Victimized Teachers' Perceptions of Procedural Justice and the Impact on Satisfaction with School Responses

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Abstract

Victimization of teachers is an area of growing concern for administrators and policy makers. Recent research has increased the understanding of the prevalence and negative consequences of teacher victimization, however, one gap in the literature involves understanding the quality of treatment when victimizations are reported to school administrators. The present research attempts to fill the gap by applying procedural justice theory to understand how elements of school responses to victimization events affect teachers' satisfaction with the process. Data from teachers among 50 largest school districts across the nation were used to identify 636 theft, sexual harassment, and physical assault incidents reported to school administration. Teachers' satisfaction with the school response was modeled using measures derived from distributive and procedural justice theoretical frameworks applied to administrator actions. Results indicate that procedural justice is an important dimension of school response and influential on teachers' reported satisfaction with how victimization events were handled.

Key Words: Victim Satisfaction, Procedural Justice, Distributive Justice, Victimization, School Violence, Teacher Victimization

INTRODUCTION

Teacher victimization is an area of growing concern in the national dialogue in the United States. An increasing number of empirical studies (Gregory, Cornell, & Fan, 2012; McMahon et al., 2014; Moon & McCluskey, 2020; Tiesman, Hendricks, Konda, & Hartley, 2014; Wei et al., 2013) have begun to confirm a relatively high prevalence of victimization suffered by teachers. These studies showed that the prevalence rates of relatively less serious, non-violent victimization such as verbal abuse and non-physical contact aggression (i.e., students throwing/kicking objects in front of teachers) were highest. In contrast more serious, violent teacher victimization (e.g., physical assault and sexual harassment), was relatively less frequent, although rates were, nonetheless, concerning. Several empirical studies (Moon, Morash, June Oh, & Seokjin, 2015; Wilson, Douglas, & Lyon, 2011; Moon, Morash, & McCluskey, 2019) have also begun tracking the negative consequences of those victimization experiences and findings suggest heightened risk for emotional and physical distress among teachers that increases levels of stress, job dissatisfaction, student distrust, and turnover.

Though these studies have enhanced our understanding of the prevalence and negative consequences of teacher victimization, one gap in the literature is understanding the quality of teachers' treatment when they report victimizations to their schools. Simply put, there is a dearth of empirical studies on the predictors of victimized teachers' satisfaction with school interventions. Initial results in this area (McMahon et al., 2017; Moon et al., 2019) indicate that a substantial proportion of teachers who reported their victimization to schools disapproved of school administrators' handling of the incident, raising serious questions regarding the effectiveness of school responses to teacher victimization and motivating the current research. Therefore, the present research explores whether indicators of procedurally just treatment are

significantly related to victims' satisfaction with how the event was handled. Additionally, the relative contribution to victims' satisfaction will be compared between procedural justice (PJ) and distributive justice (DJ).

The current research aims to contribute to the extant literature on teacher victimization and school violence/aggression in several ways. First, to the best of our knowledge, no prior empirical research specifically investigated the effect of schools' quality of decision-making/treatment on victimized teachers' satisfaction with school responses. Second, several studies (see Murphy & Barkworth, 2014; Ziehgenhagen, 1976) found that victims' prior negative experiences with the criminal justice system were related to their decision not to report their subsequent victimization to police, reducing cooperation. In the same way, we might surmise that negative experiences with administration may lead to disengagement and lowered cooperation in producing a safe school environment. Also, a few studies (see Greenberg & Alge, 1998; Skarlicki & Folger, 1997) found that workplace (procedural) justice is significantly related to workplace violence and aggression. Finally, this research can help to identify schools' effective intervention strategies to teacher victimization in the context of PJ and DJ theory.

Below we first explore the prevalence and negative consequences of teacher victimization. Second, theoretical foundations of PJ and DJ and their interlinkage with victims' experiences are reviewed. Third, we consider the mechanisms which may tie PJ, DJ, and other factors to overall teacher satisfaction in how the situation was handled and conclude by distilling explicit theoretical predictions. Fourth, we introduce data, methods and an analysis plan to test the key hypotheses. Finally, we consider the results in the context of theory, policy, and directions for future research.

