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RESEARCH PAPER

Cyberbullying Victimization through Social Networking Sites and Adjustment Difficulties: The Role of Parental Mediation

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Abstract

While adolescents have embraced a variety of online tools in recent years, little attention has been devoted to examining cyberbullying through specific tools. Addressing this gap in the literature, the present study examines the moderating effect of parental mediation strategies (i.e., restrictive, coviewing, instructive) on the associations between cyberbullying victimization and adjustment difficulties (i.e., depression, anxiety) among 567 U.S. (52% female) adolescents in the eighth grade (age ranging from 13-15 years). I employed a longitudinal design, with assessments in the spring of seventh (Time 1; T1) grade and the spring of eighth grade (Time 2; T2). The findings revealed that T1 cyberbullying victimization was positively related to restrictive mediation and to T2 depression and anxiety. In contrast, coviewing mediation and instructive mediation were each negatively associated with cyberbullying victimization and T2 depression and anxiety. High levels of instructive mediation and low levels of restrictive mediation made the associations between T1 cyberbullying victimization and T2 depression more negative, while the reverse pattern was found for low levels of instructive mediation and high levels of restrictive mediation. Results of the study underscore the importance of parental involvement in adolescents' social networking site use.

Keywords: Cyberbullying, Parental Mediation, Depression, Anxiety, Loneliness, Adolescence.

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1 Introduction

Electronic technologies have become an important part of our society. These technologies add many conveniences to our daily lives, such as access to a wealth of information at our fingertips and the ability to communicate instantaneously with anyone. Adolescents have fully embraced electronic technologies, and many adolescents do not remember a time when such technologies were not an integral part of society. Furthermore, while adolescents use electronic technologies for a great variety of reasons, online social networking is particularly prevalent (Madden et al., 2013). The most recent statistics on adolescents' social networking use indicate that about 71% of American adolescents between the ages of 13

and 17 use social media, making it one of the most popular online tools for this population (Lenhart, 2015).

Adolescents have grown up in a digitally connected world, enjoying many of the opportunities associated with electronic technology use. Despite such opportunities, adolescents are also at risk for experiencing negative consequences related to their electronic technology use (Rosen, Whaling, Carrier, Cheever, & Rokkum, 2013). Although some research attention has explored the opportunities afforded by electronic technology use, much more research has focused on the negative consequences, which has increased concern among researchers, parents, and educators about adolescent technology saturation. Consequently, attention has been devoted to

understanding which strategies might help reduce adolescents' exposure to online risks and the associated negative consequences. Parental supervision is one factor that has received attention in both adolescents' online and offline lives. Research indicates that when adolescents' parents supervise electronic technology use, adolescents are at a decreased risk of experiencing cyberbullying and being exposed to unwanted pornographic content (Lwin, Stanaland, & Miyazaki, 2008; Mesch, 2009).

Parental mediation is a component of parental supervision, and it has been found to reduce the adjustment difficulties linked to adolescents' cyberbullying victimization. These findings are important, because cybervictims are at an increased risk for an assortment of adjustment problems, such as depression, anxiety, loneliness, and suicidal ideation (Gómez-Guadix, Orue, Smith, & Calvete, 2013; Landstedt & Persson, 2014; Olenik-Shemesh, Heiman, & Eden, 2012). Despite such findings, researchers have devoted little attention to parental mediation and its role in mitigating the adjustment difficulties associated with cyberbullying victimization. The single study on this topic concluded that parental mediation buffers against cybervictims' depression and anxiety (Wright, 2015). However, this study focused on a general type of parental mediation, and did not address how various strategies might affect the association between cyberbullying victimization and adjustment difficulties. Furthermore, previous research has not focused on parental mediation strategies that are unique to a specific online tool, such as social networking sites (SNS). Such a focus might be particularly important because many adolescents frequently use these sites and are at risk for experiencing negative behaviors through these sites as well as the related psychological symptoms. To this end, the aim of the present study is to examine how different parental mediation strategies for social networking sites (SNS; i.e., coviewing, restrictive, instructive) mitigate the associations between adolescents' cyberbullying victimization via SNS and adjustment difficulties (i.e., depression, anxiety). This research employed a longitudinal research design, investigating these relationships over one year, from the fall of seventh grade to the fall of eighth grade.

