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Prevalence of Parental Violence Toward Teachers: A Meta-Analysis

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A growing literature on parental violence toward teachers has examined the prevalence of these incidents, yet there is considerable variation across studies. There is a need for a systematic and comprehensive review to assess the extent of parent-perpetrated violence toward teachers. Using a meta-analytic approach, we examined the prevalence of violence directed against teachers by parents and how these rates vary by reporting timeframe and type of violence. We identified 5,340 articles through our initial screening process, and our final analysis included eight studies that met criteria for this meta-analysis. Our findings show that teachers are more likely to experience non-physical forms of violence as compared to physical violence and that rates are lower as the severity and intrusiveness of the violent act increases. Implications for research and practice are discussed.

Keywords: school violence; teachers; victimization; bullying; parents online behaviors

Violence directed against teachers has been linked to a range of negative outcomes for teachers including compromised mental health (e.g., depression, anxiety, fatigue, problems sleeping), stress, negative affect, burnout, and turnover (e.g., quitting one's job, seeking a school transfer; Dzuka & Dalbert, 2007; Galandet al., 2007; Reddy et al., 2018). These findings are even more concerning as they have strong implications for students. Research indicates that teachers are one of most important contributors to student achievement, and the well-being of teachers has been linked to student well-being and achievement (Harding et al., 2019; Rivkin et al., 2005). Additionally, it is esti-

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mated that between 17% and as high as 50% of new teachers leave the profession within the first five years of teaching, often due to teaching conditions (Bass et al., 2016; Gray & Taie, 2015; Ingersoll & Merrill, 2013; Ronfeldt et al., 2013), which also poses unique challenges for students and schools. Collectively, the problem of violence directed against teachers should raise concern for policymakers and practitioners seeking to retain teachers in the profession and improve teacher and student outcomes.

Prevalence of Teacher-Directed Violence

The research on school violence has primarily focused on students as both victims and perpetrators (Longobardi, Settanni, Prino, & Gastaldi, 2018; Longobardi et al., 2019). Over the past decade, studies have emerged underscoring the high prevalence of teacher-directed violence globally and these outcomes should raise alarm. In the United States, state-level studies found that 8% of teachers reported being physically assaulted, and 39% of school staff reported non-physical victimization such as verbal abuse, threats, and sexual harassment (Gerberich et al., 2011; Tiesman et al., 2013). Moreover, a national U.S. study, consisting of a non-probalistic sample, found that 80% of nearly 3,000 teachers responding to an anonymous survey reported experiencing at least one of eleven victimization types, across three domains (i.e., property, physical, harassment), within the current or past school year (McMahon et al., 2014). Internationally, a Canadian study revealed that 80% of teachers had experienced school violence during their career, which included covert (e.g., personal insults and name calling) and overt violence (e.g., being threatened with physical violence) (Wilson et al., 2011), and a Slovakian study found that 49% of 364 teachers reported at least one experience with violence (e.g., abusive language, physical threats or assaults) in the past 30 days (Dzuka & Dalbert, 2007). In South Africa, 62% of 153 teachers surveyed reported being verbally bullied (e.g., hurtful name calling; sexual comments) and approximately one-third reported being physically bullied (e.g., physically assaulted or hurt, property stolen or damaged; Woudstra et al., 2018). In Spain, 50% of 1,223 secondary teachers surveyed reported feeling afraid of suffering physical aggression from their students (FETE-UGT, 2010), and 46% of students indicated they witnessed violent actions toward teachers by classmates (Gomez, 2000). AQ2

Despite the growing body of research conducted internationally, it is difficult to compare studies across settings, as different measures, methodologies, types of violence, and timeframes have been used (Reddy et al., 2018). Considering these challenges, systematic reviews can facilitate uncovering patterns across studies. Longobardi, Badenes-Ribera, Fabris, Martinez, and McMahon, (2018) conducted the first meta-analytic review of teacher directed violence, which focuses on students and consisted of 24 international studies. This analysis found obscene gestures (44%) and obscene remarks (29%) to be the most prevalent types of student-generated violence as compared to physical violence (3%). Collectively, these studies have provided supporting evidence of the high prevalence of teacher-directed violence.

Teacher-Directed Violence Perpetrated by Parents

Although we have gained insight into teacher-directed violence over the past decade, most of these studies have focused on student perpetrators and less is known about how teachers experience violence generated by parents. In fact, some evidence suggests that the prevalence of violence generated by parents toward teachers has increased (Kõiv, 2015). Research is needed that can inform the broader literature by better understanding parent-

perpetrated teacher victimization. This research can provide insight to develop strategies that strengthen school-parent relations and school-based interventions, encompassing multiple stakeholders' experiences and perspectives.

