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Abstract

Although the topic of cyber-harassment in schools is one that has received significant media and research attention, much of that attention has been given to harassment against (and among) students. In this article, we examine responses from more than 5,700 public schoolteachers regarding their experiences with cyber-harassment by parents, a topic heretofore unexplored in the United States. Analyses suggest that victims of cyber-harassment are significantly more likely to teach in middle and high schools with large enrollments, be younger, and perceive their interactions with parents as largely negative. Implications for policy and future research are discussed.

Keywords

cyber-harassment, cyberbullying, teacher retention and turnover, parent education, parent involvement

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Introduction

Scholarly research has often highlighted the importance of school climate and culture on the educational experience of students, teachers, administrators, and parents. The climate and culture of a school is associated with teacher retention (H. F. Ladd, 2011), student academic performance (Bulach, Lunenberg, & Potter, 2008), and perceptions of school disorder (G. D. Gottfredson, Payne, Gottfredson, & Gottfredson, 2005). A large number of studies have also examined bullying, cyberbullying, and bullying prevention strategies among students in schools throughout the world (Olweus, 2012). Nevertheless, with the exception of the teacher retention studies mentioned above, the vast majority of the research in each of these areas has examined these problems primarily among students and left unexamined the impact of many of these school factors on teachers' perceptions and experiences.

One largely overlooked area of research concerns cyberbullying or cyber-harassment from parents to teachers. Schools currently use email as a primary or supplemental means to distribute information and proactively establish involvement of the parent (Barker, 2008; Hu, Wong, Cheah, & Wong, 2009; Lewin & Luckin, 2010). In fact, Horowitz (2009) determined that almost all of the approximately 1,800 teachers in her sample used email to communicate with colleagues (99.6%) and administrators (98.5%), while the vast majority (86.0%) used email to communicate with parents. With this shift to email as a primary means of communication between parents and teachers, however, the potential anonymity and/or impersonal nature of email may create additional opportunities for individuals to harass or threaten one another.

The purpose of this research is to use data from an electronic survey that were distributed to all educators in more than 90% of public school districts in Kentucky to explore teachers' personal experiences with cyber-harassment and the correlates and consequences of that harassment. In doing so, we seek to address key gaps in the literature regarding parental aggression toward teachers. In general, researchers, policymakers, and practitioners have little information about (a) the prevalence or incidence of cyber-harassment toward teachers and (b) situational and contextual factors associated with cyber-harassment toward teachers. Thus, this project lays an important foundation for future work in this area by creating a baseline of knowledge regarding this topic that currently is limited in the United States.

Literature Review

A sizable volume of literature concerning school safety has emerged during the last two decades. Numerous studies have examined the extent and effects

of matters such as bullying, threats of violence, and weapons on campus (Arseneault et al., 2006; Buhs, Ladd, & Herald, 2006; Cornell & Mayer, 2010; Flannery, Wester, & Singer, 2004; G. W. Ladd, 2003; Nishina, Juvonen, & Witkow, 2005; Olweus, 1993). Most of this research, however, has focused on issues associated with individual students or relationships between students (e.g., student bullies and student victims of bullying, aggressors and victims in student-on-student assaults), though some studies have examined attacks and threats against teachers from students (Robers, Zhang, Truman, & Snyder, 2012). With limited exception (May, Johnson, Chen, Hutchinson, & Ricketts, 2010), a missing component in the school safety research concerns relationships and interactions between parents and teachers.

Parents positively impact the education of their children in a variety of ways. Pomerantz, Moorman, and Litwack (2007) suggest that parents are present at general school meetings and attend parent-teacher conferences, open houses, and a wide variety of extracurricular events (e.g., sporting events, science fairs, plays). In addition, a number of parents volunteer their time to assist in the classroom, in the library, and on field trips, although this participation is often limited by socioeconomic status (Lareau, 1989). Researchers have recognized the crucial role that active parents have in the school environment. Without the assistance of parent volunteers, some extracurricular activities (e.g., field trips) might not be possible because of a deficiency in the number of adult chaperones. More importantly, parental involvement has consistently been shown to be positively related to the academic performance and socioemotional development of elementary and middle school students (El Nokali, Bachman, & Votuba-Drzal, 2010; Hill & Tyson, 2009; Lareau, 1989; Pomerantz et al., 2007). Evidence concerning the importance of parental involvement in schools had led to recent legislation that identifies partnerships between parents and educators as a voluntary national goal for schools (Epstein, 2010; Lareau & Lopes Munoz, 2012).