2 Cyberbullying Victimization and Adjustment Difficulties

In light of adolescents' increasing use of electronic technologies, researchers, parents, educators, and the general public have become increasingly concerned with adolescents' exposure to online risks, such as cyberbullying. These concerns have further increased pursuant to various high profile cases covered in the media in which cybervictims committed suicide. Cyberbullying is typically conceptualized as an

extension of traditional face-to-face bullying (Smith et al., 2008). These behaviors are carried out via electronic technologies, including instant messaging tools, SNS, gaming consoles, text messages and cell phones, email, and websites. Researchers usually conceptualize cyberbullying as involving intentionally hostile behaviors that involve tormenting, threatening, and/or harassing a victim or group of victims as well as adolescents' experience of these negative behaviors via electronic technologies and other online tools (Dooley, Pyzalski, & Cross, 2009; Grigg, 2010). The concern with cyberbullying is warranted, since victimization by these behaviors is related to depression, anxiety, suicidal ideation, suicidal attempts, poor academic performance, increased alcohol and drug use, and loneliness (Bauman, Toomey, & Walker, 2013; Campbell, Spears, Slee, Butler, & Kift, 2012; Huang & Choi, 2010; Kowalski & Limber, 2013; Mitchell, Ybarra, & Finkelhor, 2007; Wright, 2016).

Although there have been many advances in the cyberbullying literature, research has not substantially addressed adolescents' experience of cyberbullying through different electronic technologies. The available studies related to this topic usually ask adolescents to indicate where they experienced and/or perpetrated cyberbullying (Dooley et al., 2009; Grigg, 2010; Smith et al., 2008). There are a few studies that further investigate cyberbullying via SNS. In a review of this literature, Hamm et al. (2015) revealed that cyberbullying through SNS was related to depression, anxiety, self-harm, and suicidality, with conflicting findings regarding suicidal ideation and anxiety. They also identified the most common reason for cyberbullying—relationship issues—and victims often reported that they were not confident in their ability to deal with these behaviors. Thus, cyberbullying via SNS also relates to adjustment difficulties. As a result of these associations, some researchers have focused their attention on the factors which might mitigate cybervictims' adjustment difficulties.

2.1 Parental Mediation of Electronic Technology Use

One factor that has received considerable attention is parental mediation, due to its role in reducing the adjustment difficulties associated with cyberbullying victimization (Livingstone & Helsper, 2008; Van Den Eijnden, Meerkerk, Vermulst, Spijkerman, & Engels, 2010). Researchers define parental mediation as parents' use of various preventive strategies to manage their children's relationship with and use of electronic technologies (Livingstone & Helsper, 2008). Parents who set rules regarding their children's use of electronic technologies employ time limits on their children's use and/or discuss appropriate use of such technologies (Dehue, Bolman, & Völlink, 2008). Such

parents may also seek to maintain an open dialogue with their children regarding the content that is viewed on the internet and the use of other online tools. However, none of the parents in Dehue et al.'s study set rules involving their children's involvement in negative online behaviors, like cyberbullying. Other research has specifically focused on parental mediation as a strategy to prevent cyberbullying involvement. Mesch (2009) found that parents' monitoring strategies and rules regarding appropriate and inappropriate websites reduced their children's risk of cyberbullying victimization. Furthermore, adolescents whose parents utilized monitoring software and set rules concerning time limits on electronic technologies use shared less personal information online (Navarro, Serna, Martinez, & Ruiz-Oliva, 2013). When adolescents shared less personal information online, they were at a decreased risk of experiencing cyberbullying. Although much of this previous research is concerned with parental mediation as a strategy used to reduce adolescents' risk of cyberbullying victimization, few studies have focused on whether such mediation protects against the adjustment difficulties associated with experiencing cyberbullying.

