was measured using Depression Scale (CES-D-10) from Center for Epidemiological Studies (Radloff, 1977). Depression Scale contains 10 items ($\alpha = .86$, e.g., “I felt depressed,” “My sleep was restless.”) Participants responded on 4-point Likert scale [1 = rarely or none of the times (less than 1 day per week), 2 = some or a little of the time (1-2 days per week), 3 = occasionally or a moderate amount of the time (3-4 days per week), 4 = most or all of the time (5-7 days per week)].

Internet Addiction. Internet addiction was assessed using 14 items ($\alpha = .96$; Middaugh & Sorkhabi, 2015; e.g., “How often do you find it difficult to stop using the internet when you are online?”) Based on a 5-point Likert scale ranging from 1 (never) to 5 (very often), internet addiction was used to create a latent variable representing a variable of internet addiction of adolescents.

Exposure to Risk through Media. Exposure to risk through media was assessed using 9 items ($\alpha = .93$; Middaugh & Sorkhabi, 2015; e.g., “Have you ever been contacted online by someone you did not know in a way that made you feel scared or uncomfortable?”). Adolescents responded on a 4-point Likert scale ranging from 1 (never) to 4 (frequently). Exposure to risk through media items were used to create a variable representing a variable.

Results

Correlations

Table 1 presents the correlations among study variables. Age positively correlated with both internet addiction and exposure to risk through media. Permissive and authoritarian parenting styles positively correlated with both internet addiction and exposure to risk through media, whereas authoritative parenting style positively correlated with exposure to risk through media only. All three parenting styles positively correlated with active conversational practices, whereas only authoritarian parenting style positively correlated with coercive monitoring. Authoritative parenting style positively correlated with preventive practices, whereas permissive parenting style negatively correlated with preventive practices. Permissive and authoritarian parenting styles negatively correlated with self-esteem and positively correlated with depression. Authoritative parenting style positively correlated with self-esteem and uncorrelated with depressive symptoms.

Table 1

Correlations among Study Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Age	1	.058	.031	.078	-.038	.197**	-.200**	-.088	-.012	.163**	.123*
2. Permissive	.058	1	.232**	.215**	-.225**	.312**	-.034	.123*	-.123*	.491**	.357**
3. Authoritarian	.031	.232**	1	.264**	-.124*	.262**	.165**	.194**	.039	.361**	.279**
4. Authoritative	.078	.215**	.264**	1	.221**	.030	.076	.285**	.161**	.115*	.102
5. Self-esteem	-.038	-.225**	-.124*	.221**	1	-.562**	-.041	.118*	.097	-.436**	-.447**
6. Depression	.197**	.312**	.262**	.030	-.562**	1	.042	.025	-.065	.568**	.590**
7. Coercive Monitoring	-.200**	-.034	.165**	.076	-.041	.042	1	.344**	.160**	.140*	.084
8. General Involvement	-.088	.123*	.194**	.285**	.118*	.025	.344**	1	.488**	.143*	.085
9. Preventive Practices	-.012	-.123*	.039	.161**	.097	-.065	.160**	.488**	1	.032	.118*
10. Exposure of Risk through Media	.163**	.491**	.361**	.115*	-.436**	.568**	.140*	.143*	.032	1	.687**
11. Internet Addiction	.123*	.357**	.279**	.102	-.447**	.590**	.084	.085	.118*	.687**	1

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Regression Models testing the Association between Parenting Styles and Adolescents' Risky Media Usage

To address the first research question, a series of simple linear regressions were carried out to test how each parenting style related to adolescent internet addiction and exposure to risk through media. Each model included parenting style as a predictor and internet addiction or exposure to risk through media as an outcome variable. Results indicated that permissive ($b = 9.86, SE = 3.44, p < .001$) and authoritarian ($b = 8.74, SE = 4.71, p < .001$) parenting styles predicted adolescent internet addiction. Authoritative parenting style was not predictive of adolescent internet addiction, $b = 3.43, SE = 1.89, p > .05$. Thus, adolescents who reported parents with above average levels of permissive practice or above average levels of authoritarian practices were more likely to report internet addiction while adolescents who reported parents with above average levels of authoritative practices were not likely to report Internet addiction. In regards to adolescent exposure to risk through media, results indicated that permissive ($b = 5.73, SE = 0.57, p < .001$), authoritarian ($b = 4.77, SE = .70, p < .001$), and authoritative ($b = 1.63, SE = 0.80, p < .05$) parenting styles predicted adolescent's exposure to risk through media. Thus, adolescents who reported above average levels of permissive, authoritarian, and authoritative practices were more likely to report exposure to risk through media.

