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Cyberbullying Victimization: Associations with Other Victimization Forms and Psychological Distress

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I. INTRODUCTION

Cyberbullying has gained increasing attention over the past decade, in part driven by significant media coverage on this topic.[1] While media attention has increased, prevalence rates derived from national and local surveys indicate that cyberbullying is a less common experience among youth than traditional bullying.[2] Nonetheless, a significant number of youth experience both cyberbullying and its deleterious effects, and additional research is needed to guide nascent prevention and intervention efforts. In particular, existing research does not clarify the extent to which cyberbullying overlaps with traditional bullying or other forms of victimization that children might encounter in their schools, homes, and communities. Further, few studies have focused on the extent to which cyberbullying contributes to psychological distress when combined with other victimization exposures. To that end, the goals of the current investigation were to, (1) assess rates of cyberbullying victimization by sex, age, and race/ethnicity; (2) examine the overlap between cyberbullying victimization and traditional bullying; (3) evaluate the overlap between cyberbullying victimization and other victimization forms, and (4) determine the extent to which cyberbullying victimization alone and in con-

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1. *See, e.g.*, Steve Eder, *Teachers Fight Online Slams*, WALL ST. J. (Sept. 17, 2012), http://online.wsj.com/article/SB10000872396390443779404577644032386310506.html; Emily Laden, *On Facebook, Bullies 'Like' If You Hate*, N.Y. TIMES (Sept. 9, 2012), http://parenting.blogs.nytimes.com/2012/09/09/on-facebook-bullies-like-if-you-hate/; Harvey Morris, *Fighting Cyberbullies with Laws and Laughter*, N.Y. TIMES (June 9, 2012), http://rendezvous.blogs.nytimes.com/2012/06/09/fighting-cyberbullies-with-laws-and-laughter/.

2. Michele L. Ybarra et al., *Comparisons of Bully and Unwanted Sexual Experiences Online and Offline Among a National Sample of Youth*, in COMPLEMENTARY PEDIATRICS 203, 207 (Öner Özdemir ed., 2012); Michele Ybarra et al., *Unwanted Sexual and Harassing Experiences: From School to Text Messaging, in* BULLYING IN NORTH AMERICAN SCHOOLS 62 (Dorothy L. Espelage & Susan M. Swearer eds., 2d ed. 2011).

junction with other victimization exposures is associated with psychological distress. Given the limited research base on these issues, and at times divergent findings (e.g., with respect to sex differences),[3] the investigation was largely exploratory. However, we expected to find a significant association between cyber and traditional bullying.

II. EXISTING RESEARCH

A. Cyberbullying Prevalence: Overall and by Demographic Characteristics

Sampling and methodological differences have contributed to a wide range of prevalence estimates for cyberbullying set forth. For example, prevalence estimates of cyberbullying victimization range from 9% to 35% and perpetration rates range from 4% to 21%.[4] In terms of frequency of involvement, in a nationally representative study of 6th to10th grade students in the United States, 5.6% of youth reported "occasional" cyber victimization, and 4.3% of youth reported "frequent" cyber victimization.[5] In this same study, 4.2% of youth stated they engaged in "occasional" cyberbullying perpetration, and 4.3% indicated they were involved in "frequent" cyberbullying perpetration.[6] When considering subtypes of youth involved in cyberbullying, in an investigation of nearly 4000 middle school students, Kowalski and Limber found that 11.1% of middle school youth were victims, 6.8% were bully-victims, and 4.1 were perpetrators of electronic bullying.[7]

Beyond prevalence and perpetration estimates, a range of demographic differences in cyberbullying has also been shown in a limited number of studies examining cyberbullying by sex, grade, and race/ethnicity. Results pertaining to sex differences have been conflicting.[8] Specifically Wang and

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3. *See infra notes* 8-11 and accompanying text.