Wright (2015) conducted a study to investigate the proposal that parental mediation can buffer against the adjustment difficulties related to cyberbullying victimization. Her findings revealed that the associations between cyberbullying victimization and depression and/or anxiety were weaker when adolescents reported that their parents engaged in mediational strategies regarding their technology use. While this is a key finding in this research, Wright focused on a general measure of parental mediation, without focusing on the specific mediational strategies that parents might use to monitor their children's electronic technology use. Focusing on various parental mediation strategies is important as such strategies might have differential effects on cyberbullying victimization and the associated adjustment difficulties. Arrizabalaga-Crespo, Aierbe-Barandiaran, and Medrano-Samaniego (2010) conceptualized three parental mediation strategies: restrictive, coviewing, and instructive. Restrictive mediation involves parents preventing their children's access to specific online content. Coviewing mediation is defined as parents and children accessing online content together. However, this does not imply that parents are discussing such content with their children. Instructive mediation refers to parents and children actively discussing online content together. Although Arrizabalaga-Crespo et al. did not focus on how these parental mediation strategies might relate to adolescents' cyberbullying victimization, they examined how parents used these strategies based on their children's diagnosis of ADHD. They found that adolescents with ADHD tended to have parents who used restrictive and instructive parental mediation.

Another important focus of the present research is whether parents might use parental mediation strategies that are specific to different electronic technologies. In particular, adolescents frequently use SNS, and there are specific risks associated with these sites, including cyberbullying, identity theft, computer viruses, phishing, and impersonation (Smith et al., 2008). Consequently, parents might vary their mediation strategies based on the type of online tool their children are using. Thus far, no research has focused on this topic. However, such research should ideally not only specify parental mediation strategies specific to SNS, but also investigate whether such strategies might buffer against the adjustment difficulties associated with experiencing cyberbullying through SNS.

2.2 The Present Study

This study will add to the existing literature by investigating cyberbullying victimization through a specific technology—specifically SNS—and the role of parents' mediation of their children's technology use via such technology. Most studies on this topic have focused on adolescents' general use of electronic technologies versus examining a specific type of technology. Research such as mine is needed because parents' advice regarding different electronic technologies might vary, as might adolescents' adjustment difficulties associated with experiencing negative behaviors through different technologies. The aim of the present research is to investigate the buffering effect of parental mediation strategies (i.e., restrictive, coviewing, instructive) specific to SNS on the association between cyberbullying victimization through SNS and adjustment difficulties (i.e., depression, anxiety) among adolescents, while controlling for traditional face-to-face bullying victimization. My study used a longitudinal research design, investigating these associations over one year from the spring of seventh grade (Time 1; T1) to the spring of eighth grade (Time 2; T2). Adolescents boast some of the highest rates of SNS use and also make up one of the most vulnerable populations for experiencing cyberbullying (Ševčíková & Šmahel, 2009). The following research questions guided my research:

RQ1: What is the relationship between T1 parental mediation strategies (restrictive, coviewing, instructive) for SNS and T1 cyberbullying victimization via SNS?

H1: T1 coviewing and instructive mediation for SNS will relate negatively to T1 cyberbullying victimization via SNS.

H2: T1 restrictive mediation for SNS will relate positively to T1 cyberbullying victimization via SNS.

RQ2: What is the relationship between T1 cybervictimization and T2 adjustment difficulties (depression, anxiety)?

H3: T1 cybervictimization will relate positively to T2 depression and anxiety.

RQ3: What role do T1 parental mediation strategies play in the relationships between T1 cyberbullying victimization via SNS and T2 adjustment difficulties (depression, anxiety) while accounting for T1 traditional face-to-face bullying victimization?

H4: The relationship between T1 cyberbullying victimization via SNS and T2 depression and anxiety will be more negative at higher levels of T1 coviewing and instructive mediation for SNS, while this association will be more positive at lower levels of these T1 parental mediation strategies.