Parent-School Relations. In many ways, research examining parent-generated violence against teachers is overdue. Research has documented the benefits of parental involvement (Gonzalez-DeHass et al., 2005). However, previous work has documented adversarial school-parent relations, and it is reasonable to expect that such relations may result in teacher victimization (Anderson-Levitt, 1989; Attanucci, 2004; Lasky, 2000; Lawson, 2003). Some teachers report being afraid of students' parents and parents can serve as a significant source of stress for teachers, which has been cited as a contributing factor to new teachers leaving the profession (Fisher & Kettle, 2003; Gastaldi et al., 2015; Smithers & Robinson, 2003).

Other work has highlighted some of the central issues that underlie parent–teacher conflict. Some work suggests that teacher–parent conflict may be prompted by communication challenges. In a case study conducted by Tatto and colleagues (2001) parents reported disappointment that the schools did not inform them about student achievement, school rules and regulations, goals, and retention policies. Additionally, school responses to student discipline appear to be a central point of parent–teacher conflict—a finding that is not surprising considering that teacher victimization often occurs within the context of teachers disciplining students (Tiesman et al., 2013). More specifically, parents have been found to report concern over unfairness and inconsistent application of school discipline practices, and it is possible that teachers' use of discipline may prompt some parents to become aggressive toward teachers (May et al., 2010; Tatto et al., 2001).

Parent-Generated Victimization. Given the scope of teacher–parent tensions, it is conceivable that these dynamics may result in teachers being victimized by parents. However, very few studies have specifically examined parent-generated violence, with most focusing on non-physical parent-generated violence. Research by McMahon and colleagues (2014) suggests that teachers commonly experience harassment from parents, most notably intimidation, obscene remarks, and verbal threats. For example, among teachers who reported being intimidated during the past two years, 44% reported being specifically intimidated by a parent. Further, among teachers who reported experiencing obscene remarks and verbal threats, about a quarter reported that these behaviors were generated by parents (29% and 26% respectively). Other work has revealed similar findings concerning non-physical forms of parent-generated violence. In a study of nearly 6,000 respondents in the state of Kentucky, May and colleagues (2010) found that verbal aggression was the most reported type of victimization generated by parents. Teachers reported parents' shouting, profanity, and verbal threats (36%, 28%, and 15% respectively) as common forms of aggression. Further, studies conducted outside of the United States have shown similar patterns. For example, a study conducted in Estonia, which examined the prevalence of teacher-directed bullying, found verbal forms of aggression to be most common (Kõiv, 2015). These behaviors included offensive remarks (28%), insults (13%) and shouting (10%).

While non-physical aggression is more prevalent, research has also documented concerning rates of physical violence. For example, McMahon and colleagues (2014), using a wider range of physical types of victimization, found relatively high levels of parent-generated physical violence—including having a weapon pulled (4.4%), objects thrown (1.6%), physical attacks not resulting in a medical visit (1.5%), and physical attacks resulting in a medical visit (1.3%). Similarly, May and colleagues (2010) found that 1.7% of teachers reported physical violence. Internationally, 1.2% of teachers in Estonia reported

being physically attacked by a parent (Kõiv, 2015). Overall, while these rates are low in comparison to non-physical aggression, physical aggression is likely to have costly consequences in terms of emotional and physical well-being, as well as associated medical and legal costs.

Methodological Considerations in Parent-Generated Violence

Collectively, an emerging body of research has documented the prevalence of parent-generated violence directed against teachers. These studies suggest that non-physical forms of aggression (e.g., verbally aggressive remarks) are most common. However, it is necessary to note that these studies have relied on a wide-range of samples and methodologies. For example, studies have been conducted in different countries (e.g., United States, Canada, Estonia, Slovakia, Spain, South Africa), some of which have been national in scope whereas others have been conducted at the province or state level. Different prevalence rates may reflect regional or cultural differences. Further, studies have relied on different definitions and measurements such as by broadly referring to physical attacks, or in other circumstances, examining specific behaviors (e.g., being hit or pushed; Longobardi et al., 2018). Studies have also relied on different timeframes, which can equivocate prevalence AQ3
rates of parent-generated violence—particularly when comparing across studies. Thus, while studies examining parent violence toward teachers highlight concerns, the wide variation in samples and methodologies obscures the extent and nature of the problem. Research is needed that can produce more robust prevalence estimates of parent-generated teacher-directed violence.

Current Study

The purpose of the current study is to examine the prevalence of parent-generated violence directed against teachers using a meta-analytic approach. Whereas prior meta-analyses have focused on student-generated violence directed against teachers (Longobardi et al., 2018), this study extends our understanding of teacher-directed violence by assessing parent-generated violence across studies. We draw from international studies and produce pooled estimates of parent-generated teacher victimization. In addition, we account for methodological variations across studies, and toward this end, we examine prevalence rates of teacher-directed violence by timeframe (i.e., within the last year or career) and violence type.