Prevalence and negative consequences of teacher victimization

A growing number of empirical studies (Gregory et al., 2012; McMahon et al., 2014; Moon et al., 2019; Robers, Kemp, Rathbun, Morgan, & Snyder, 2014; Wei et al., 2013) have established that teacher victimization is ubiquitous and has serious negative effects on victimized teachers. The 2017 Indicators of School Crime and Safety (Musu-Gillette et al., 2018) found that 5.8 percent and 9.8 percent of public-school teachers reported physical victimization and threats of injury by a student(s) respectively during the previous 12 months. McMahon et al. (2014), using a non-random sample of approximately 3,000 K-12 teachers, found that 44 percent of respondents experienced victimization by physical assault and almost 75 percent were victims of sexual harassment. Statewide studies conducted in Minnesota, Pennsylvania, and Virginia (Gregory et al., 2012; Tiesman, Konda, Hendricks, Mercer, & Amandus, 2013; Wei et al., 2013) found that 3 to 8 percent of teachers in the samples reported physical assault victimizations by students. For example, Wei et al. (2013) with a sample of 4,731 teachers in Minnesota found that 5 percent of participants experienced physical assault victimization during the year prior to the survey. It is important to note that the variations in prevalence reported here partially reflect variation in measurement across research, including the time period assessed (previous year as compared to lifetime), and the severity of the victimization (verbal as compared to violent assaults).

Empirical studies (Dzuka & Dalbert, 2007; Moon, Morash, Jang, & Jeong, 2015; Wilson et al., 2011) have found that teachers victimized at school suffer a range of negative emotions, physical distress, and fear of victimization. Wilson et al. (2011) found that 84 percent and 61 percent of victimized teachers reported negative effects of victimization on emotional well-being and physical health respectively. Studies (Kapa & Gimbert, 2018; Moon et al., 2020; Tiesman et

al., 2014) also indicate that victimized teachers are more likely to experience distrust toward students, job dissatisfaction, and/or increased burnout/turnover. Although the number of studies of negative consequences of teacher victimization is small, together they point to a consistent pattern of individual suffering and suggest it is likely associated with a significant erosion of the school environment.

Procedural Justice and Satisfaction

Procedural justice is a theoretical perspective that is focused on how authorities treat subjects in a qualitative sense and how those subjects perceive that treatment. Initial research comparing criminal justice structures commencing with Thibaut and Walker's (1975) work on dispute resolution linked participants' perceptions of input to decision-making with their satisfaction with ultimate decisions, independent of the outcome. Put simply, these findings suggest people's perception of treatment by an authority, in terms of procedural fairness, matters more than the results obtained in that interaction.

Tyler (2003) and Tyler & Huo (2002) have elaborated on the research and theorizing on PJ to argue that it comprises two components. The first, Quality of Decision-making (QD) comprises neutrality or unbiasedness and participation, which is akin to a chance to offer input or voice. The second Quality of Treatment (QT) is posited to be comprised of respectful treatment and perception of authorities' demonstrable care and concern. They are, in this perspective, separate but related anchors for individuals' PJ judgements. There is, however, an empirical question whether the measurement of PJ, legitimacy, and other concepts has been adequately established for the operationalization of the dual dimensions of QT and QD to be unique and separable (Gau, 2011; Johnson, Maguire & Kuhns, 2014).

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Literature on victimization has used some differing terminology, but the overlap with QD and QT are evident. For example, Laxminarayan and Pemberton (2014) have discussed PJ as fair procedure and voice, consistent with QD and their description of interpersonal justice as rooted in perceptions of politeness and respect is consistent with QT. Variation in how authorities handle those seeking assistance with their experience is an area to explore variations in PJ and the impact on satisfaction, especially in handling different victimization types (Laxminarayan, 2013; see also Murphy & Barkworth, 2014).