H5: The relationship between T1 cyberbullying victimization via SNS and T2 depression and anxiety will be more positive at higher levels of restrictive mediation strategies, while this association will be more negative at lower levels of T1 restrictive mediation.

3 Methods

3.1 Participants

Participants were 568 (52% female; M age = 13.48; age range 13-15 years) eighth graders from the midwestern United States. Schools were located in middle-class neighborhoods. A priori power analysis for structural equation models, with an anticipated effect size of .30 (medium), a desired statistical power level of .80, and five latent variables revealed that the minimum sample size of 150 was needed to detect an effect. The sample size of 568 exceeded this expectation. The majority of participants identified as white (73%), Latino/a (20%), Black/African American (5%), Asian (1%), and biracial (1%). About 31% of all students qualified for free or reduced-cost lunch at the schools. The participants and their parents did not report on income data.

3.2 Procedures

For this study, I created list of over 150 public schools in the suburbs of a large midwestern city and randomly chose ten middle schools from this list. I sent school principals an email, which described the purpose of the study and what students would be expected to do if they were to participate. Of the ten middle schools, six school principals responded, expressing a desire for their students to participate in the study. I then met with the school principals and teachers. In this meeting, I discussed the project, what the participants would be expected to do, and the long-term data collection

efforts. Next, I arranged for classroom announcements to seventh grade classes describing how important it was for the students to participate in the study, what they would be expected to do, confidentiality, and how they could participate in the study. I distributed 713 parental permission slips, which described the nature and purpose of the study. Out of the 713 permission slips, 578 were returned with permission. The rest were either returned without permission ($n = 15$) or never returned.

I collected the first wave of data during the spring of seventh grade. Eleven students were absent during data collection. Of those, 10 were able to complete the questionnaires on the make-up day. All the students gave their consent to participate in the study before completing the questionnaires. The questionnaires included demographic information (i.e., age, gender, ethnicity), self-reported traditional face-to-face victimization, self-reported cyberbullying victimization, parental mediation of SNS use, and levels of depression and anxiety. The first wave of data collection included 577 adolescents.

I collected the second wave of data during the spring of eighth grade. I sent a letter home to parents before data collection, reminding them of their child's participation in the study during seventh grade. If parents did not want their child to participate, they were asked to write their child's name on the letter and return it with their child to school. No parents declined their child's continued participation in the study. Ten students had moved away, making it impossible to include them in the second wave of data collection. This reduced the sample size to 568. The students completed questionnaires on depression and anxiety only.

3.3 Measures

3.3.1 Traditional Face-to-Face Victimization

This questionnaire assessed how often the participants were victimized by traditional face-to-face bullying (Wright, Li, & Shi, 2014). Participants were asked to rate the twelve items on a scale of 1 (*not at all*) to 5 (*all of the time*). Participants were asked to answer the items according to how often they experienced these behaviors within the current school year. Some items included: "Someone called me insulting names" and "Someone spread rumors about me to get others not to like me." Cronbach's alpha was .91 for traditional face-to-face victimization.

3.3.2 Cyberbullying Victimization through SNS

The study participants completed this questionnaire addressing how often they experienced victimization

online or via text messages (Wright, 2014). There were nine items included on this questionnaire, which were rated on a scale of 1 (*not at all*) to 5 (*all of the time*). The questionnaire asked the participants to rate the items according to their experience during the current school year. Some items included: “Someone spread rumors about me online or through text messages” and “Someone posted or sent nasty and/or humiliating information to me online or through text messages.” Cronbach’s alpha was .92.

3.3.3 Parental Mediation of SNS Use

This questionnaire assessed how often the participants perceived their parents as being involved in their SNS usage (Arrizabalaga-Crespo et al., 2010). The original questionnaire created by Arrizabalaga-Crespo et al. was written for general electronic technology use. For this study, I revised it to indicate that the parental mediation concerned SNS specifically. The nine items were rated on a scale of 1 (*completely disagree*) to 5 (*completely agree*). There were three subscales: restrictive (4 items; sample item: “My parents impose a time limit on the amount of time that I surf SNS.”), coviewing (3 items; sample item: “My parents surf SNS with me.”), and instructive (2 items; sample item: “My parents show me how to use SNS and warn me about the risks.”). Cronbach’s alpha was .88 for restrictive, .83 for coviewing, and .80 for instructive.