Despite the important positive contributions made by parents in the school setting, negative parental interaction has been cited as a source of undesirable occupational experiences for teachers (Attanucci, 2004; May et al., 2010; Jeynes, 2005; Moses, Slough, & Croll, 1987). Negative interactions often occur with parents who communicate in demeaning, manipulative, threatening, and/or directly or passively aggressive ways with teachers. Managing parents that exhibit such problematic behavior is both a time-consuming and frustrating part of the teacher's daily activities (McEwen, 2005). Still, the vast majority of literature does not directly address the prevalence, types, or sources of aggressive or otherwise problematic behavior of parents toward educators (May et al., 2010; Epstein, 2001; St. John-Brooks, 2001). The modicum of empirical research that has measured negative behavior

of parents toward teachers and administrators has indicated that parental aggression is a problem for educators. Although some educators experience physical aggression from parents, they most often experience negative parental behavior through verbal or written threats or intimidation (May et al., 2010; Meglynn, 2005; Trump & Moore, 2001). Such non-physical aggression has traditionally occurred during face-to-face meetings, phone calls, or written letters. In recent years, however, additional mechanisms for communication have developed quickly, and parents may communicate with, and possibly harass, teachers using technology such as text messaging or the Internet.

Presently, one of the most common computer-mediated forms of communication is email. The number of Americans using email has increased considerably as technology and the Internet have become more accessible to the public. Although there are some demographic differences among individuals using email as compared with those who do not, email use has become more universal in recent years (Purcell, 2011). In fact, the proportion of Americans using email increased 15% from 2002 (55%) to 2011 (70%; Purcell, 2011). Recent research indicates that 78% of American adults use the Internet, and 91% of those users send and/or receive email (Zickuhr & Smith, 2012).

While email is a popular and efficient form of communication, it can be used for malicious purposes. Regardless of whether someone is using an anonymous account or providing identifying information in the account, email is often viewed as an impersonal form of communication. As with a written letter, email is one sided and the receiver is not able to offer the immediate response or feedback that would occur in a face-to-face interaction (Byron, 2008). In addition, individuals may be less inhibited via email because (a) it can be written at any time (i.e., spur of the moment before the person has thought through the immediate problem) and (b) physical size and other characteristics of the receiver are not an issue (Li, 2008). Consequently, as with other forms of communication, email may be used as a mechanism to harass, bully, or otherwise threaten someone (Whitty & Carr, 2006).

Recently, email and other types of cyber-harassment and cyberbullying have received a fair amount of media and scientific attention. Cyberbullying and cyber-harassment are terms that are often used interchangeably. The definition and context of each term differs primarily depending on the age of the person committing the act. The definition of cyberbullying generally refers to minors using harassing electronic communications toward another minor (Brown, Jackson, & Cassidy, 2006; Holladay, 2011; Miller, 2006; Steffgen, Konig, Pfetsch, & Melzer, 2009). For example, the KentuckyCenter for School Safety (KCSS, 2011) defines cyberbullying as

the use of information and technology such as e-mail, instant messaging, the publishing of defamatory personal web sites, and online personal polling web sites that are used to support conscious, willful, deliberate, repeated, and hostile behavior by one or more people with the intent to harm others.

Cyber-harassment generally refers to the same types of acts but by adults against other adults (National Conference of State Legislatures [NCSL], 2011; Vance, 2010). The NCSL suggests that cyber-harassment pertains to an adult who implements the use of email messages, text messages, instant messages, or blog entries to torment the victim (NCSL, 2011). The two concepts are similar in that the goal of each is to intimidate, threaten, humiliate, or cause emotional stress to the victim.

Several studies have explored cyberbullying or cyber-harassment among students and between adults in the workplace (e.g., Hinduja & Patchin, 2008, 2012; Patchin & Hinduja, 2010; Whitty & Carr, 2006; Ybarra & Mitchell, 2004), but few studies have examined email harassment of teachers by parents in educational settings. The limited amount of existing research suggests that cyber-harassment from parents is experienced by teachers both internationally and domestically. For instance, Matsui (2005) found that some Canadian educators had been victims of email harassment, although they were more likely to be targets of verbal harassment. Later surveys of U.K. educators suggest that 15% to 20% of respondents had experienced a form of cyber-harassment from parents via email, text messaging, or malicious websites during 2007-2011 (Association of Teachers and Lecturers [ATL], 2008, 2009; Smith, 2007; Williams, 2010). Moreover, in 2009, one in five survey participants knew of colleagues who had been cyberbullied and had not reported it (ATL, 2009). The findings also showed that cyber-harassment had affected their work by reducing their confidence as a teacher; some were forced to take sick leave due to stress, at least some of which could be attributed to cyberbullying.