METHOD

We carried out a systematic review of the research literature and a meta-analysis in accordance with the guidelines recently proposed by the American Psychological Association Publications and Communications Board Task Force (Appelbaum et al., 2018, Table 9, AQ4
pp. 21–23).

Study Selection Criteria

In order to be included into this systematic review and meta-analysis, the studies had to fulfill the following criteria: (1) published in a peer-review journal; (2) include quantitative empirical original research: (3) focus on any of type of parent-generated violence directed

toward teachers (4) written in English, Italian or Spanish language; and (5) report statistical data enabling effect sizes to be computed. No restrictions were included concerning the year of publication or cultural context (e.g., country where the study was conducted). Review articles and studies consisting of qualitative designs were excluded, as were studies where correlational data were unavailable (in text or from author) to calculate effect sizes.

Search Strategy

A literature search was conducted between March 2016 and August 2018 by two independent reviewers to identify studies investigating the prevalence of parental violence against teacher. All discrepancies between the independent reviewers were resolved by discussion. The PubMed; Scopus; Web of Science, and Google Scholar electronic databases were searched. The search was performed using a combination *"parents,"* and the following keywords: "violence," "bullying," "teachers," "against teachers," "towards teachers," and "victimized teachers." Additionally, the reference section of all included studies and previous literature reviews were checked for their possible eligibility. Finally, experts in the field of violence against teachers were asked to identify additional studies. Figure 1 presents a flow chart describing the screening and selection process.

A total of 5,340 articles identified using this search strategy were reviewed based upon the study title and abstract. We identified 114 articles, and after removing duplicates, the number of articles was reduced to 84. Therefore, a total of 84 preselected articles were reviewed in full-text. The review of these articles led us to exclude 72 of them, as they did not meet the inclusion criteria. This process resulted in twelve articles that fulfilled the selection criteria. All twelve of these articles were written in English and published in a peer-reviewed journal between 2006 and 2015.

Following closer review of these twelve articles, five articles were excluded from the meta-analysis for several reasons. Two articles were removed due to not reporting on the prevalence of violence against teachers considered as a group separated within the study of other educator workers (Tiesman et al., 2014; Tiesman et al., 2013), two articles were eliminated for not reporting on who perpetrated violence against teachers (Mooij, 2011; Russo et al., 2008), and one article was removed because it used the same dataset as a previous study (Martinez et al., 2016). Ultimately, seven articles were included in this meta-analysis, producing eight independent estimations of the prevalence of parent-generated violence against teachers (Note: The study by Kõiv, 2015 provided two independent samples).

Coding and Reliability

Two independent coders extracted study information, design and measurement information (e.g., sampling method, location), and sample characteristics (e.g., gender, age, years teaching, etc.). If data from the same sample appeared in multiple manuscripts, the most comprehensive report was used while supplementing missing data from the other report(s).

In addition, the methodological quality of the studies was assessed by applying an 9-item checklist (Longobardi et al., 2018). The items that composed the methodological quality scale were: (1) using probabilistic sampling procedure; (2) specifying eligibility criteria and specifying exclusion criteria; (3) specifying timing of data collection; (4) specifying methodology detail used; (5) using valid and reliable measures, (6) clarifying types of violence assessed with an explicit statement of whether the types of violence