3.3.4 Depression

To assess the participants’ depressive symptoms, I used the Center for Epidemiological Studies Depression Scale (Radloff, 1977). The twenty items were rated on a scale of 0 (*rarely or none of the time*) to 3 (*most or all of the time*). Some examples include: “I was bothered by things that usually don’t bother me” and “I did not feel like eating, my appetite was poor.” Cronbach’s alpha was .90 for depression at Time 1 and Time 2.

3.3.5 Anxiety

I used the Multidimensional Anxiety Scale for Children to assess the participants’ anxiety symptoms (March, Parker, Sullivan, Stallings, & Conners, 1997). There were thirty-nine items included on this questionnaire, which were rated on a scale of 0 (*never true about me*) to 3 (*often true about me*). A sample item included: “I get scared when my parents go away.” Cronbach’s alpha was .88 for anxiety at Time 1 and .89 at Time 2.

3.4 Analytic Plan

Confirmatory factor analysis was performed to analyze the measurement model using *Mplus 7.3*. The model demonstrated adequate fit indices, $\chi^2 = 636.96$, $df = 671$, $p = .82$, $CFI = .99$, $TLI = .98$, $RMSEA = .04$, $SRMR$

$= .04$. The standardized factor loadings had good magnitudes with significant factor loadings ($ps < .001$). These items served as indicators for the latent variables in the structural regression model. I used the structural regression model to investigate the research questions. I specified paths from Time 1 (T1) cyberbullying victimization via SNS to T1 restrictive, coviewing, and instructive parental mediation strategies for SNS. In addition, I added paths from T1 parental mediation strategies for SNS to Time 2 (T2) depression and anxiety. I included T1 parental mediation strategies for SNS as moderators in the relationships between cyberbullying victimization via SNS and T2 depression and anxiety. I included traditional face-to-face victimization as a covariate in the model by allowing it to predict T1 cyberbullying victimization via SNS. Furthermore, I also included T1 depression and anxiety as covariates by specifying paths to T2 depression and anxiety. Significant interactions were probed with the Interaction program, which provides the significance of the unstandardized simple regression slopes. It also displays graphical illustration of the simple slopes at +1 SD, the mean, and -1 SD.

4 Results

I conducted correlations among all variables included in the study (see Table 1). T1 cyberbullying victimization through SNS was positively related to T1 traditional face-to-face victimization, T1 restrictive mediation for SNS, T1 depression and anxiety, and T2 depression and anxiety. On the other hand, T1 cyberbullying victimization through SNS was negatively associated with T1 coviewing and instructive mediation for SNS. T1 traditional face-to-face victimization was positively related to T1 and T2 depression and anxiety. In addition, T1 traditional face-to-face victimization was negatively associated with T1 instructive mediation for SNS. T1 restrictive mediation for SNS was positively related to T1 depression and T2 depression. It was also negatively associated with T1 instructive mediation for SNS. T1 coviewing mediation for SNS was positively related to T1 instructive mediation for SNS, while it was negatively associated with T1 depression and T2 depression and anxiety. T1 instructive mediation for SNS was negatively related to T1 and T2 depression and anxiety. T1 depression was positively associated with T1 anxiety and T2 depression and anxiety. T1 anxiety was positively related to T2 depression and anxiety. In addition, T2 depression was positively associated with T2 anxiety.