Horowitz (2009) found that 45% of 1,831 elementary, middle, and high school Pennsylvania educators who completed an online survey had received emails that were perceived to be a form of harassment. The survey included 10 items used to measure what Horowitz described as "rude or uncomfortable" emails. Respondents were asked if they had received emails that (a) were annoying; (b) were embarrassing; (c) included offensive language; (d) were insulting; (e) were threatening; (f) were harmful, untrue, or cruel; (g) denigrated or defamed one's reputation; (h) were sexually explicit; or (i) were sexually suggestive. Respondents were also asked if they had received messages that are posted on the Internet (Horowitz, 2009).

Horowitz found that males, middle school educators, and educators in more affluent districts were significantly more likely to have received these emails than their colleagues in less affluent districts. Horowitz (2009) also determined that approximately one in three educators had received harassing emails from parents. Horowitz suggested that, with little training and/or no policies addressing harassing emails by parents, respondents were uncertain how to manage the situation when they did receive such emails.

Our hope is that this study will add to the baseline knowledge concerning cyber-harassment of teachers by parents of their students. We present a multivariate analysis of cyber-harassment of teachers by parents by testing five hypotheses.

First, although older individuals are becoming more involved with electronic technology, a larger percent of young people use email on a regular basis (Chou, Hunt, Beckjord, Moser, & Hesse, 2009; Jones & Fox, 2009). In addition, we believe that experienced educators who have been teaching for several years will be more likely to have established routines and approaches to attending to student issues that might result in reduced harassment from parents (Felter, 2001). Therefore, we hypothesize the following:

Hypothesis 1 (H1): Younger teachers and those teachers with less time in service in educational settings will be more likely to have experienced cyber-harassment and to perceive themselves more at risk of cyber-harassment than older teachers and those with more experience.

Second, studies have shown that schools with large enrollments tend to have less personal interaction between both teachers and students and teachers and parents (Blatchford, Bassett, & Brown, 2011; D. C. Gottfredson & DiPietro, 2011; Stewart, 2009). This general lack of individual interaction may result in parents using technology to communicate with and possibly cyber-harass teachers, especially if they feel as though their child is not receiving enough personal attention. Consequently, the second hypothesis is as follows:

Hypothesis 2 (H2): Teachers in schools with larger enrollments will be more likely to experience cyber-harassment and to perceive themselves more at risk of cyber-harassment than teachers in schools with smaller enrollments.

Victimization studies have repeatedly shown that, outside of sex crimes and domestic violence, the majority of crime victims are males (Morash, 2006; Sundaram, Helweg-Larsen, Larsen, & Bjerregaard, 2004). Furthermore,

Horowitz (2009) determined that male educators were significantly more likely to receive rude emails than their female counterparts. Despite lower risk of victimization, however, a large body of research demonstrates that females tend to have higher levels of fear of all types of crime than males (May et al., 2010; Covington & Taylor, 1991). Thus, we expect the following:

Hypothesis 3 (H3): Males will be more likely to experience cyber-harassment than females but females will be more likely to perceive themselves at risk of future cyber-harassment than their male counterparts.

Horowitz's (2009) findings also suggest that middle schoolteachers are more likely to have received rude emails than their counterparts at other levels. Generally, parents of elementary school students are also more active within the schools and have more one-on-one contact with teachers than middle and high school parents (Adams & Christenson, 2000). This increased contact may provide opportunities for parents and teachers to work out problems face-to-face, making it likely that

Hypothesis 4 (H4): Teachers from middle and high school levels will be more likely to experience cyber-harassment and perceive that they will experience cyber-harassment in the future than teachers from lower levels.

Finally, there is some evidence that negative interpersonal interactions may continue online. For example, bullying research suggests that many students who experienced traditional school bullying were also victims of online bullying (Ybarra, 2004; Ybarra, Mitchell, Wolak, & Finkelhor, 2006). If this pattern with students holds true for teachers as well, then,

Hypothesis 5 (H5): Teachers who perceive that their interaction with parents is more negative will be more likely to have experienced cyber-harassment and perceive themselves more likely to experience cyber-harassment in the future than their counterparts who perceive their interactions with parents to be more positive.