4. Jerry Finn, *A Survey of Online Harassment at a University Campus*, 19 J. INTERPERSONAL VIOLENCE 468, 468 (2004); Robin M. Kowalski & Susan P. Limber, *Electronic Bullying Among Middle School Students*, 41 J. ADOLESCENT HEALTH S22, S26 (2007); Justin W. Patchin & Sameer Hinduja, *Bullies Move Beyond the Schoolyard: A Preliminary Look at Cyberbullying*, 4 YOUTH & JUV. JUST. 148, 151 (2006); Kirk R. Williams & Nancy G. Guerra, *Prevalence and Predictors of Internet Bullying*, 41 J. ADOLESCENT HEALTH S14, S18 (2007); Michele L. Ybarra et al., *Examining the Overlap in Internet Harassment and School Bullying: Implications for School Intervention*, 41 J. ADOLESCENT HEALTH S42, S45-46 (2007).

5. Jing Wang et al., *Cyber and Traditional Bullying: Differential Association with Depression*, 48 J. ADOLESCENT HEALTH 415, 417 (2011) [hereinafter Wang et al., *Cyber and Traditional Bullying*].

6. *Id.*

7. Kowalski & Limber, *supra* note 4, at S25.

8. *Compare id., and* Jing Wang et al., *School Bullying Among US Adolescents: Physical, Verbal, Relational and Cyber*, 45 J. ADOLESCENT HEALTH 386, 371 (2009)

colleagues found that boys were more likely to be classified as cyberbullies than girls, but that girls were more likely to be cyber victims than boys.[9] In contrast, Low and Espelage found girls to report higher levels of cyberbullying perpetration,[10] and Williams and Guerra did not find differences in cyberbullying between males and females.[11] With respect to relations between cyberbullying involvement and age, between Swiss and Australian adolescents there was no association between age and cyber victimization, but older youth were significantly more likely to engage in cyber perpetration.[12] Conversely, Williams and Guerra found that the peak for Internet perpetration was in the 8th grade, at which time 12.9% of youth reported such behaviors in contrast to 4.5% of 5th graders and 9.9% of 10th graders.[13] Finally, the majority of studies have predominantly consisted of White participants and thus potential racial/ethnic differences in prevalence remain largely unknown. Two studies which did examine differences by race suggest that African Americans engage in cyberbullying at higher rates than students who identify with other racial/ethnic backgrounds.[14] This study will add to the limited research base on associations between cyberbullying victimization and demographic characteristics through an examination of how prevalence varies by sex, age, and race/ethnicity.

B. Overlap Between Cyberbullying Victimization and Other Victimization Forms

Adolescents spend significant time interacting with media, social networking sites, and web-based environments. Adolescents enter these spaces with past or concurrent victimization experiences from other contexts in their life. For instance, in a recent survey of 4053 adolescents, approximately 80% reported experiencing some type of peer (e.g., bullying) or familial (e.g., maltreatment, sibling) victimization in their lifetimes, and 66% reported experiencing at least two forms of victimization.[15] Another study focusing on poly-

[hereinafter Wang et al., *School Bullying*], *with* Williams & Guerra, *supra* note 4, at S18.

    9. Wang et al., *School Bullying*, *supra* note 8, at 371-72.

    10. Sabina Low & Dorothy Espelage, *Differentiating Cyber Bullying Perpetration from Non-Physical Bullying: Commonalities Across Race, Individual, and Family Predictors*, 3 PSYCHOL. VIOLENCE 39, 47 (2013).

    11. Williams & Guerra, *supra* note 4, at S18.

    12. Sonja Perren et al., *Bullying in School and Cyberspace: Associations with Depressive Symptoms in Swiss and Australian Adolescents*, CHILD & ADOLESCENT PSYCHIATRY & MENTAL HEALTH, Jan. 2010, at 1, 5-6, 7-8.

    13. Williams & Guerra, *supra* note 4, at S18.

    14. Low & Espelage, *supra* note 10, at 47; Wang et al., *School Bullying*, *supra* note 8, at 371.

    15. Heather A. Turner et al., *Poly-Victimization in a National Sample of Children and Youth*, 38 AM. J. PREVENTIVE MED. 323, 325 (2010).

victimization in children between the ages of two and seventeen found 18% of participants experienced four or more different kinds of victimization, and 64% of participants experienced at least two types of victimization in the last year.[16] As such, it is clear that some adolescents are entering the online environment with offline victimization experiences influencing how they interact and react during their online experiences.