The structural regression model fit was good, $\chi^2 = 813.56$, $df = 769$, $p = .12$, $CFI = .97$, $TLI = .95$, $RMSEA = .04$, $SRMR = .04$ (see Figure 1). T1 cyberbullying victimization through SNS was positively related to T1 restrictive mediation for SNS

($\beta = 0.20, p < .05$) and T2 depression ($\beta = 0.31, p < .001$) and anxiety ($\beta = 0.22, p < .05$). However, it was negatively associated with T1 coviewing for SNS ($\beta = -0.25, p < .01$) and instructive mediation for SNS ($\beta = -0.36, p < .001$). T1 restrictive mediation for SNS was positively related to T2 depression ($\beta = 0.18, p < .05$), while T1 coviewing and instructive mediation for SNS were negatively associated with T2 depression (coviewing: $\beta = -0.20, p < .05$; instructive: $\beta = -0.26, p < .01$). T1 instructive and restrictive mediation for SNS

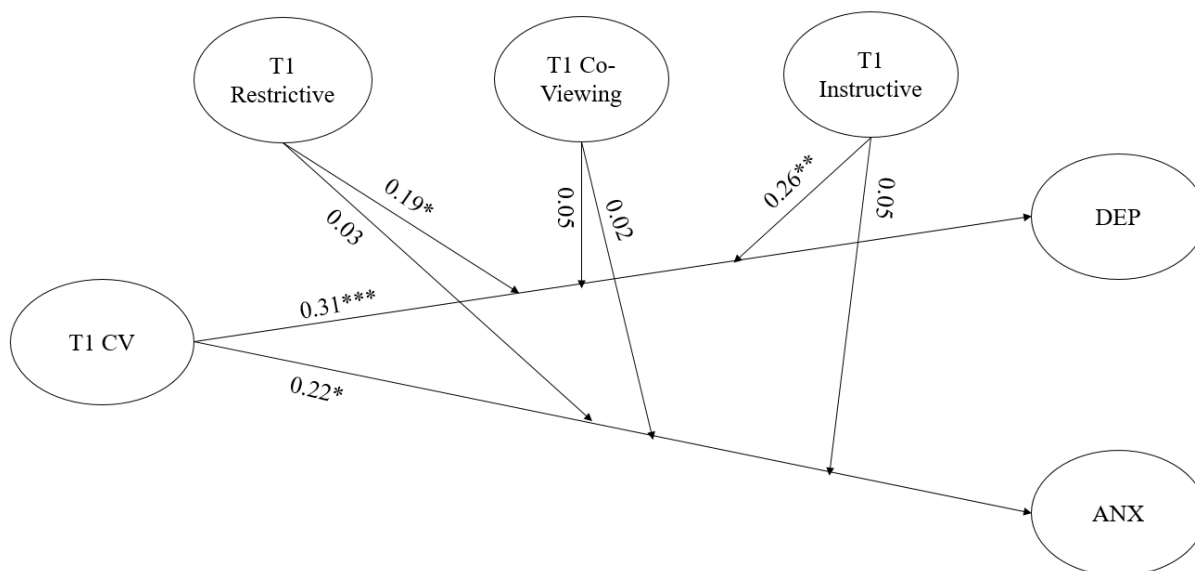
moderated the relationship between T1 cyberbullying victimization through SNS and T2 depression. More specifically, these associations were more negative at higher levels of instructive mediation for SNS and lower levels of restrictive mediation for SNS. On the other hand, T1 cyberbullying victimization through SNS and T2 depression were more positive at lower levels of instructive mediation for SNS and higher levels of restrictive mediation for SNS.

Table 1. Correlation among All Variables in the Study

	1	2	3	4	5	6	7	8	9
1. T1 CV	---								
2. T1 F2F Vic	.49***	---							
3. T1 Restrictive	.19*	.06	---						
4. T1 Coviewing	-.23*	.11	.05	---					
5. T1 Instructive	-.36***	-.18*	-.19*	.27***	---				
6. T1 Depression	.33***	.37***	.24**	-.21*	-.34***	---			
7. T1 Anxiety	.26**	.31***	.16	-.13	-.18*	.40***	---		
8. T2 Depression	.40***	.43***	.24**	-.26**	-.36***	.63***	.43***	---	
9. T2 Anxiety	.21*	.21*	.13	-.19*	-.19*	.40***	.58***	.36***	---

Note. T1 = Time 1; T2 = Time 2; CV = cyberbullying victimization via SNS; F2F = face-to-face; Vic = victimization.