Method

Data Collection

The limited literature currently available on general parental aggression toward teachers required that we develop original items designed to help

understand the types, causes, and consequences of parental aggression toward teachers in the educational environment. We used a focus group of experienced educators, parents, and school administrators to develop the instrument used in this study. The development of that questionnaire has been previously described in detail (May et al., 2010). The data for this study were collected via the Internet from the electronic questionnaire created from focus group discussions with active K-12 teachers, parents, and administrators. Although electronic questionnaires may not yield representative results for surveys of the general public, valid, reliable electronic surveys involving members of organizations that have both access to the Internet and valid email addresses can be conducted with minimal issues of coverage (DeVoe et al., 2000).

To begin the data collection process, a letter was mailed to all Kentucky superintendents ($n = 176$) describing the purpose and methodology of the study and asking for the email addresses of all school principals in the district and permission to send an email to each principal asking for their help in administering the questionnaire. The initial letter was followed up with three mailings and a phone call. In the end, 161 (91.5%) superintendents agreed to allow their principals to participate. Most (73.3%) of the 15 districts that did not participate were small, with enrollments of less than 3,500 students.

Using an email distribution list of principals created from addresses provided by the superintendents, an informational letter was emailed to the participating principals describing the purpose of the survey and informing them about their role in the data collection. Approximately 1 month later, principals were sent an email containing the link to the web-based survey and were asked to forward the email to all the teachers in their school. Two follow-up emails (each 2 weeks after the previous email) were then sent to the principals, asking them to remind their teachers to participate in the survey if they had not done so already. The website was deactivated after approximately 6 weeks.

Because this effort focuses on cyber-harassment of teachers, we wanted to insure that we included only respondents whose primary role was a classroom teacher in the analyses. Respondents were asked to indicate their "job title." We removed all respondents that (a) did not complete that question or (b) indicated a job title other than teacher (e.g., counselor, librarian, principal, coach, school psychologist). After cleaning the data, the sample consisted of responses from 5,731 public schoolteachers.

Estimating an accurate response rate for this project is problematic. One strategy might have been to send a follow-up email to the school principals at the completion of the study to ask whether or not they forwarded the emails that we sent to them. Because we had no way of verifying that information, we chose not to take that additional step. In future studies, the additional

verification may help in estimating a more accurate response rate than the one presented here.

Because we did not verify if the principals forwarded the email or not, we estimate a conservative response rate here by assuming all principals forwarded each email they received from us. If each of the principals forwarded the email to all teachers in their school (an unlikely scenario, given our experience), then 33,106 teachers (the number of teachers in the 161 districts who agreed to participate in the research at the time) had the opportunity to complete the questionnaire. Because the sample under study here consists of 5,731 respondents, our response rate using that calculation strategy is 17.3%. This estimate is conservative, at best, as it assumes that (a) all principals in all districts whose superintendent cooperated were able and willing to forward the email containing the link to the web-based survey to all the teachers in their school and (b) all teachers in those schools received and read that email. Nevertheless, the low response rate is indicative of the literature suggesting that lower response rates generally result from online versus pen and paper survey administrations (Handwerk, Carson, & Blackwell, 2000; Matz, 1999; Sax, Gilmartin, & Bryant, 2003; Tomsic, Hendel, & Matross, 2000).

Demographic characteristics of teachers in the sample and school characteristics reported here are remarkably similar to the overall population of Kentucky teachers in terms of race, age, tenure, and gender of teachers; in addition, the size and levels of the schools at which teachers taught are also similar to population of Kentucky public schools, suggesting that non-response bias is not a serious issue (Dillman, 1991; Krosnick, 1999). Thus, although the findings presented here need to be taken in the context of this sample and are not immediately generalizable to the state as a whole, it is reasonable to expect that future research efforts with more representative samples would produce similar results.

Results

Independent Variables

Respondents in the sample were primarily female (81.3%) and White (96.4%); almost half (43.6%) were elementary teachers, while smaller percentages taught in middle (25.2%) and high (31.1%) schools. Respondents were evenly distributed across several age ($M = 39.56$), teacher experience ($M = 12.56$ years of experience as an educator), and enrollment ($M = 685.51$) categories. Most (71.9%) of the respondents taught in schools with enrollments of less than 1,000 students (M enrollment = 685.5 students).¹

Negative Parental Involvement was measured by asking respondents how they would describe their interaction with the parents of the children they

Table 1. Respondents' Real and Perceived Victimization Experiences.