Studies on organizational justice (Tyler & Blader, 2003) generalize treatment by authorities to non-criminal justice settings with the key linking elements being that organizational action communicates shared values and morals (Bradford, Murphy & Jackson, 2014) and acts as a bond while simultaneously establishing one's status and relations within organizations (Wemmers, 1998). Extending Bradford's (2011) observations to a different setting, perception of school authority's action (or inaction) arguably serves as a signal which is tightly linked with satisfaction and in turn contributes to teachers' global sense of attachment and legitimacy relative to the school. The backdrop of school settings, where teachers are embedded in an organization structure whereby victimization can be addressed formally, informally, and in a variety of manners, suggests an environment ripe for exploration of PJ effects with rich theoretical and practical implications.

Several studies (McMahon et al., 2017; Reddy et al., 2013) on teacher victimization have explored the relationship between supportive administrative action/care and victimized teachers' satisfaction with school responses or trust. For example, Reddy et al. (2013) examined case studies of teachers' victimization which included assertions that unsupportive administrative actions undermined teachers' trust in the wake of victimization. Qualitative research by

McMahon and colleagues (2017) strongly suggests an association between PJ and administrative actions that provoke a sense of injustice and dissatisfaction. That research explored the text of 237 teachers' open-ended survey responses and found lack of administrative support (themes of disempowerment and lack of concern, for example) to be an extremely upsetting element of their victimization experiences. Specifically examining victim support in school contexts motivates the current research approach that more fully elaborates the two dimensions of PJ (Colquitt, 2001; Elliott, Thomas, & Ogloff, 2012).

Distributive Justice and Satisfaction

An alternative view of victims' satisfaction lies on the cornerstone of distributive justice (DJ), or "what one gets" as an outcome of interactions with authorities. Thus the satisfaction of victims may be driven by the outcomes of the process rather than the quality of treatment. Outcomes in the school setting could include involving police, making an arrest, punishing the wrongdoer, or otherwise ameliorating the consequences of the event through apology and restoration. Wells' research (2007) found that outcomes were more important than treatment in ratings of police and the larger victimization literature indicates that outcome does, indeed, influence satisfaction levels across several studies (Laxminarayan, Bosmans, Porter, & Sosa, 2013). For example, Erez and Bienkowska (1993) conducted a study of victim satisfaction in Poland with a survey of 1,496 victims. Multiple regression results indicated that restitution and severity of sentence were both significant predictors of higher victim satisfaction with the overall process, controlling for other aspects of the process and demographic characteristics. Importantly Laxminarayan and Pemberton (2014) illustrated that the PJ impact on victim reactions was strongly expressed under favorable DJ outcomes, suggesting a possible moderating effect.

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In the specific context of teacher victimization, analysis of qualitative responses from a sample of 231 victimized teachers indicated that outcome was very important to victims (McMahon et al., 2017). The findings showed that many victimized teachers were upset and dissatisfied with school responses when school administration failed to discipline and punish student perpetrators adequately and proportionally. Similarly, Moon et al. (2019) found that school questioning/discipline of students and their apology, primary aspects of DJ, were significantly and positively related to teachers' satisfaction with school responses.

Contextual Factors and Incident Characteristics

Beyond the treatment a victim receives and the nature of response to victimization events, the context of victimization yields at least two factors that could directly or indirectly impact victim satisfaction. First, several empirical studies (Erez & Tontodonato, 1992; Fisher, 2014) found that the nature of the victim-offender relationship (VOR), ranging from stranger to known individuals – is related to victim satisfaction. For example, Fisher (2014) analyzed data from a sample of 1,308 victims collected in 1994 by the National Center for Victims of Crime and found VOR effects, with stranger crimes yielding higher satisfaction in models including measures of DJ. However, a study by Erez and Bienkowska (1993), using a sample of 1,496 victims from Poland, found no relationship between VOR and satisfaction with sentence or satisfaction with the criminal justice process in multivariate analyses. Overall, evidence regarding the impact of VOR on satisfaction has been mixed.