* $p < .05$. ** $p < .01$. *** $p < .001$.



* $p < .05$. ** $p < .01$. *** $p < .001$

To facilitate reading, T1 traditional face-to-face victimization as a covariate was not included nor were the moderation effects. T1 traditional face-to-face victimization was positively related to T1 cyberbullying victimization ($\beta = .32, p < .001$).

Figure 1. Structural regression model for the associations among T1 cyberbullying victimization via SNS, T1 parental mediation strategies for SNS, T2 anxiety, and T2 depression.

5 Discussion

The aim of this study was to investigate how parental mediation strategies for SNS might buffer against the depression and anxiety typically associated with cyberbullying victimization via SNS. Results from the present study, which are supported by the literature, indicated that Time 1 (T1) cyberbullying victimization through SNS was associated with Time 2 (T2) depression and anxiety, providing support for Hypothesis 3 (Bauman et al., 2013; Campbell et al., 2012; Huang & Choi, 2010; Kowalski & Limber, 2013; Mesch, 2009; Mitchell et al., 2007; Navarro et al., 2013; Wright, 2015). Thus far, no research has been conducted on the linkage between different parental mediation strategies for SNS (i.e., restrictive, coviewing, instructive) and cyberbullying victimization through SNS, specifically addressing Hypotheses 1 and 2. Therefore, it is difficult to conclude whether the findings from the present study are consistent with the literature. The study's results suggest that there are differential associations of parental mediation strategies for SNS with cyberbullying victimization through SNS. Restrictive mediation for SNS was found to be a risk factor for cyberbullying victimization through SNS (Hypothesis 2), while coviewing and instructive mediation for SNS protected against these experiences (Hypothesis 1). Therefore, coviewing and instructive mediation strategies for SNS might serve the same function as social support, making it possible for adolescents to share their experiences of cyberbullying with their parents (Livingstone, Haddon, Görzig, & Ólafsson, 2011). Coviewing and instructive mediation for SNS involve interactions among adolescents and their parents, potentially leading parents to discuss effective strategies to eliminate or reduce adolescents' exposure to risks via SNS (Wright, 2015). During this communication, adolescents might have the opportunity to seek support from their parents regarding cyberbullying exposure or potential exposure through SNS (Nikken & de Haan, 2015; Talves & Kalmus, 2015).

Restrictive mediation for SNS involves parents who might enforce strict rules regarding SNS use. These parents might enact such rules without receiving input from their children, reducing the possibility that these adolescents will discuss instances of unwanted or uncomfortable experiences through SNS. Such a proposal is supported by the literature as parents who use restrictive mediation are not likely to discuss solutions to unwanted or problematic experiences (Mesch, 2009). Furthermore, restrictive mediation might function similarly to the overprotective parenting style. In this parenting style, parent-child interactions do not usually involve parents allowing their children to develop the necessary problem-solving skills and social skills needed to navigate peer

conflicts (Clarke, Cooper, & Creswell, 2013; Lereya, Samara, & Wolke, 2013; Ungar, 2009). Using electronic technologies increases adolescents' risk of being exposed to unwanted and/or problematic online experiences. Therefore, it is not likely that adolescents can avoid all the possible risks associated with their SNS use, increasing their risk of cyberbullying victimization.

Coviewing mediation for SNS does not usually involve parent-child discussion of online content and risks. However, parents and their children use SNS together. Such an opportunity allows parents and their children to discuss appropriate online content and strategies for dealing with such content (Arrizabalaga-Crespo et al., 2010). Although coviewing mediation for SNS does not fully reflect how parents and their children should interact regarding SNS use, it does involve minimal intervention, which is effective at reducing cyberbullying victimization.