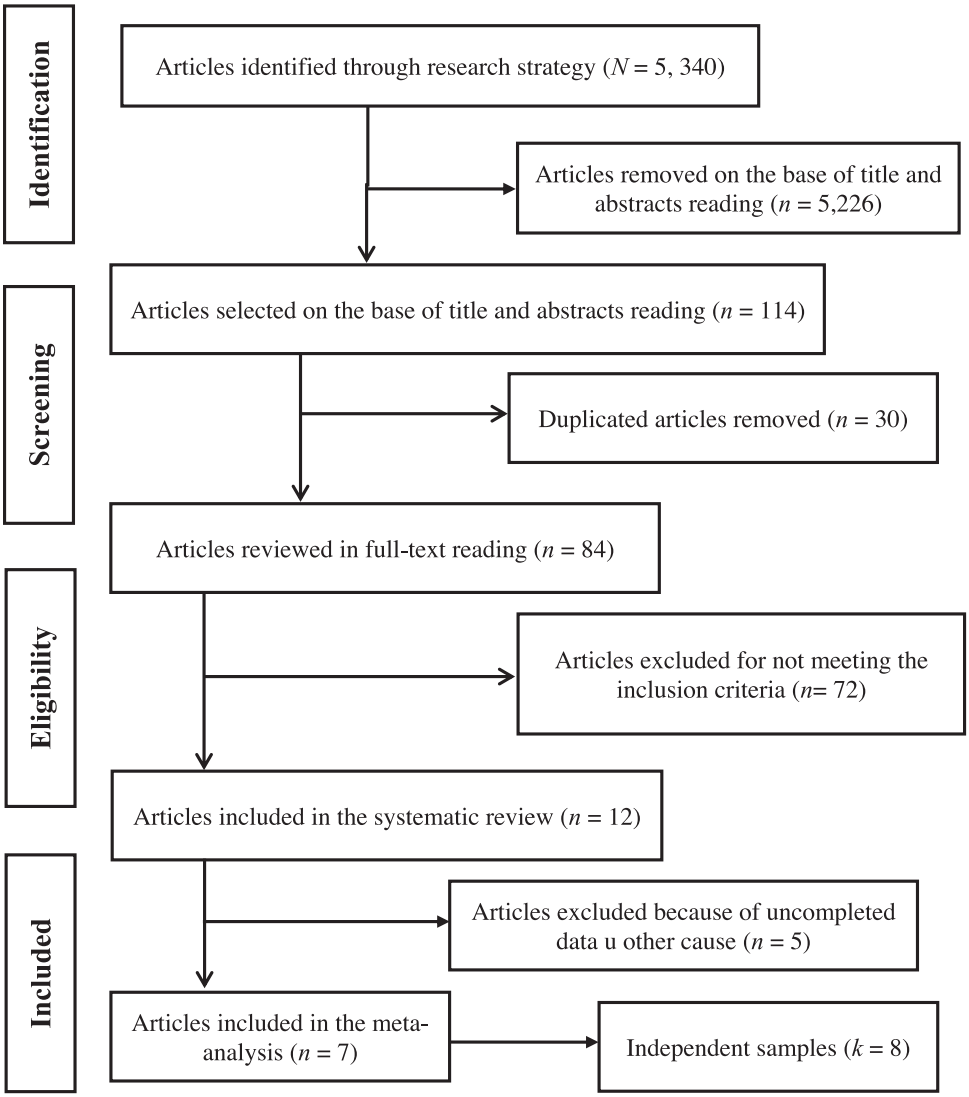


FIGURE 1. Flowchart of select process of the studies included in the meta-analysis of the prevalence of parental violence toward teachers.

include physical, sexual, and/or emotional violence (e.g., does not simply rely on terms such as "abusive" or "violent" to define a behavior); (7) including clear, detailed definitions of the types of violence assessed; (8) conducting appropriate statistical analyses, and (9) drawing appropriate conclusions based on the data. Each item was scored as 1 when the study met the criteria, and as 0 otherwise. A total quality score (TQS) was also calculated for each study by summing all the corresponding quality item scores (range: 0–9 with a higher score indicating a higher overall quality).

One psychology doctoral candidate and one psychology PhD served as the independent raters. Kappa coefficients and intraclass correlations were calculated to assess the

reliability between the two raters. Interrater reliability was high, with a mean intraclass correlation of .98 (SD = 0.02), ranging from .94 to 1 for continuous variables, and with kappa coefficients of 1 for qualitative variables. Discrepancies between the raters were resolved by consensus.

Computing Effect Sizes

The prevalence of violence directed against teachers served as the effect measure of interest. In the studies where the prevalence was not directly reported, it was calculated by dividing the number of participants who reported a specific behavioral outcome by the total number of participants in the sample.

Consistent with standard meta-analytic methods (Borenstein et al., 2009), for each study, the ES (proportions) were translated to logits and used in all analyses. Once the statistical analyses were conducted, results from the analyses (using logits) were then back translated to the proportions (along with corresponding confidence intervals) to allow for easier interpretation.

Statistical Analysis

Separate meta-analyses were then conducted with separate effect sizes calculated for each different type of violence (physical attack, offensive remarks, intimidation, and other forms of violence). To accommodate the variability shown by the effect sizes, a random-effects model was assumed (Borenstein et al., 2009; Sánchez-Meca & Marín-Martínez, 2008). A pooled prevalence and its corresponding 95% confidence interval (CI) were calculated; CIs indicate the degrees of precision as well as the significance of the mean (logit) effect size. Forest plots were constructed to represent the individual and pooled effect size estimates, with their 95% CIs, and to allow visual inspection for study heterogeneity. When only two or three studies were available to examine a given construct, the pooled prevalence was calculated to improve the score estimation and provide a CI, but forest plots were not constructed.

Both Cochran's Q-statistic and the I2 index were calculated to assess the consistency of the effect sizes (Borenstein et al., 2009; Huedo-Medina et al., 2006). A Q-statistic with $p <$ .05 was indicative of heterogeneity among the effect sizes. The degree of this heterogeneity was estimated using the I2 index. I2 values of around 25%, 50%, and 75% denoted low, moderate, and large heterogeneity, respectively (Higgins & Thompson, 2002).