The Moderating Role of Media-specific Parenting Practices in the Association between Parenting Styles and Adolescents' Risky Media Usage

To address the second research question, I tested the interaction between each parenting style (i.e., permissive, authoritarian, authoritative) and media-specific parenting practice (i.e., active conversational practices, coercive monitoring, preventive practices)

predicting internet addiction and exposure to risk through media. Each regression model included the main effects of parenting style, media-specific parenting practice, and the parenting style X media-specific parenting practice interaction term.

Internet Addiction

Active conversational practices in media usage significantly moderated the associations between each of the three parenting styles and adolescent internet addiction. Results indicated that the interaction term between permissive parenting style and active conversational practices explained a significant increase in variance in internet addiction, $b = 1.48$, $SE = .35$, $t(311) = 4.20$, $p < .01$. Thus, active conversational practices significantly moderated the relation between permissive parenting style and internet addiction. Examination of the simple slopes indicated that among adolescents who reported average [$b = 8.43$, $SE = 1.47$, $t(311) = 5.75$, $p < .001$] and high [$b = 13.85$, $SE = 1.74$, $t(311) = 7.97$, $p < .001$] levels of active conversational practices, permissive parenting positively associated with internet addiction. Among adolescents who reported low levels of active conversational practices, permissive parenting was not associated with internet addiction, $b = 3.01$, $SE = 2.15$, $t(311) = 1.40$, $p > .10$.

Similarly, active conversational practices significantly moderated the association between authoritarian parenting and internet addiction, $b = 1.60$, $SE = 0.41$, $t(311) = 3.86$, $p < .01$. The interaction term between authoritarian parenting style and active conversational practices explained a significant increase in variance in internet addiction. Examination of the simple slopes indicated that among adolescents who reported average [$b = 8.70$, $SE = 1.70$, $t(311) = 5.12$, $p < .001$] and high [$b = 14.57$, $SE = 2.31$, $t(311) =$

6.32, $p < .001$] levels of active conversational practices, authoritarian parenting positively associated with internet addiction. Among adolescents who reported low levels of active conversational practices, authoritarian parenting was not associated with internet addiction, $b = 2.83$, $SE = 2.25$, $t(311) = 1.26$, $p > .10$.

Active conversational practice was also a significant moderator of the association between authoritative parenting and internet addiction. Results indicated that the interaction term between authoritative parenting style and active conversational practices explained a significant increase in variance in internet addiction, $b = 1.34$, $SE = 0.45$, $t(311) = 3.01$, $p < .01$. Examination of the simple slopes indicated that among adolescents who reported high levels of active conversational practices, authoritative parenting was positively associated with internet addiction, $b = 8.69$, $SE = 2.75$, $t(311) = 3.16$, $p < .01$. Among adolescents who reported average [$b = 3.77$, $SE = 1.97$, $t(311) = 1.91$, $p > .05$] and low [$b = -1.15$, $SE = 2.36$, $t(311) = -0.49$, $p > .10$] levels of active conversational practices, authoritative parenting was not associated with internet addiction.

Coercive monitoring and preventive practices did not significantly moderate the associations between any of the parenting styles and adolescent internet addiction.

Exposure to Risk through Media

Active conversational practices significantly moderated the associations between adolescent exposure to risk through media and permissive and authoritarian parenting styles, but not authoritative parenting style. Results indicated that the interaction term between permissive parenting style and active conversational practices explained a significant increase in variance in exposure to risk through media, $b = 0.62$, $SE = 0.14$,

$t(311) = 4.55, p < .001$. Thus, active conversational practices significantly moderated the relation between permissive parenting style and exposure to risk through media.