The instructive mediation strategy for SNS enables parents and their children to have an open dialogue concerning communication via SNS (Mesch, 2009). Such communication permits opportunities for parents and their children to discuss cyberbullying victimization and ways to reduce their exposure (Nikken & de Haan, 2015; Talves & Kalmus, 2015). This communication is continuous, and thus helps adolescents understand what situations to avoid, since they know what situations might lead to cyberbullying victimization. In addition, the instructive mediation strategy facilitates discussions between parents and children concerning online risks, thus making these children more likely to act in ways that minimize their exposure to such risks.

The interaction findings contribute important information to the literature on the mitigating role of parental mediation strategies for SNS in adolescents' depression and anxiety symptoms associated with cyberbullying victimization. Another key finding from the interaction effects was the differential patterns of associations for the restrictive and instructive mediation strategies for SNS. Coviewing mediation did not moderate the associations between cyberbullying victimization through SNS and depression and anxiety (Hypothesis 4). Higher levels of instructive mediation and lower levels of restrictive mediation for SNS reduced the negative relationships between cyberbullying victimization and depression, providing partial support for Hypothesis 4 and full support for Hypothesis 5. On the other hand, the positive associations between cyberbullying victimization and depression were more positive at lower levels of instructive mediation for SNS and higher levels of restrictive mediation for SNS. The findings regarding instructive mediation for SNS are consistent with research, which indicates that parental mediation buffers against adolescents' cyberbullying

victimization and their experience of depression and anxiety (Mesch, 2009; Navarro et al., 2013; Wright, 2015). Such a result underscores the importance of instructive mediation in reducing adolescents' risk of cyberbullying victimization through SNS. Instructive mediation might involve high levels of social support, allowing adolescents the opportunity to utilize their parents as a coping strategy for dealing with cyberbullying victimization (Arrizabalaga-Crespo et al., 2010). The literature also highlights the importance of social support as a buffer against adolescents' depression and anxiety concerning a variety of negative online and offline experiences in adolescents' lives (Cheng, Cheung, & Cheung, 2008; Osborne & Rhodes, 2001; Ybarra, Mitchell, Palmer, & Reisner, 2015). Restrictive mediation might not involve social support as parents are more concerned with enforcing rules, without the input of their children. This might prevent adolescents from utilizing appropriate coping strategies to deal with cyberbullying experiences.

6 Limitations and Future Directions

Although this study employed a longitudinal design, it involved two time points, which were assessed one year apart. There may have been other risks that adolescents were exposed to during this time. Therefore, follow-up research should use longitudinal designs with shorter assessment periods and longer study durations. Such research should also focus on different age groups, because parents might use more restrictive mediation for younger children than for older children. Restrictive mediation might be considered developmentally appropriate for younger children, and it might have different effects on their depression and anxiety. The literature has revealed

three different parental mediation strategies. However, it is possible that other mediation strategies exist. Follow-up research should incorporate qualitative methods in order to reveal other parental mediation strategies. In addition, it is difficult to determine the temporal ordering of the variables examined in this study because cyberbullying victimization and parental mediation strategies were assessed at one time period only. Additional research should be undertaken to examine each of these variables over multiple periods to better clarify the associations found in the present research.

7 Conclusion

The present study investigated the potential buffering effect of restrictive, coviewing, and instructive parental mediation strategies for SNS on the relationship between cyberbullying victimization and depression and anxiety. The findings revealed that higher levels of instructive mediation buffered against the negative effects of cyberbullying victimization, while higher levels of restrictive mediation had the opposite effect. Parents should recognize the importance of their role in mitigating their children's cyberbullying victimization through SNS and the resulting depression and anxiety symptoms. The use of restrictive mediation should be minimized as this form of mediation is linked to negative outcomes. Instead, parents should employ instructive mediation strategies when it comes to their children's SNS use. Furthermore, the findings from the present study underscore the importance of parental involvement in reducing children's online risks and adjustment difficulties. For parents to reduce their children's online risks and associated adjustment difficulties, they must keep an open dialogue with their children on these risks and maintain and enforce strategies for mitigating these risks.

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