Finally, the Egger test was used to assess publication bias as a potential threat to the validity of the pooled prevalence (Sterne & Egger, 2005). It is an unweighted simple regression taking the precision of each study as the independent variable (precision being defined as the inverse of the standard error of each effect size) and the effect size divided by its standard error as the dependent variable. A nonstatistically significant result of the t test for the hypothesis of an intercept equal to zero suggests that publication bias is not a threat to the validity of the pooled effect (Sterne & Egger, 2005). When the meta-analysis only included three or fewer studies, bias publication could not be assessed due to the small number of studies and high heterogeneity between effect sizes across studies (Sterne & Egger, 2005; Sterne et al., 2000; Thornton & Lee, 2000).

All statistical tests were interpreted assuming a significance level of 5% ($p < .05$), using two-tailed tests. The statistical analyses were performed with Comprehensive Meta-analysis software program, version 3.0 (Borenstein et al., 2014).

RESULTS

Study Characteristics

Descriptive characteristics of the articles included (n = 7), yielding a total of eight studies or independent samples, are presented in Table 1. Overall, most of the studies used a convenience sample and a cross-sectional design. Three studies used a probabilistic sample (Kõiv, 2011, 2015 study 1, 2015 study 2). Four studies were conducted in United States of America (USA), three in Estonia, and one in Turkey.

The eight independent samples included 17,693 participants (range = 341 and 5,971 participants). Most samples consisted of females (ranging from 52.8% to 85.6%). The mean age ranged from 39.6 (Foley et al., 2015) to 47 (Levin et al., 2006). Nevertheless, the majority of studies did not provide information regarding mean years teaching, age, ethnicity, sexual orientation, or other sociodemographic characteristics. Finally, the studies used different violence definitions, measurement instruments (primarily, ad hoc questionnaire), and recall periods (e.g., current year, past 6 months, past year, or career).

Teacher-Directed Violence by Timeframe and Type: Overall Effect Sizes

Studies in our analysis varied in terms of timeframe used to assess teacher victimization and violence type. Based on these variations, we grouped studies to assess different time periods (i.e., within current or past year and during career) and examined patterns across violence type where possible. Therefore, each meta-analysis included a different number of studies, ranging from two studies to four studies.

Teacher-Directed Violence Within the Current or Past Year. Four studies reported violence occurring across various timeframes within the previous year. For example, studies included 6 month, and current or past year as timeframes. Figure 2 shows forest plots for each meta-analysis of the pooled prevalence for each violence type experienced by teachers and perpetrated by parents within last year. The prevalence of offensive remark victimizations, occurring at least once within the last year, ranged from 9.1% to 18.2%, with a pooled prevalence of 14.9 % (95% CI = 9.3, 23.1; $Q(3) = 99.30$, $p < .0001$, $I^2 = 97\%$; $k = 4$); intimidation ranged from 1.6% to 19.8%, with a pooled prevalence of 5.8% (95% CI = 2.3, 14; $Q(3) = 141.14$, $p < .0001$, $I^2 = 97.9\%$; $k = 4$); and physical attacks ranged from 0.1% to 1%, with a pooled prevalence of 0.8% (95% CI = 0.4, 1.7; $Q(3) = 6.47$, $p = .091$, $I^2 = 53.6\%$; $k = 4$).

On the other hand, three studies conducted by Kõiv (2011, 2015 study 1, 2015 study 2) in Estonia reported on the prevalence of teachers who had been victimized often or very often on other types of violence perpetrated by parents. In these cases, the prevalence of victimization for slander ranged from 5.7% to 14.2%, with a pooled prevalence of 8.7% (95% CI = 4.9, 14.9; $Q(2) = 25.91$, $p < .0001$, $I^2 = 92.3\%$; $k = 3$), shouting ranged from 2.6% to 10.5%, with a pooled prevalence of 4.2% (95% CI = 1.4, 11.9; $Q(2) = 42.27$, $p < .0001$, $I^2 = 95.3\%$; $k = 3$); insults ranged from 1.9% to 13.6%, with a pooled prevalence of 3.8% (95% CI = 0.8, 16.6; $Q(2) = 72.68$, $p < .0001$, $I^2 = 97.3\%$; $k = 3$); public humiliations ranged from 0.6% to 12.3%, with a pooled prevalence of 2.4% (95% CI = 0.3, 15.7; $Q(2) = 65.99$, $p < .0001$, $I^2 = 97\%$; $k = 3$); accusation regarding lack of effort ranged from 0.3% to 6.8%, with a pooled prevalence of 1.7 % (95% CI = 0.4, 7.7; $Q(2) = 31.14$, $p < .0001$, $I^2 = 93.4\%$; $k = 3$); physical isolation ranged from 1% to 2.5%, with a pooled prevalence of 1.4% (95% CI = 0.7, 2.8; $Q(2) = 5.69$, $p = .058$, $I^2 = 64.8\%$; $k = 3$); belittling opinion(s) ranged from 0 % to 6.2%, with a pooled prevalence of 1.2% (95% CI = 0.2, 7.5, $Q(2)$