Examination of the simple slopes indicated that among adolescents who reported low [$b = 2.77, SE = 0.84, t(311) = 3.31, p < .001$], average [$b = 8.43, SE = 1.47, t(311) = 5.75, p < .001$], and high [$b = 13.85, SE = 1.74, t(311) = 7.97, p < .001$] levels of active conversational practices, permissive parenting positively associated with exposure to risk through media.

Similarly, active conversational practice was also a significant moderator for the association between authoritarian parenting style and adolescent exposure to risk through media. Results indicated that interaction term between authoritarian parenting style and adolescent exposure to risk through media explained a significant increase in variance in exposure to risk through media, $b = 0.60, SE = 0.17, t(311) = 3.55, p < .001$. Examination of the simple slopes indicated that among adolescents who reported low [$b = 2.42, SE = 0.92, t(311) = 2.63, p < .01$], average [$b = 4.64, SE = 0.70, t(311) = 6.66, p < .001$], and high [$b = 6.85, SE = 0.95, t(311) = 7.24, p < .001$] levels of active conversational practices, authoritarian parenting positively associated with exposure to risk through media.

Coercive monitoring was also a moderator of the association between permissive parenting style and adolescent exposure to risk through media. Results indicated that the interaction term between permissive parenting style and coercive monitoring explained a significant increase in variance in exposure to risk through media, $b = 4.18, SE = 1.61, t(311) = 2.60, p < .01$. Examination of the simple slopes indicated that among adolescents

who reported low [$b = 4.32$, $SE = 0.80$, $t(311) = 5.41$, $p < .001$], average [$b = 5.65$, $SE = 0.56$, $t(311) = 10.02$, $p < .001$], and high [$b = 6.98$, $SE = -0.72$, $t(311) = 9.64$, $p < .001$] levels of coercive monitoring, permissive parenting style positively associated with exposure to risk through media.

Coercive monitoring did not significantly moderate the association between adolescent exposure to risk through media and authoritarian or authoritative parenting styles.

Preventive practices did not significantly moderate the associations between any of the parenting styles and adolescent exposure to risk through media.

The Moderating Role of Adolescent Characteristics in the Association between Parenting Styles and Adolescents' Risky Media Usage

To address the third research question, I tested the interaction between each parenting style (i.e., permissive, authoritarian, authoritative) and adolescent characteristic (i.e., age, self-esteem, depression) predicting internet addiction and exposure to risk through media. Each regression model included the main effects of parenting style and adolescent characteristics, and the parenting style X adolescent characteristic interaction term.

Age

The interaction term between authoritarian parenting style and age explained a significant increase in variance in internet addiction, $b = 2.65$, $SE = 1.09$, $t(311) = 2.44$, $p < .05$. Thus, age was a significant moderator in the relation between authoritarian parenting style and internet addiction. Among adolescents who were average [$b = 7.26$, $SE = 1.77$, $t(311) = 4.10$, $p < .001$] in age and older [$b = 12.56$, $SE = 2.33$, $t(311) = 5.40$, $p < .001$], authoritarian parenting style positively associated with internet addiction.

Among younger adolescents, the association between authoritarian parenting and internet addiction was not significant, $b = 1.96$, $SE = 0.18$, $t(311) = 0.61$, $p > .05$. Age did not significantly moderate the associations between the two other parenting styles (i.e., permissive, authoritative) and internet addiction. Similarly, age did not significantly moderate the associations between any of the three parenting styles and exposure to risk through media.

Depression

Depression significantly moderated the associations between permissive and authoritarian parenting styles and adolescent internet addiction. The interaction term between permissive parenting style and depression explained a significant increase in variance in internet addiction, $b = 0.49$, $SE = 0.17$, $t(311) = 2.84$, $p < .01$. Thus, depression was a significant moderator of the relationship between permissive parenting style and internet addiction, $r = .49$. Among adolescents who reported average [$b = 3.61$, $SE = 1.41$, $t(311) = 2.55$, $p < .05$] and high [$b = 7.76$, $SE = 1.55$, $t(311) = 5.01$, $p < .001$] levels of depression, permissive parenting style positively associated with internet addiction. Among adolescents who reported low levels of depression, permissive parenting style was not associated with internet addiction, $b = 1.91$, $SE = 1.91$, $t(311) = 1.09$, $p > .10$.