Indeed, there appears to be a link between online and offline victimization exposures. In a nationally representative study of adolescents, 96% of youth who reported an online victimization (including online harassment and sexual solicitation) in the past year also reported offline victimization.[17] Further, among Swiss and Australian adolescents, 39% of traditional victims had also experienced cyberbullying victimization, and similarly 41% of traditional bullies had also engaged in cyberbullying perpetration.[18] Such findings point to the reality that many youth who are interacting online might have victimization histories which could heighten their vulnerability to psychological distress associated with cyber victimization.

C. Links Between Cyberbullying and Psychological Distress

Adolescents who are targets of any type of Internet harassment can potentially experience psychological distress as a result. Wolak and colleagues found that 30% of adolescents considered Internet harassing experiences to be "very or extremely upsetting" and 22% found them to be "very or extremely embarrassing."[19] In terms of cyberbullying specifically, one nationally representative survey of students in grades 6th through 10th found that victims of cyberbullying reported more depression than uninvolved youth and cyberbullies..[20] Further, victimization in the online environment may uniquely contribute to psychological distress beyond that which is explained by traditional bullying experiences. For instance, between Swiss and Australian early adolescents, cyberbullying victimization was independently associated with depression, even after taking traditional bullying victimization into account.[21]

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16. David Finkelhor et al., *Polyvictimization and Trauma in a National Longitudinal Cohort*, 19 DEV. PSYCHOPATHOLOGY 149, 156 (2007).

17. Kimberly J. Mitchell et al., *Youth Internet Victimization in a Broader Victimization Context*, 48 J. ADOLESCENT HEALTH 128, 130 (2011).

18. Perren et al., *supra* note 12, at 5.

19. JANIS WOLAK ET AL., NAT'L CENTER FOR MISSING & EXPLOITED CHILD., ONLINE VICTIMIZATION OF YOUTH: FIVE YEARS LATER 41 (2006), http://www.missingkids.com/en_US/publications/NC167.pdf.

20. Wang et al., *Cyber and Traditional Bullying*, *supra* note 5, at 417.

21. Perren et al., *supra* note 12, at 8.

III. METHODS

In our study, students completed self-report surveys in 2008 as part of the Dane County Youth Survey (DCYS), a county-wide survey administered in middle and high schools in Dane County, Wisconsin. Students completed the surveys electronically in school computer labs in proctored sessions. The county is geographically diverse, with communities ranging from rural to urban. All schools used a waiver of active consent and children provided written assent. Within participating schools the response rate for students was over 90%. The study obtained Institutional Review Board approval through both participating school district's IRBs and the University of Illinois IRB.

Nine thousand six hundred seventy-four (9674) high school students (grades 9-12) enrolled at 28 schools participated in the survey. They ranged in age from 14 to 18 years (M = 15.81, SD = 1.22), and included roughly equal numbers of boys and girls (52% females). Most participants were White, non-Hispanic students (79.8%). Other racial/ethnic groups represented included, Black (4.7%), Hispanic (3.4%), Asian (3.9%), Native American (0.9%) and multi-racial/"other" (7.2%). Seven percent (7%) of participants identified as gay, lesbian, bisexual, transgendered, or questioning.

A. Measures

The DCYS consists of a range of questions assessing physical and mental health indicators, attitudes, and social behaviors. Students provide information about their sex, age, grade in school, race/ethnicity, and sexual orientation. Details about the relevant survey scales and items follow:

Cyberbullying Victimization: To assess cyberbullying victimization, students were asked, "In the past 12 months, how often have you been bullied, threatened, or harassed through the Internet or text messaging?" Response options included: "Never," "Rarely," "Sometimes," "Often," and "Very often." Students were considered to have experienced cyberbullying victimization if they selected any response other than "Never."

Traditional Bullying Involvement: The Bullying and Victimization subscales from the University of Illinois Aggression Scales[22] were used to assess the occurrence of bullying behavior and victimization by peers. Students were asked to indicate how often in the past thirty days they engaged in a specified behavior. Response options included: "Never," "1-2 times," "3-4 times", "5-6 times," and "7 or more times." The Bullying Scale contains nine items specifying bullying behaviors including teasing, social exclusion,

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22. Dorothy L. Espelage & Melissa K. Holt, *Bullying and Victimization During Early Adolescence: Peer Influences and Psychosocial Correlates*, 2 J. EMOTIONAL ABUSE 123, 123-24 (2001).

name-calling, and rumor spreading (e.g., "I teased other students" and "I upset other students for the fun of it").[23] This scale was found to converge with peer nomination data.[24] For this sample, a Cronbach alpha coefficient of .88 was obtained, suggesting that the items all tapped into a singular construct. The Victimization Scale contains four items assessing victimization by peers (e.g., "Other students called me names," and "I got hit and pushed by other students"). In the present study, the Cronbach alpha coefficient was .86 for this scale, suggesting that the victimization items all reflected a singular underlying construct.