TABLE 1. Characteristics of the Included Studies

Study/ Location	Sampling method	*N*	Mean age	% female	Mean years teaching	Setting	Intrument	Type of violence	Recall period	TQS
Foley et al., 2015 USA	Convenience	5731	39.6	81.3	12.56	K-12	Ad hoc questionnaire	Cyber-harassment	During the career	7
Kõiv, 2011 Estonia	Probabilistic	613	43	85.6	NR	Basic schools and gimnasium	*Ad hoc* questionnaire based on typology of workplace bulling (Rayner & Hoel, 1997	Offensive remarks Physical attack Intimidation Others	Last 6 months	5
Kõiv, 2015 Study 1 Estonia	Probabilsitic	573	42.9	85.5	NR	Basic schools and gimnasium	*Ad hoc* questionnaire based on typology of workplace bulling (Rayner & Hoel, 1997)	Offensive remarks Physical attack Intimidation Others	Last 6 months	7

(*Continued*)

TABLE 1. Characteristics of the Included Studies (*Continued*)

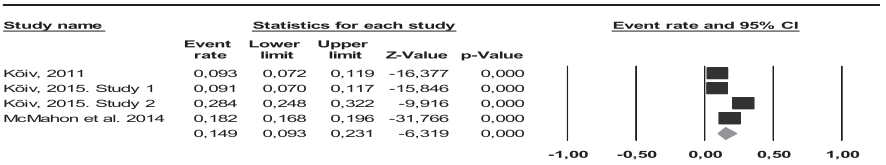
Study/ Location	Sampling method	*N*	Mean age	% female	Mean years teaching	Setting	Intrument	Type of violence	Recall period	TQS
Kõiv, 2015 Study 2 Estonia	Probabilsitic	564	43.8	84.4	NR	Basic schools and gimnasium	*Ad hoc* questionnaire based on typology of workplace bulling (Rayner & Hoel, 1997)	Offensive remarks Physical attack Intimidation Others	Last 6 months	7
Levin et al., 2006 USA	Convenience	341	Mdn:47 Range:21–67	79	9.6 Range: 0–41	NR	Report sources: employee health, security, personnel department records, and management vendor	Assault injuries (verbal acts, threats, physical acts)	3 years	4

TABLE 1. Characteristics of the Included Studies (*Continued*)

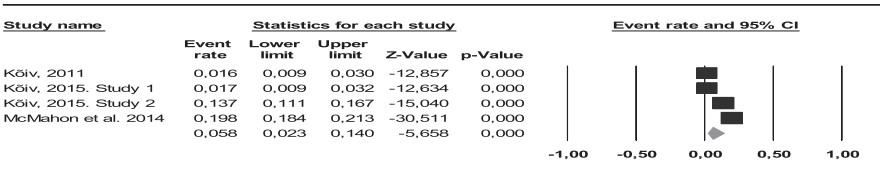
Study/ Location	Sampling method	*N*	Mean age	% female	Mean years teaching	Setting	Intrument	Type of violence	Recall period	TQS
May et al., 2010 USA	Convenience	5971	41.6 Range:21–75	81.6	12.7 Range:0–43	Elementary (43.5) Middle (25.1) High (31.2)	Ad hoc questionnaire	Verbal aggression, Physical attack, Cyber-harassment, others	During the career	
McMahon et al., 2014 USA	Convenience	2998	46.5	83.5	16.90	K-12	Ad hoc questionnaire APA CVDATTF	Obscene remarks Physical attack Intimidation Cyber-harassment Others	Curent or last year	5
Ozdemir, 2012 Turkey	Convenience	902	>more than 30 years (71.6%)	52.8	NR	Elementary schools (grades 6–8) and Secondary Schools (grades 9–12)	Ad hoc questionnaire	Emotional, verbal, physical and sexual violence	During the career	5

Note. TQS = total quality score. NR = not reported. > majority; Mdn = median; APA CVDATTF = APA classroom violence directed against teachers task force (McMahon et al., 2014).

A) Prevalence of Offensive Remarks toward Teachers



B) Prevalence of Intimidation toward Teachers



C) Prevalence of Physical Attack toward Teachers

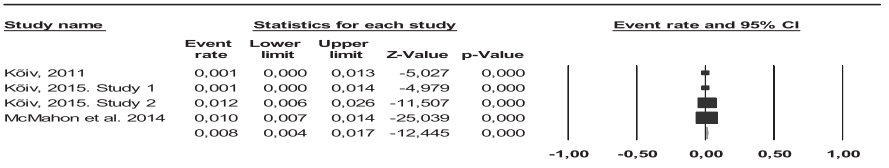


FIGURE 2. Forest plots of the pooled prevalence of violence toward teachers from parents last year/current year: A) pooled prevalence of offensive remarks against teachers ($k = 4$); B) pooled prevalence of intimidation against teachers ($k = 4$); C) pooled prevalence of physical attack against teachers ($k = 4$).