The interaction term between authoritarian parenting style and depression explained a significant increase in variance in internet addiction, $b = 0.50$, $SE = 0.22$, $t(311) = 2.29$, $p < .05$. Thus, depression was a significant moderator of the relation between authoritarian parenting style and internet addiction. Among adolescents who reported high levels of

depression, authoritarian parenting style positively associated with internet addiction, $b = 7.09$, $SE = 1.93$, $t(311) = 3.67$, $p < .001$. Among adolescents who reported low [$b = 1.19$, $SE = 1.96$, $t(311) = 0.60$, $p > .10$] and average [$b = 2.89$, $SE = 1.56$, $t(311) = 1.85$, $p > .05$] levels of depression, authoritarian parenting style was not associated with internet addiction.

In regards to adolescent exposure to risk through media, depression was a significant moderator of the relation between permissive parenting style and exposure to risk through media, $r = .09$. The interaction term between permissive parenting style and depression explained a significant increase in variance in the exposure to risk through media, $b = 0.28$, $SE = 0.07$, $t(311) = 3.99$, $p < .001$. Among adolescents who reported low [$b = 2.16$, $SE = 0.70$, $t(311) = 3.09$, $p < .01$], average [$b = 3.11$, $SE = 0.56$, $t(311) = 5.51$, $p < .001$], and high [$b = 5.44$, $SE = 0.62$, $t(311) = 8.80$, $p < .001$] levels of depression, permissive parenting style positively associated with exposure to risk through media.

However, depression did not significantly moderate the association between authoritative parenting style and adolescent internet addiction. Similarly, depression was not a significant moderator for the association between authoritarian and authoritative parenting styles and adolescent exposure to risk through media.

Self-Esteem

Self-esteem significantly moderated the associations between permissive and authoritarian parenting styles and adolescent internet addiction. The interaction term between permissive parenting style and self-esteem explained a significant decrease in variance in internet addiction, $b = -0.50$, $SE = 0.24$, $t(311) = -2.10$, $p < .05$. Thus, self-

esteem was a significant moderator of the relation between permissive parenting style and internet addiction. Among adolescents who reported low ($b = 9.98, SE = 1.82, t(311) = 5.50, p < .001$) and average [$b = 7.48, SE = 1.37, t(311) = 5.47, p < .001$] levels of self-esteem, permissive parenting style was positively associated with internet addiction. Among adolescents who reported high levels of self-esteem, permissive parenting style was not associated with internet addiction, $b = 3.97, SE = 2.15, t(311) = 1.84, p > .05$.

Self-esteem was also a significant moderator of the relation between authoritarian parenting style and internet addiction, $b = -0.69, SE = 0.27, t(311) = -2.57, p < .05$. The interaction term between authoritarian parenting style and self-esteem explained a significant decrease in variance in internet addiction. Examination of the simple slopes indicated that among adolescents who reported low [$b = 10.74, SE = 2.08, t(311) = 5.16, p < .001$] and average [$b = 7.31, SE = 1.54, t(311) = 4.76, p < .001$] levels of self-esteem, authoritarian parenting style was positively related to internet addiction. Among adolescents who reported high self-esteem, authoritarian parenting style was not associated with internet addiction, $b = 2.51, SE = 2.36, t(311) = 1.06, p > .10$. Similarly, self-esteem did not significantly moderate the association between authoritative parenting style and internet addiction.

In regards to adolescent exposure to risk through media, self-esteem was a significant moderator for the association between permissive and authoritative parenting styles and adolescent exposure to risk through media. The interaction term between permissive parenting style and self-esteem explained a significant decrease in variance in the exposure to risk through media, $b = -0.36, SE = 0.09, t(311) = -3.92, p < .001$. Thus, self-

esteem was a significant moderator of the relationship between permissive parenting style and exposure to risk through media. Examination of the simple slopes indicated that among adolescents who reported low [$b = 6.66, SE = 0.71, t(311) = 9.40, p < .001$], average [$b = 4.84, SE = 0.53, t(311) = 9.07, p < .001$], and high [$b = 2.28, SE = 0.84, t(311) = 2.72, p < .01$] levels of self-esteem, permissive parenting style was positively associated with exposure to risk through media.