  Victimization Exposure: Students were asked questions about exposure to domestic violence, physical abuse, sexual abuse, and dating violence. To assess exposure to domestic violence, respondents were asked to report the extent to which they agreed with the following statement: "My parents physically fight with one another." Response options were: "Strongly agree," "Agree," "Disagree," and "Strongly disagree." Students who responded "Strongly agree" or "Agree" were considered to have witnessed domestic violence. With respect to physical abuse, students were asked: "When was the last time a parent kicked you or hit you with their hand/fist or with an object leaving bruises or bumps?" Response options were: "Past 30 days," "Not last 30 days but last 12 months," "More than 12 months ago," and "Never." Students who reported experiencing these behaviors at any time were considered to have been physically abused. Sexual abuse was assessed through the question: "When was the last time any adult touched you in a sexual way or forced you to touch them in a sexual way that made you feel unsafe or hurt you in any way?" Response options were: "Past 30 days," "Not last 30 days but last 12 months," "More than 12 months ago," "Never." Students who reported experiencing these behaviors at any time were considered to have been sexually abused. For dating violence victimization, students were asked: "Has a boyfriend or girlfriend ever hit, slapped or physically hurt you on purpose?" Response options were: "Yes," "No," and "Don't know." Students who responded "Yes" to this item were considered to have experienced dating violence victimization.

  Psychological Functioning: Students were asked a series of questions about their mental health. Questions focused on whether students had experienced symptoms of depression in the past year ("During the past 12 months did you ever feel so sad or hopeless almost every day?"), had recent suicidal thoughts ("During the past 30 days have you ever thought seriously about killing yourself?"), or had engaged in self-harm behaviors ("When was the last time you intentionally cut, scratched, or burned yourself?"). For self-harm, respondents were grouped into two categories, one for any self-harm behaviors and one for no self-harm behaviors. Finally, students were asked

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  23. *Id.* at 130.
  24. Dorothy L. Espelage et al., *Examination of Peer-Group Contextual Effects on Aggression During Early Adolescence*, 74 CHILD DEV. 205, 208 (2003).

whether they were taking medication for depression, anxiety, or other personal problems.

IV. RESULTS

A. Statistical Analyses

We conducted preliminary analyses to determine prevalence rates of cyber and traditional bullying involvement and victimization experiences, and to assess the extent to which these variables were related.

With respect to the frequency of cyberbullying experiences within this sample, 20.7% of students reported having experienced at least one incident of cyberbullying victimization. For most students, cyberbullying victimization occurred rarely (13.0%), with lower frequencies of students indicating that cyberbullying occurred sometimes (5.6%), often (1.1%), and very often (1.1%). There was a statistically significant sex difference for cyberbullying victimization, whereby girls (24.2% ever experiencing) reported more victimization than boys (16.7% ever experiencing) ($\chi^2 = 110.76$, df $= 4$, $p < .001$). In terms of differences by grade, 20.3% of 9th graders reported cyberbullying victimization as did 23.8% of 10th graders, 20.0% of 11th graders, and 18.4% of 12th graders ($\chi^2 = 21.13$, df $= 3$, $p < .001$). With respect to race/ethnicity, there was a statistically significant association across all groups ($\chi^2 = 17.89$, df $= 5$, $p < .01$). Specifically, Native American and Mixed Race/"Other" Race students reported the most cyberbullying victimization, 26.2%, 26.6% respectively, and Asian students reported the least cyberbullying victimization, 18.2%. Rates for other groups were roughly comparable:21.4% Black, 20.6% Hispanic, 20.2% White.