= 25.43, $p < .0001$, $I^2 = 92.1\%$; $k = 3$); name-calling ranged from 0.3% to 1.9%, with a pooled prevalence of 0.6% (95% CI = 0.2, 2.6; $Q(2) = 9.09$, $p = .011$, $I^2 = 78\%$; $k = 3$); and devaluation ranged from 0.3% to 1.3%, with a pooled prevalence of 0.6% (95% CI = 0.2, 1.7; $Q(2) = 5.07$, $p = .079$, $I^2 = 60.5\%$; $k = 3$).

Heterogeneity was evident across all meta-analyses, with I^2 ranging between 53.63% and 97.9%. However, due to the small number of studies, it was not possible to perform moderator variables analyses to explain the variability of effect sizes noted.

Teacher-Directed Violence Over the Course of Career. Four studies examined the violence directed against teachers throughout their career (Foley et al., 2015; Levin et al., 2006; May et al., 2010; Ozdemir, 2012). These studies also used different definitions of violence and different measures. The prevalence of victimization for any act of violence occurring at least once during one's teaching career ranged from 0.0% (Levin et al., 2006)

TABLE 2. Analyses of Publication Bias With the Egger Test

Outcome	*k*	Intercept	SE	*T*	*df*	*p*-value
Offensive remarks	4	−5.04	6.99	0.72	2	.545
Intimidation	4	−9.06	1.18	7.70	2	.016
Physical attack	4	−1.68	0.78	2.15	2	.164

Note. *k*: Number of studies; SE: Standard error; *T:* *T*-test; *df:* Degrees of freedom.

to 40% (May et al., 2010), with a pooled prevalence of 1.6% (95% CI = 0.0, 96; $Q(1) = 552.67$, $p < .0001$, I2 = 99.8%; $k = 2$); and for cyber-harassment ranged from 7.4% (Foley et al., 2015) to 8.3% (May et al., 2010), with a pooled prevalence of 7.8% (95% CI = 7, 7.8.9; $Q(1) = 3.60$, $p = .058$, I2 = 72.2%; $k = 2$), and for threats ranged from 5.7% (Ozdemir, 2012) to 15.2% (May et al., 2010), with a pooled prevalence of 9% (95% CI = 3.6, 20.4; $Q(1) = 43$, $p < .0001$, $I^2 = 97.7\%$; $k = 2$).

Again, heterogeneity was evident across all meta-analyses, with I2 ranging between 99.5% and 99.8%. However, due to the small number of studies, it was not possible to perform moderator variable analyses to explain the variability of effect sizes noted.

Publication Bias

Publication bias was assessed using Egger test (Sterne & Egger, 2005) to each of the meta-analyses performed (see Table 2). The Egger test reached statistical significance only for the meta-analysis conducted regarding intimidation ($p = .016$) experienced within the past year. Consequently, publication bias can be reasonably discarded as a serious threat to our meta-analytic findings.

DISCUSSION

To our knowledge, this is the first meta-analysis investigating the prevalence of violence directed against teachers by parents. Overall, our findings show that teachers experience parent-generated violence across a wide-range of violence types (e.g., offensive remarks, public humiliation, slander, physical attacks). In this analysis, teachers were most likely to experience non-physical victimization generated by parents, such as offensive remarks, whereas physical attacks occurred less frequently. Our findings generally suggest that victimization rates are lower as the severity and intrusiveness of the violent act increases, consistent with previous literature across other perpetrators (e.g., students; Longobardi et al., 2018). Finally, results show that there is considerable variability in prevalence rates across studies.

Results from this meta-analysis show prevalence estimates within the current or past year were nearly 15% for offensive remarks, 9% for slander, 6% for intimidation, 4% for shouting, 4% for insults, and less than 3% for a variety of other types (e.g., public humiliation, physical attacks). On the other hand, studies examining career victimization indicated 9% experience threats, 7.8% experience cyber-harassment, and nearly 2% of teachers report at least one form of parent-generated violence during their career. At a glance, these findings may seem counterintuitive. However, it is necessary to note that some studies examining violence across one's career relied on convenience samples, online surveys, or required for the study to be forwarded to teachers by the school principal (Foley et al.,

2015; May et. al., 2018). It is possible that the use of such methods and procedures may have underestimated parent-generated violence.

Moreover, consistent with previous work that has examined teacher-directed violence by students, teachers appear to most commonly experience non-physical forms of victimization (e.g., Gerberich et al., 2011). For example, this analysis shows that within a 1-year timeframe teachers are more likely to experience parent-generated victimization in the form of verbal aggression such as offensive remarks, slander, insults, and shouting. Interestingly, and concerning, is the notion that parents reportedly engage in acts that induce fear, such as intimidation (5.8%) and threats (9%). Acts of intimidation are often goal orientated and typically involve aggressive acts such as threats or other adverse consequences (Gallagher et al., 2008). Research suggests that teachers do not always recognize parental complaints and can underestimate the extent to which parents are disillusioned with their child's school (Westergård, 2007). From this standpoint, it is possible that parents may become frustrated due to their concerns not being addressed, which may result in at least some parents resorting to aggressive strategies. Future research using qualitative designs can explore the reasons for parent-generated violence in more depth.