The interaction term between authoritative parenting style and self-esteem explained a significant decrease in variance in the exposure to risk through media, $b = -0.30, SE = 0.12, t(311) = -2.45, p < .05$. Thus, self-esteem was a significant moderator of the relationship between authoritative parenting style and exposure to risk through media. Examination of the simple slopes indicated that adolescents who reported low [$b = 4.60, SE = .92, t(311) = 4.98, p < .001$] and average [$b = 3.19, SE = 0.71, t(311) = 4.34, p < .001$] levels of self-esteem, authoritative parenting style positively associated with exposure to risk through media. Among adolescents who reported high self-esteem, authoritative parenting was not associated with exposure to risk through media, $b = 0.99, SE = 1.13, t(311) = 0.88, p > .10$. Similarly, self-esteem did not significantly moderate the associations between authoritarian parenting style and exposure to risk through media.

Discussion

Overall, the results indicated that parenting styles, media-specific parenting practices, and adolescents' characteristics are related to adolescent internet addiction and the exposure to risk through media. First, our findings suggest that permissive and authoritarian parenting styles correlated positively with both the exposure to risk through media and internet addiction. Contrary to past research (Chou & Lee, 2017; Rosen et al., 2008), the results of the present study suggest that the authoritative parenting style is also correlated with exposure to risk through media. Although the parenting styles were associated with some negative consequences of adolescent media usage, the strength of these associations varied according to media-specific parenting practices and adolescent characteristics. For example, across all three parenting styles, higher levels of active conversational practices increased adolescents' risk of internet addiction than lower levels of active conversational practices. Similarly, adolescent exposure to risk through media was highest among authoritarian and permissive parents who engaged in high levels of active conversational practices and among permissive parents who used high levels of coercive monitoring. Thus, it is necessary to consider the interaction between parenting styles and media-specific parenting practices when it comes to adolescents' internet addiction and exposure to risk through media.

I found that media-specific parenting practices moderated the associations between parenting styles and adolescent internet addiction and risk exposure. Despite prior findings that active conversational practices are related to less risk (Khurana et al., 2014; Vaala & Bleakly, 2015), I found that at high levels of active conversational practices,

permissive, authoritarian and authoritative styles were associated with internet addiction. Similarly, among adolescents with permissive and authoritarian parents, high active conversational practices were also related to more exposure to risk through media. One explanation of this finding can be that adolescents are encouraged to use media more when their parents take active conversational practices. Another explanation for this finding can be that parents are more likely to practice active conversational practices when their adolescents are already addicted to the internet. That is, parents may be engaging in more active conversational practices than usual as a response to their child's internet addiction. This provides support for Bronfenbrenner's theory that parents and adolescents exert mutual influence on each other. Some parents may take preventative measures to prevent internet addiction from developing, whereas other parents may intervene when their adolescents already have internet addiction symptoms.

Similarly, among adolescents with permissive and authoritarian parents, high active conversational practices were also related to more exposure to risk through media. However, active conversational practices did not moderate the association between exposure to risk through media and authoritative parenting style. Even though authoritative parenting style is related to exposure to risk through media, active conversational practices did not increase adolescents' exposure to risk through media, as it did for adolescents with authoritarian and permissive parents. One explanation for these findings is that active conversational practices are consistent with authoritative parenting that often includes parental involvement and open communication between parents and children (Floros & Siomos, 2013; Lau & Yuen, 2013; Rosen et al., 2008). Authoritative

parents may discuss with their children the potential risks associated with media usage, thus preventing adolescents from engaging in such online behaviors.

Coercive monitoring and preventive practice did not affect internet addiction and exposure to risk through media as much as active conversational practices. The findings of the present study indicate that coercive monitoring only moderated the association between permissive parenting style and adolescent exposure to risk through media. This finding can be explained as adolescents with permissive parents perceive parents' coercive monitoring as a solicitation. Permissive parents are likely to leave adolescents to decide what they want to do (Maccoby & Martin, 1983). Therefore, adolescents who typically experience permissive parenting and are not used to their parent being actively vested in their decisions may feel animosity when their permissive parents decide to regulate their online activities. Thus, adolescents may become more involved in risky online behavior. Another explanation of this finding can be that permissive parents attempt to control their adolescent's media usage after witnessing their adolescent's risky online behavior. When parents have not established a mutual, reciprocal relationship with their adolescent, permissive parents may resort to coercive monitoring to compel the adolescent to heed their directive than active conversational practices, which adolescents may ignore.