At some point in my career, a parent of a child at my school has . . .	<i>n</i>	%
Sent numerous emails to harass me	422	7.4
Sent me an email threatening my job	367	7.1
Sent me an email threatening me with physical harm	22	0.4
How <i>likely</i> do you think it is that a parent will commit any of the following behaviors toward you during this school year?	<i>M</i>	<i>SD</i>
Send me an email threatening my job	2.48	2.19
Send me an email threatening me with physical harm	1.70	1.38

regularly taught. Responses were coded as (a) overwhelmingly positive (5.6%), (b) mostly positive (38.1%), (c) more positive than negative (32.0%), (d) about as positive as negative (15.7%), (e) more negative than positive (6.6%), (f) mostly negative (1.1%), and (g) overwhelmingly negative (0.3%).

Dependent Variables

The results presented in Table 1 reflect responses to questions regarding the prevalence of problematic behaviors that respondents had experienced *in their careers*. In this study, we define cyber-harassment through three separate variables. Respondents were asked to respond either yes (1) or no (0) to questions asking them whether a parent of a child at their school had ever sent them an email threatening their job, sent them an email threatening them with physical harm, or sent numerous emails to harass them. Less than 1 in 10 respondents (7.4%) reported having been harassed as a result of receiving numerous emails, while a similar percentage (7.1%) had received an email from a parent that threatened their job. Less than 1% (0.4%) had been threatened with physical harm via email. Respondents who had experienced any form of cyber-harassment in their career were coded (1), whereas those who had not been victimized by cyber-harassment were coded (0). Slightly less than half of those responding that a parent had sent numerous emails to harass them also responded that a parent had sent them an email threatening their job (45.0%), while only 12 of the 422 teachers that had a parent send them numerous emails to harass them had also received an email physically threatening them (2.8%). Thus, although not mutually exclusive groups, there were a number of respondents who received one of the forms of email harassment but not the other two. One in 10 respondents had experienced some form of cyber-harassment in their career.

Table 2. Logistic Regression Results Regressing Cyber-Harassment Victimization on Demographic and Contextual Variables.

Variable	B	SE	Wald	Exp(B)
Gender	-0.117	.118	0.991	0.889
Age	-0.021	.007	7.616**	0.980
School level	0.446	.109	16.915***	1.562
Tenure	0.012	.009	2.006	1.012
Enrollment	0.000	.000	21.701***	1.000
Parental interaction	0.313	.041	59.383***	1.367
χ^2 ; df	147.074; 6***			
-2log likelihood	3,376.258			
Nagelkerke R ²	.058			

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

Respondents were also asked (on a scale from 1 to 10 where 1 means not at all likely and 10 means very likely) to estimate the likelihood that parents would send them an email threatening their job or send them an email threatening them with physical harm in the next 12 months. Respondents perceived that there was a greater likelihood of a parent sending them an email threatening their job ($M = 2.48$) than an email threatening them with physical harm ($M = 1.70$). The low mean scores on each of the variables are encouraging because they indicate that teachers rarely receive harassing emails and are not particularly concerned about parents sending harassing emails in the future.

Multivariate analyses. To examine whether salient teacher and school characteristics constitute viable predictors for the cyber-harassment of teachers, we began by estimating a multivariate logistic regression model to examine predictors of cyber-harassment victimization among teachers. In Table 2, we regress whether the teachers had been victimized by cyber-harassment in their career on the respondent's sex (female = 1), age, school level (coded 1 for middle/high and 0 for elementary), the school's enrollment, the number of years the teacher had worked in the education field, and the question representing the respondent's perceptions of parental interaction.

The logistic regression model depicting the results of regressing the variable representing the respondent's experience with cyber-harassment on the relevant demographic and school characteristics is presented in Table 2. The results indicate that younger respondents, respondents teaching in middle or high school, respondents teaching in schools with larger enrollment, and respondents with the most negative perceptions of parental interaction at

Table 3. Multivariate Linear Regression Results Regressing Perceived Risk of Receiving Emails Threatening Job on Demographic and Contextual Variables.

Variable	B	SE	β	t
Gender	0.411	.073	.073	5.622***
Age	0.001	.004	.007	0.323
School level	0.099	.063	.023	1.580
Tenure	-0.005	.005	-.020	-0.975
Enrollment	0.000	.000	.038	2.758**
Parental interaction	0.536	.026	.263	20.407***
Victim of cyber-harassment	2.521	.085	.376	29.650***
R ²	.255			
F	234.853***			
df	4,800			

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

their school were significantly more likely than their counterparts to have experienced some form of cyber-harassment at some point in their careers. Neither gender nor years of experience had a statistically significant association with cyber-harassment victimization. The variables included in the model explained less than 6% of the variation in cyber-harassment victimization among the respondents in this sample.