Next, students were classified into four groups based on their traditional bullying involvement. Students who scored one standard deviation above the mean on the bullying perpetration scale, but not on the victimization scale, were classified as 'bullies.' Similarly, students who scored one standard deviation above the mean on the bullying victimization scale, but not the perpetration scale, were classified as 'victims.' 'Bully-victims' were students whose scores were one standard deviation above the mean on both the perpetration and victimization scales. Finally, respondents who did not score one standard deviation above the mean on either scale were classified into the 'Comparison' group. Corresponding percentages for each of these groups were, 5.7% Bully-Victims, 5.7% Bullies, and 8.8% Victims. Rates of bullying involvement across these groups varied significantly by sex ($\chi^2 = 116.57$, df $= 3$, $p < .001$). Specifically, males were more likely to be classified as bully-victims (8.1% vs. 3.7% for females), bullies (6.9% vs. 4.7% for females), and victims (9.6% vs. 8.1% for females). There was also a statistically significant association with grade ($\chi^2 = 91.41$, df $= 9$, $p < .001$), whereby older students tended to show less involvement in any bullying subtype.

Next, we examined frequencies of other victimization exposures. Overall, 15.7% of students reported physical abuse, 3.9% reported sexual abuse,

2.2% reported exposure to intimate partner violence between caregivers, and 7.8% reported dating violence victimization.   We computed a multi-victimization variable based on these domains to determine the total number of distinct victimization experiences. The majority of students, 78%, reported no victimization, 17% reported one of the aforementioned victimization experiences, 4.1% reported two, 0.9% reported three, and 0.1% reported four experiences. Given the small percentages of students reporting either three or four victimization experiences, we combined these categories for subsequent analyses.

B. Overlap Between Cyberbullying, Traditional Bullying, and Other Victimizations

We first assessed concurrent association between the percentage of cyberbullying victims and the percentage of students who also reported traditional bullying involvement.   Results indicated that among cyberbullying victims, 18.2% were classified as traditional victims, 14.3% were classified as traditional bully-victims, and 8.8% were classified as traditional bullies. These rates were significantly higher than those reported by students who had not experienced cyberbullying victimization (χ^2= 698.03, df = 3, p < .001), and were consistent with our hypothesis. When examined in the opposite direction for just victims, which reflects an approach used in previous studies[25] – that is, determining how many traditional victims also reported cyberbullying victimization – results indicated that 42.5% of traditional victims were also victims in the online context.

Further, students who had experienced cyberbullying victimization also had higher rates of victimization exposures in other domains. Among cyberbullying victims, 25.4% (24.8% males, 25.7% females) indicated a history of physical abuse compared to 12.6% of students who were not cyberbullying victims (χ^2= 188.64, df = 1, p < .001). Similarly, 8.5% of cyberbullying victims representing 2.8% males and 12.6% females revealed histories of sexual abuse in contrast to 2.4% of comparison students (χ^2= 154.14, df = 1, p < .001). Further, 4.0% of cyberbullying victims representing 3.8% males and 4.2% females reported exposure to domestic violence in contrast to 1.6% of comparison students (χ^2= 43.52, df = 1, p < .001). Finally, 15.7% of cyberbullying victims, representing 13.3% males and 17.2% females, indicated dating violence victimization, whereas only 5.6% of students without online victimization experiences indicated dating violence victimization. (χ^2= 207.10, df = 4, p < .001).

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25. Perren et al., *supra* note 12, at 5.

C. Cyberbullying and Psychological Functioning

We next examined associations between cyberbullying victimization and mental health, and explored the extent to which cyberbullying victimization relates to psychological distress in the context of other victimization forms.

Students who were victims of cyberbullying reported significantly more depression than students who were not victims (34.7% vs. 14.5%; χ^2= 398.74, df = 1, p < .001). Similarly, 19.8% of cyberbullying victims reported at least some suicidal ideation within the past thirty days, in contrast to 6.9% of comparison students (χ^2= 110.76, df = 4, p < .001). With respect to self-harm behaviors, 29.3% of cyber victims reported engaging in self-harm at some point in their lifetime, whereas only 11.9% of comparison students reported lifetime self-harm behaviors (χ^2= 338.42, df = 1, p < .001). Finally, with respect to the percent of students taking medication for depression, anxiety, or other personal problems, 17.8% of students who had experienced cyber victimization reported taking medication, in comparison to 8.9% of other students (χ^2= 121.76, df = 1, p < .001). As such, there was a strong relation between cyberbullying victimization and mental health symptoms. For subsequent analyses using psychological distress as the dependent variable we elected to use only depression as an indicator of psychological distress for brevity.