A second contextual factor, the seriousness of the event, has been found to have some impact on victims' reported satisfaction, but again, that evidence is inconsistent. Typically seriousness has been measured by type of crime, such that personal crimes (robbery, physical assault) are often contrasted with property crimes. Erez and Tontodonato (1992) contrasted

property and violent crime in predicting global satisfaction and found no significant difference in regression models. In parallel models of the outcome of satisfaction with the sentence in the case, however, victims of violent offenses reported significantly higher levels of satisfaction. Erez and Bienkowska (1993) found no relationship between crime type and satisfaction with sentence but victims of violent crime were significantly more satisfied with the criminal justice process in multivariate analyses of Polish crime victims. Overall, the findings on the relationship between VOR, seriousness and victim satisfaction with justice processes are suggestive that stranger and more serious victimizations may yield higher levels of satisfaction, and thus are important correlates that must be controlled.

The present research

Competing views of how victims are treated against what victims receive in terms of outcomes (restoration, vengeance, and so on) represent two important frames for understanding how systems and organizations such as the justice system or schools can aid individuals in coping and coming to terms with these events. Tyler and Huo (2002) and Tyler (2003) found that satisfaction and decision acceptance are much more heavily dependent upon PJ than DJ outcomes.

Two primary competing hypotheses are suggested from the foregoing theoretical frameworks and empirical findings, along with a third regarding the relative contributions of the two elements of justice in explaining satisfaction.

H_1: As teachers' perceptions of procedural justice increase, their satisfaction with how the event was handled will increase.

H_2: Outcomes reflecting greater distributive justice in the form of punishments/accountability will increase teacher satisfaction with the handling of the incident.

H_3: Procedural justice will have a greater relative impact on victim satisfaction than distributive justice, holding constant the effects of other variables.

METHODS

Sample

Data from first wave of a four-year longitudinal research project funded by the National Institute of Justice were used for this project. The research was designed to examine the prevalence and negative consequences of teacher victimization and explore school responses. Data were collected from a sample of middle and high school teachers among 50 largest school districts across the nation using protocols and instruments approved by the Institutional Review Board at the University of Texas San Antonio.[1]

In order to select a random sample of teachers, a multistage sampling design was employed. First, teachers at elementary schools were excluded from the present research as prior studies (Chen & Astor, 2009; Lyon & Douglas, 1999) indicate a lower likelihood of victimization compared with middle and high schools. Second, all middle and high schools within the 50 largest schools were enumerated. Then, these schools were classified into nine groups, based on the percentages of students eligible for free or reduced-price lunch and academic performance. Approximately 10 to 130 schools (including replacement schools) from each group were randomly selected, depending on the number of schools in each group. Third, the names and email addresses of all teachers among randomly selected schools were gathered, either from publicly accessible school websites or provided by school districts. In the spring of 2022, an e-letter outlining the research's purpose was sent to all teachers within randomly selected teachers. Approximately one week later, these teachers were invited to take part in the survey with a personalized link via Qualtrics. To compensate participants for their time and effort to the survey outside of their work hours, each participant received a $20 e-gift card via a private party upon completion of the survey at wave I. The survey took around 20-30 minutes to

complete and the data collection phase lasted approximately three months, from April to June 2022.

With an anticipation of about 10% response rate and at least 3,800 completed cases, the research team sent out invitation e-letters with personalized survey links to 38,498 middle and high school teachers within the 50 largest school districts. The anticipated 10% response rate was chosen based on two major reasons. First, we recognized that online surveys with non-student adult respondents, particularly teachers, invited via emails tend to have a low response rate (Jerrim, 2023; Wu et al., 2022). Second, and more importantly, survey non-completion is a growing concern during and post-COVID pandemic even of those studies conducted by highly expert and well-resourced federal agencies, including the US Census Bureau and Centers for Disease Control and Prevention (e.g., Krieger et al. 2023). One particular example is the US Household Pulse Survey, conducted by the US Census Bureau in collaboration with multiple federal agencies, which reported only about 6-8% response rates in the waves of data collection in 2020-2023 (US Census Bureau, 2023).