The multivariate linear regression model depicting the results of regressing the variable representing the respondent's perceptions of their own likelihood of a parent sending them an email threatening their job in the upcoming school year on the relevant demographic and school characteristics is presented in Table 3. The results indicate that females, respondents from schools with larger enrollments, respondents with the most negative perceptions of parental interaction at their school, and respondents who had been victimized by cyber-harassment in their careers were significantly more likely than their counterparts to perceive that a parent would send them an email threatening their job in the next 12 months. Neither age nor the grade level at which the respondent taught had a statistically significant association with the perceived likelihood of receiving emails from parents threatening their jobs. The variables included in the model explained more than 25% of the variation in perceived risk of cyber-harassment among these respondents.

The multivariate linear regression model depicting the results of regressing the respondent's perceptions of their own likelihood of a parent sending them an email threatening them with physical harm in the upcoming school year on the relevant demographic and school characteristics is presented in

Table 4. Multivariate Linear Regression Results Regressing Perceived Risk of Receiving Numerous Emails to Threaten Physical Harm on Demographic and Contextual Variables.

Variable	B	SE	β	t
Gender	0.132	.050	.038	2.670**
Age	0.006	.003	.044	1.994*
School level	0.050	.043	.018	1.170
Tenure	-0.002	.003	-.012	-0.555
Enrollment	0.000	.000	.012	0.800
Parental interaction	0.306	.018	.243	17.224***
Victim of cyber-harassment	0.763	.058	.184	13.244***
R ²	.108			
F	83.120***			
df	4,797			

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

Table 4. The results indicate that females, younger respondents, respondents with the most negative perceptions of parental interaction at their school, and respondents who had been victimized by cyber-harassment in their careers were significantly more likely than their counterparts to perceive that a parent would send them emails threatening them with physical harm in the next 12 months. Neither the respondents' number of years that they had been teaching, school enrollment, nor the grade level at which the respondent taught had a statistically significant association with the perceived likelihood of receiving emails from parents threatening them with physical harm. The variables included in the model explained approximately 10% of the variation in perceived risk of cyber-harassment among these respondents.

Discussion

The experiences and perspectives of nearly 6,000 Kentucky teachers were assessed regarding the incidence and perceptions of the likelihood of cyber-harassment by parents. The results presented here indicate that 10% of teachers in the sample had received harassing or threatening emails from parents, and some educators believe that it is likely they will receive threatening emails from parents during the next year. Although the majority of respondents did not report having received harassing emails from parents, it is clear that this type of harassment from parents is a problem for some educators in the sample. In addition, there were some differences in the sample members

concerning those who reported having been victims of cyber-harassment and those who perceived themselves at risk of receiving threatening emails from parents during the next year. In fact, there was at least partial support for each of the five research hypotheses.

There was some support for the first hypothesis regarding age and the perceived likelihood of and experiences with cyber-harassment from parents. Although age was not a significant predictor of the perceived likelihood of receiving emails from parents threatening their jobs, younger teachers were more likely to have experienced cyber-harassment and to perceive themselves at risk of emails from parents threatening them with physical harm. The significant influence of age could be a result of younger teachers being more likely than their older counterparts to use email (Chou et al., 2009; Jones & Fox, 2009). This finding is particularly troubling given the nature of the cyber-harassment victimization variable. Because the respondents were reporting victimization of cyber-harassment by parents in their lifetime, intuitively, older teachers should be more likely to report victimization than their younger counterparts. The inverse relationship between age and victimization points to important gaps in pre-service education discussed below.

Findings yielded no support for the second part of H1, however, which was based on the idea that more experienced teachers will have developed strategies to better address student situations that might prompt harassment than their less experienced counterparts (Felter, 2001). Consequently, it was expected that there would be a negative relationship between years of experience and the dependent variables. Years of experience, however, did not emerge as a significant predictor in any of the multivariate models. This finding suggests that particular attributes of the teacher, rather than their tenure in education, have an important relationship with likelihood and risk of cyber-harassment from parents. These attributes are discussed in detail below.