We next conducted a Chi Square comparing depressive symptoms for (1) students with no bullying in either domain, (2) students with one form of bullying – either cyber or traditional, and (3) students with both cyber and traditional bullying experiences. These analyses also included sex as an independent variable. Results suggested that there were statistically significant differences (χ^2= 377.21, df = 2, p < .001). Specifically, both girls and boys experiencing two forms of bullying victimization (cyber and traditional) reported more depressive symptoms (26.3% males, 52.1% females) than girls and boys reporting only one form of bullying victimization (19.7% males, 31.6% females), and those students who had experienced no bullying victimization in either domain reported the lowest rates of depressive symptoms (10.5% males, 17.6% females). As such, there was a relation between number of victimization forms and mental health symptoms.

For the final analysis we conducted two Chi-Square analyses, one for males, one for females, comparing depressive symptoms for students who had experienced only cyber victimization and for students who had experienced one or more additional victimization form such as, physical abuse, exposure to domestic violence, sexual abuse, and dating violence. For both males and females, the Pearson Chi Square value was statistically significant (males: χ^2= 76.39, df = 1, p < .001; females: χ^2= 258.62, df = 1, p < .001). Among males who experienced only cyberbullying victimization, 17.8% reported depressive symptoms, as compared to 33.1% who reported one additional victimization exposure and 34.6% who reported two additional victimization exposures (the sample size was too small to present accurate results for those who expe-

rienced three-to-four victimization exposures). A similar pattern emerged among females. Specifically, among girls who experienced only cyberbullying victimization, 31.2% reported depressive symptoms, as compared to 47.1% of girls who reported one victimization exposure in addition to cyber victimization, and 74.8% who reported two victimization exposures in addition to cyber victimization.

V. CONCLUSION

Emerging evidence suggests that Internet harassment, broadly defined, among youth is increasing,[26] highlighting the importance of better understanding and addressing this issue. Although 21% of students surveyed reported some exposure to cyberbully victimization, only 8% reported exposure more than rarely in the last twelve months.[27] This percentage is consistent with findings from a nationally representative study of 6th to 10th grade students in the United States.[28] Further, this study finds that girls reported more cyber victimization experiences than boys,[29] which is consistent with results derived from a recent national study[30] and which adds to the limited research base on sex differences in cyberbullying experiences. Further, this study helps clarify the correlation between cyberbullying and age by showing that cyberbullying victimization peaked in 10th grade before declining through the end of high school.[31] Finally, this study added new information to the field about racial/ethnic differences in cyberbullying victimization experiences, and suggests that Native American youth and those who ascribe to multiple racial/ethnic categories are at greatest risk for encountering bullying victimization online.[32]

Additionally, this study found some overlap between cyberbully victimization and involvement in traditional bully perpetration and victimization experiences with peers at school. That is, of the cyberbully victims in this sample, 18% were classified as traditional victims at school, 14% as bully-victims at school, and 8.8% as bullies at school.[33] These numbers stand in stark contrast to the 96% of youth with online victimizations in the past year who also reported offline victimization, although it should be noted that these online experiences were not restricted to cyberbullying victimization (e.g.,

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26. Lisa M. Jones et al., *Trends in Youth Internet Victimization: Findings from Three Youth Internet Safety Surveys 2000-2010*, 50 J. ADOLESCENT HEALTH 179, 182 (2012).

27. *See supra* Part IV.A.

28. Wang et al., *Cyber and Traditional Bullying*, *supra* 5, at 417.

29. *See supra* Part IV.A.

30. Wang et al., *School Bullying*, *supra* note 8, at 371.

31. *See supra* Part IV.A.

32. *See supra* Part IV.A.