In addition to media-specific parenting practices, adolescents' characteristics significantly moderated the association between parenting styles and adolescent internet addiction and exposure to risk through media. First, age moderated the association between authoritarian parenting style and adolescent internet addiction, such that

authoritarian parenting was associated with greater internet addiction among older, but not younger, adolescents. One explanation for this finding might be that adolescents with authoritarian parents would receive more surveillance, as our results indicated that the authoritarian parenting style significantly correlated with coercive monitoring. Younger adolescents may not have established their autonomy yet and thus, may not have other options but to follow their parents' demands. Older adolescents, however, may have more opportunities to use the internet without parental surveillance. Older adolescents would use the internet excessively in their parents' absence, as parents use mediation practices less when their adolescents get older (Padilla-Walker & Coyne, 2010; Padilla-Walker et al., 2012).

The findings of the present study indicated that self-esteem and depression also moderated the association between parenting styles and adolescent internet addiction and exposure to risk through media. First, permissive and authoritarian parenting styles associated with internet addiction among adolescents with high, but not lower, levels of depression. As expected and as found in other studies (Huang, 2010; Lin et al., 2016; Ybarra et al., 2005), adolescents with depression are already at risk for internet addiction, and permissive and authoritarian parenting styles can exacerbate the risks for internet addiction even further for those who have high levels of depression. Depressed adolescents with authoritarian and permissive parents may use the internet more to seek social support because they do not have a warm relationship with their parents.

Similarly, results indicated that permissive parenting associated with exposure to risk through media among adolescents with high, but not low levels of depression.

Interestingly, this pattern was not evident among adolescents with authoritarian parents. While authoritarian parents control their adolescent's media usage, permissive parents are less likely to monitor their adolescent's media usage (Chou & Lee, 2017; Dogan et al., 2015; Lau & Yuen, 2013; Leung & Lee, 2012). Thus, adolescents who experience high levels of depression and have permissive parents may be engaged in more risky online behavior, as they spend more time on the internet compared to their peers who have lower levels of depression.

As found in other studies on adolescent media usage and psychological well-being (Huang, 2010; Lenhart et al., 2013; Lin et al., 2016; Moreno et al., 2011; Radovic et al., 2017; Ybarra et al., 2005), self-esteem is an influential factor in internet addiction and exposure to risk through media. The general pattern of findings suggested that adolescents' high self-esteem is a protective factor for internet addiction and exposure to risk through media, across the three parenting styles. In other words, adolescents with high self-esteem displayed less internet addiction and exposure to risk through the media, regardless of their parent's parenting styles compared to counterparts with low self-esteem. Thus, this finding suggests that self-esteem can be a more influential protective factor that minimize adolescents' risky media use than parental factors, such as parenting styles and media-specific parenting practices.

Adolescent internet addiction and exposure to risk through media are influenced by many factors. The findings suggest that parenting styles, media-specific parenting practices, and adolescents' characteristics have different interactive effects on adolescents' internet addiction and the exposure to risk through media, thus no single

factor is the best predictor of adolescent internet addiction and exposure to risk through media. Instead, it is necessary to understand how parents and adolescents' relationships affect parents' media-specific practices and adolescents' psychological well-being. As the results indicated, both adolescents' psychological well-being and parenting practices are influential factors for adolescent internet addiction and media exposure risk. This does not mean that we can weigh less the parenting styles when it comes to adolescent internet addiction and exposure to risk through media because self-esteem and depression were closely related to parenting styles. Thus, the present study highlights the importance of the relationship between parents and adolescents that significantly related to media-specific parenting practices and adolescents' psychological well-being which predicted adolescents' internet addiction and exposure to risk through media.

Limitations

There are two limitations to the present study. First, the findings do not determine the direction of the relationship between parenting and adolescent internet addiction and exposure to risk through media. Second, results were based on self-reported data, completed only by adolescents. Thus, parents' perspectives have not been considered in the present study. Future studies should address the directions among variables with a longitudinal study, so causal mechanisms can be examined. Also, it would be advantageous if future studies collect data from both parents and adolescents.

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