Partial support also was found for the second hypothesis, which stated that teachers working at schools with larger enrollments will experience more cyber-harassment and perceive higher likelihoods of future cyber-harassment from parents. Results indicated that enrollment was, in fact, related in the predicted direction to whether or not sample members had been cyber-harassed by parents and their perceived likelihoods of receiving emails from parents threatening their jobs, but there was no relationship between school enrollment and perceived risk of receiving emails from parents threatening them with physical harm. The number of students enrolled in a school may contribute to cyber-harassment of teachers because the larger student-to-teacher ratios often found in these schools may result in less individualized attention from teachers and less interaction between parents and teachers in the course of the normal school year activities (Blatchford et al., 2011; D. C.

Gottfredson & DiPietro, 2011; Stewart, 2009). Parents who feel their child is not receiving the treatment or attention they expect might be more likely to cyber-harass their teachers. Furthermore, research is needed in this area to examine this relationship.

Similarly, there was no support for the third hypothesis, which suggested that male teachers will be more likely to experience cyber-harassment than females. Although there is no research of which we are aware that would suggest gender patterns in victimization specifically in this area, males are more likely to be victimized by most types of crime (Morash, 2006; Sundaram et al., 2004), leading us to believe they would be more likely to be the victims of cyber-harassment. Nonetheless, results show that there is no significant difference in the level of cyber-harassment for male and female educators.

As predicted in the second part of H3, however, gender was a significant predictor regarding perceived risk of cyber-harassment by parents in terms of emails threatening their jobs and physical harm. Females were, in fact, more likely to perceive themselves at risk of future cyber-harassment than their male counterparts. This finding is not unusual, as fear of crime research has long held that females are more fearful of crime and have higher levels of perceived risk than males (May et al., 2010; Covington & Taylor, 1991).

H4 stated that teachers from middle and high school levels will be more likely to experience cyber-harassment and perceive that they will experience cyber-harassment in the future than teachers from lower levels. Although grade level was not significantly related to the perceived likelihood of future cyber-harassment, findings indicate that middle and high schoolteachers were significantly more likely than elementary teachers to have been victims of cyber-harassment from parents. In general, parents are more likely to attend parent-teacher conferences, more likely to volunteer at the school, and more likely to have a personal relationship with teachers at the elementary levels (Adams & Christenson, 2000). This personal interaction should reduce the likelihood of cyber-harassment and make elementary teachers less likely to be victimized by cyber-harassment than their middle and high school counterparts.

The last hypothesis was that teachers who perceive that their interaction with parents is more negative will be more likely to have experienced cyber-harassment and perceive themselves more likely to experience cyber-harassment in the future than their counterparts who perceive their interactions with parents to be more positive. Results of the analyses produced full support for this hypothesis; the variable representing perceptions of negative parental interaction was the only variable that emerged as a significant predictor of cyber-harassment in all three models. Teachers who classified their interactions with parents at school on the negative side of the scale were more

likely to have experienced and to expect cyber-harassment from parents. Consequently, it is important for educators and school administrators to make parent–teacher interactions as positive as possible. Suggestions for educators and administrators to help in this area are discussed in detail below.

Conclusion and Policy Implications

This exploratory study has offered some insight into the levels, sources, and perceived likelihood of parental email harassment experienced by Kentucky teachers. There are, however, some limitations to this study that limit the generalizability of these findings and should be addressed in future research.

First, as noted earlier, data limitations prevent us from making generalizations to the larger population with statistical certainty. A glaring example of this is the teacher's race. Practically all (96%) of the teachers in this sample were White, precluding us from examining this variable with any degree of confidence, even though the race of the teacher (and often the mismatch between the teacher's race and their students' race) is an important element in any consideration of educational settings (Hallinan, 2008; Renzulli, Parrott, & Beattie, 2011). Ideally, future research will utilize probability samples with more diverse groups of respondents so that results can be generalized to the larger population of educators.

Second, most of the variables used in this study are relatively static; in addition, the relatively low levels of explained variation in the multivariate models are indicative that some important independent variables are missing from the models. Ideally, future studies will incorporate dynamic predictors into the models so that significant findings can be used to recommend strategies to reduce cyber-harassment of teachers by parents.

Third, the outcome variables in this research were limited to cyber-harassment via email. Today, email is only one of the many techniques individuals may use to cyber-harass one another. Future research should measure cyber-harassment through email as well as other forms of electronic messaging and social media or networking sites.

Finally, these data are cross-sectional rather than longitudinal. Thus, any inferences we make about the direction of the relationships uncovered here (e.g., it is possible that teachers who experience cyber-harassment in turn perceive their interactions with parents to be negative rather than vice versa, as we suggest) are based on our own experiences and theoretical understanding of the relationships. Longitudinal research is needed to clearly understand the directions of these relationships.