More broadly, it is necessary to view these findings within the broader literature that has documented adversarial teacher–parent relations. We know from previous work that teacher–parent relations can be strained, and parents are often disappointed about their child(ren)'s achievement and school responses to discipline (Tatto et al., 2001). It is possible that these dynamics and tensions may contribute to parent-generated violence against teachers, especially when teachers have not had pre-existing contact with the student's parent (Adams & Christenson, 2000).

Limitations and Strengths

We must acknowledge several limitations of this meta-analytic study. First, our review did not include unpublished studies and only relied on studies written in English, Spanish or Italian, which may have limited the number of studies. Relatedly, our analysis included a limited number of studies. For example, four studies were used when analyzing parent-generated violence throughout the course of one's career. Therefore, the results of our study only represent an initial approach to determining the prevalence of parent violence against teacher, but it is necessary to begin to identify patterns of parent-generated victimization early in the development this body of research as it will better inform future studies.

Nevertheless, meta-analytic studies are often carried out with a low number of primary studies (Cochran, 1954; Higgins, Thompson et al., 2002). For example, Badenes-Ribera and colleagues (2015) conducted a meta-analytic study on the prevalence of violence in same-sex relationships. In this study, they performed several meta-analyses using three or four studies in each analysis.

Finally, the studies used for our analysis relied on a range of definitions, measurements, and timeframes, which more broadly, reflects a limitation within this growing body of research. Despite these limitations, this is the first study to produce robust estimates of parent-generated violence directed against teachers by using meta-analytic techniques; robust estimates are critical as this body of research is within its burgeoning stages. In addition, this study identifies challenges in the literature to improve upon and draws from a range of studies across countries, which strengthens external validity and allows us to better understand the broader scope of this problem.

Implications for Research

Our findings have implications for future research. Foremost, research examining teacher-directed violence has relied on different definitions of violence, constructs, measurements, and timeframes. The variability in measures and methodologies limits our ability to draw strong conclusions. Relatedly, many of the studies to date have examined teacher victimization using dichotomous measures (e.g., experienced victimization, did not experience victimization) and this work can benefit from measures that can also assess the severity of these experiences. Reliable, valid measures that comprehensively assess types of violence across contexts, settings, and perpetrators need to be developed. Reddy and colleagues (2018) suggest assessment of descriptive characteristics of the violence (e.g., characteristics of the individuals and groups involved, types of violence, settings), should be school structure (e.g., procedures, policies, discipline), and school supports (e.g., leadership, relationship quality across stakeholders); a multi-source, multi-method approach is needed. Second, longitudinal studies are needed that can help us to better understand how teacher-directed violence unfolds over time. Some teachers may respond in maladaptive ways and experience violence that escalates over time; whereas other teachers may respond effectively and have appropriate supports to prevent further escalation of these events. Longitudinal designs using latent growth curve modeling can help us to understand different trajectories of teacher victimization experiences. Finally, very few studies have used qualitative designs, and more studies are needed that can capture the interpretations and narratives that teachers assign to these experiences, as well as contextual factors and adaptive strategies that teachers employ in response to these incidents (McMahon et al., 2017; Reddy et al., 2018).

Implications for Practice

This study also has implications for practice. Foremost, teacher induction programs should address the problem of teacher-directed violence in its various forms (e.g., physical violence, theft, intimidation) and across school stakeholders (e.g., parents, students, colleagues, administrators). While teacher training and coaching programs often focus on students, strategies to work effectively with parents may also be beneficial. Developing positive teacher–parent partnerships and practicing strategies that prevent and address parental aggression such as threats and intimidation may possibly mitigate job stress, burnout or negative mental health outcomes that have been documented in previous research (Adams & Christenson, 2000; Dzuka & Dalbert, 2007; Reddy et al., 2018). It is also important to note that teacher preparation, induction programs, and school-based interventions have rarely focused on the emotional lives of teachers (Jennings & Greenberg, 2009). School-based social-emotional learning strategies may enable teachers to recognize and regulate their own emotions, as well as in others, and implement strategies that can prevent and de-escalate potentially hostile situations.

Conclusion

In conclusion, this study represents the first meta-analysis investigating the prevalence of violence against teachers by parents, which thereby allows for a more accurate understanding of the extent of this problem. This study highlights the international scope of this problem, the need for preventative strategies, and the roles of multiple school stakeholders who can serve as supports or perpetrators of violence and aggression. Teachers are one of

the most important influences in the lives of children and more research and interventions are needed to ensure the well-being of teachers, positive relations with parents, and positive outcomes for youth across the globe.

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AQ5

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