33. *See supra* Part IV.B.

online sexual solicitation).[34] However, when considering the overlap from a slightly different perspective – that is, determining how many traditional victims also reported online cyber victimization – results indicated that there was indeed an overlap for 42.5% of students in this sample.[35] This result is consistent with findings from Swiss and Australian youth indicating that 39% of traditional victims had also experienced cyberbullying victimization, and that 41% of traditional bullies had also engaged in cyberbullying perpetration.[36] To further clarify the overlap between cyber and traditional bullying victimization experiences requires additional research with consistent methodologies drawing from national samples.

However, this study was limited by its assessment of only cyberbullying victimization, not cyberbullying perpetration, which has been associated with face-to-face bullying perpetration. In a recent longitudinal analyses of 1132 middle school students (grades 5-7) across two years, structural equation modeling findings indicated that higher bullying perpetration at an earlier time point was predictive of increases in cyberbullying perpetration in consecutive time points (after controlling for previous cyberbullying behaviors).[37] This study suggests that face-to-face bullying perpetration is an antecedent of cyberbullying perpetration during early adolescence.[38] Future research could extend this longitudinal framework to cyber victimization to determine whether a similar pattern exists.

Further, the current study indicates that this sample of Midwestern high school students had significant exposure to other forms of victimization, and this exposure needs to be considered as an important predictor of psychological adjustment. Importantly, rates of victimization exposure was much higher among cyber victims than comparison youth.[39] Twenty-five percent of cyber victims reported having been physically abused by a caregiver, 16% reported being victimized in a dating relationship, 8% report child sexual abuse victimization, and 4% indicated witnessing domestic violence.[40] Further, results indicated that depressive symptoms increased as the number of total victimization experiences increased.[41] It is critical to understand the range of victimization experiences among youth experiencing cyber victimization for a number of reasons. First, in counseling interventions, assessing this range will allow for a comprehensive understanding of issues that might need to be addressed, and the potential extent of psychological distress. Second, this

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34. Mitchell et al., *supra* note 17, at 132.

35. *See supra* Part IV.B.

36. Perren et al., *supra* note 12, at 5.

37. Dorothy L. Espelage et al., *Theories of Cyberbullying, in* PRINCIPLES OF CYBERBULLYING RESEARCH: DEFINITIONS, MEASURES, AND METHODOLOGY 49, 57-58 (Sheri Bauman ed. 2013) [hereinafter Espelage et al., *Theories of Cyberbullying*].

38. *Id.*

39. *See supra* Part IV.B.

40. *See supra* Part IV.B.

41. *See supra* Part IV.C.

broader victimization history may be relevant in legal cases involving cyber-bullying. Third, among all youth with significant victimization histories it is important to address such victimizations as early as possible given evidence that in some domains (e.g., dating violence) victimization risk is heightened for those with previous victimization experiences.[42]

Finally, this study's findings offer potential guidance about components to consider in cyberbullying prevention efforts, which thus far have remained somewhat limited. To date, literature has suggested that some aspects of prevention apply both to traditional and cyberbullying. For instance, changing normative beliefs about the extent to which bullying is acceptable and increasing trust and support levels among peers are thought to have positive effects on both bullying forms.[43] In addition, given the substantial predictive power of face-to-face bullying to cyberbullying documented in a recent study, researchers have suggested addressing how face-to-face encounters in school might spill over into cyberspace where adult monitoring and intervention is relatively absent.[44] This Article's investigation additionally highlights that broader victimization experiences should be considered when designing prevention and intervention programs. Given evidence from the field that earlier victimization experiences might increase risk for subsequent victimization among youth, it is of particular importance to address these issues as early as possible in school-wide prevention programs.[45] Overall, as evidenced by the current investigation, cyberbullying is complex, at times occurring in the context of other victimization exposures and accompanied by great psychological distress. Accordingly, it is critical to design prevention programs that adequately address this constellation of concerns.

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42. Marie-Hélène Gagné et al., *Victimization During Childhood and Revictimization in Dating Relationships in Adolescent Girls*, 29 CHILD ABUSE & NEGLECT 1155, 1156 (2005).

43. Williams & Guerra, *supra* note 4, at S18.

44. Espelage et al., *Theories of Cyberbullying, supra* note 37, at 57-58.

45. Carolyn Tucker Halpern et al., *Patterns of Intimate Partner Violence Victimization from Adolescence to Young Adulthood in a Nationally Representative Sample*, 45 J. ADOLESCENT HEALTH 508, 509 (2009).