Nevertheless, within the limitations of this sample, we believe the findings presented here have important implications for school administrators and

pre-service educational institutions. Perhaps the most important finding from this research is that respondents who perceive parental interaction as most negative are more likely to be cyber-harassed and perceive themselves more likely to be cyber-harassed in the future. This finding points to the likelihood of a “self-fulfilling prophecy” for parental interaction brought about by selective observation of teachers who focus on negative interactions with parents. Those teachers who perceive interactions with parents to be most negative may do so because of the lens through which they are viewing parental interaction. These teachers may have heard horror stories of how parents will treat them when they become teachers in K-12 settings from their acquaintances or, perhaps more damaging, their university professors with negative experiences in K-12 environments. Consequently, they approach their job with a negative perception of parents; this perception is fulfilled when they invariably have a negative interaction with parents. Their reaction to this negative interaction may make them more likely to be victimized by cyber-harassment; this paradigm appears to make them more likely to perceive themselves as likely of future victimization as well.

If the situation is as described above, there are two potential strategies that may be effective. First, new teachers are often paired with a mentor with experience in the subject they are teaching. An important consideration for the choice of a mentor should be their outlook regarding parents in the educational setting. School administrators should choose those teachers who are most adept at dealing with parents and whose attitude toward parents and successful history with parents can be used as a model for new teachers to emulate as they begin their educational careers. A positive attitude about parental interaction will go a long way toward positive parental relationships, thus decreasing the likelihood of both negative interactions with parents and cyber-harassment from parents.

A second strategy that may help in this area involves the type of training students receive while in the university setting. Proper communication between teachers and parents, whether about general policies or about a particular child’s progress, is extremely important. Results not presented here indicate that many teachers lack proper training in communicating with parents (and it is likely that parents lack training in communicating with teachers as well). Younger teachers were also more likely to be victimized by cyber-harassment. Both anecdotal and scientific evidence suggest that young people are becoming more effective with digital communication and less effective with face-to-face communication. These factors stress the need for formal training in communication techniques that train teachers to reach out to parents in ways that prevent them from becoming aggressive or may help to de-escalate a parent who does become aggressive. Therefore, it is highly

recommended that educators receive specialized training courses and/or refreshers in communicating with parents as part of the continuing education or in-service training.

Similarly, parents are often not provided with information on appropriate communication with teachers and thus may be unaware of the proper procedures to use for dealing with concerns about their children. Thus, it is imperative that parents learn these types of rules and guidelines on communicating with teachers and expressing their concerns when there is a problem. This information should be distributed to parents at every opportunity, starting as early as possible. For example, a review of the policies could take place during orientation at the beginning of each school year, parents should be given the policies in hard copy, policies should be available online, and policies should be revisited from time to time in media such as school newsletters.

Finally, an equally important finding from this research regards the relationship between past victimization experience and perceptions of the likelihood of future victimization experience. Respondents who had been victimized by cyber-harassment at some point in their career were more likely to perceive they would be victimized by cyber-harassment in the future. This finding points to important strategies for school administrators as well. School administrators should work to insure open communication with teachers, so that when teachers are victimized by cyber-harassment, the school administrator can serve as a resource for that teacher. In addition, school administrators should insure that there are clear policies for dealing with cyber-harassment and both teachers and parents are aware of these policies. Administrators should work to insure teachers and parents that cyber-harassment is unacceptable behavior but, more importantly, it is also a rare occurrence and, when it occurs, will be addressed swiftly to protect the teacher from future occurrences of these behaviors. This assurance may reduce the likelihood of future cyber-harassment; it will almost certainly increase the confidence of the teacher that this behavior was a one-time circumstance and is not likely to occur again in the future.

Given the pervasive developments in technology and the increase in the number of people using electronic communication, it is possible that cyber-harassment of teachers by parents will become more prevalent. Developing an understanding of the types, extent, and sources of cyber-harassment of teachers by parents can lead to policy implications that will help decrease the likelihood of cyber-harassment of teachers. Policies should address how to prevent cyber-harassment and how to properly respond to cyber-harassment when it does occur. Such practices should improve conditions for individual teachers as well as the educational processes with which they are involved.

Authors' Note

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Note

1. To insure anonymity, we assured the teachers that we had no way of identifying the schools at which the teachers were employed. Thus, we were unable to link respondents to the schools in which they taught, and could only use self-reports of school characteristics given by the respondents. The level (elementary, middle, or high) and enrollment of the school in which the teachers taught are the only school-level variables for which we have data and are thus included in the models as control variables.

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