In our study, 4,005 teachers from 609 middle and high schools took part in the first wave of the online survey, with over 94% of them completing the entire survey. The overall response rate is 10.4%; however, it is worth noting that this response rate is likely a very conservative estimate for two main reasons. First, it is important to note that the tracking record from Qualtrics is no longer available. Consequently, the research team could not verify whether invited teachers received and/or opened the invitation emails. There is a possibility that these mass emails sent via Qualtrics may have been redirected to junk folders due to school firewall settings or other email filtering mechanisms. Second, the researchers collected teachers' names and emails primarily from school websites, and it is highly probable that some of these email

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addresses are no longer valid as teacher turnover is relatively high and retired teachers' names and emails may not have been adequately updated on school websites. The inability of the research team to engage directly with districts likely contributed to the omission of some districts from participation and to the suboptimal response rate.

The validity of the findings from the survey might raise concerns because of the low response rate and potential non-response bias. However, prior research conducted by Fosnacht et al. (2017), which analyzed data from the National Survey of Student Engagement, suggests that research with a response rate of 5% to 10% but with a large sample size (at least 500 participants) can produce reliable and confident estimates. This finding is consistent with previous studies by Viviënne et al., 2003; Wu, Zhao, & Fils-Aime, 2022.

Dependent Measure

The outcome of interest is teachers' global satisfaction with the school administration's overall handling of the victimization event. In the first wave, a total of 636 victimization events with complete data, shown in Table 1, were reported by 607 teachers in the sample. The respondents indicated a total of 649 events were brought to the attention of school administrators, but 13 incidents, or approximately 2 percent, were excluded because of missing data issues. Participants responded to the following prompts for reporting each type of victimization by students in the last 12 months presented in the bottom panel of Table 1: Victimization of theft/property damage (e.g. stealing, kicking/damaging property such as car, vandalism); victimization of physical assault (e.g. attacks, fight, assault with weapon, punches); victimization of sexual harassment (e.g. unwanted

<<Insert Table 1 About Here>>

touching, name-calling with sexual epithets, obscene gestures). The response is measured with a four-category item: in the sample of incidents used here; overall 9% resulted in victims reporting being very satisfied (n=58), 31% satisfied (n=199), 32% dissatisfied (n=206) and 27% very dissatisfied (n=173).

Independent Measures

The independent measures and their descriptive statistics are organized in four domains in Table 2. The central domain of interest is procedural justice, captured by a composite measure of PJ that builds off of items originally adapted from those explored by Reisig, Bratton, and Gertz (2007). Respondents who reported the incidents were asked to answer six items, coded using a four-point Likert scale ranging from strongly disagree to strongly agree was used for each item, and these items are: school administrators 1) treated you with respect, 2) treated you fairly 3) took the time to listen to you, 4) based decisions upon the facts, 5) explained their decisions to you, 6) made decisions to handle the incident fairly.

Initial principal components analysis of incidents reflecting perceptions of how administration handled theft, assault, and harassment were conducted separately, and indicated in each instance a unitary measure consistent with procedural justice could be constructed. For example, with regard to the theft victimization the six items suggested a unitary factor explaining 79% of variance could be extracted with an eigenvalue of 4.76 and no other factor exceeded 1. The item loadings ranged from .78 to .94 among the six items in the index (Cronbach's α=.95). This was repeated with little variation in the analysis of the items involving teachers' perceptions

of the administration's handling of harassment and theft. A standardized index of the 6 items was then computed by summing the scores as a measure of PJ and dividing by 6 to generate a score ranging from one to four.

<<Insert Table 2 About Here>>

A series of variables representing *outcomes* comprise the second domain of used in this analysis to represent DJ. The first set represents school response, a series of binary measures (1=presence of indicator, 0=else) capturing the highest level of the administrative response to the reported incident. These include: Doing nothing (n=236 events; 37% of sample) which is the reference category in our models, conducting questioning/investigation/other action (n=155; 24%), detention (n=66; 10%), suspension and expulsion n=179; 28%). Sociology of law approaches to ordering the formality of response would, for example, be consistent with this strategy (Black, 1976). Creating an ordinal index of this variable, however, masked some variation in the response categories and thus a series of dummy measures was preferred. The second aspect we measure with regard to outcome is whether the offender offered an apology to the victim, (1=yes, 0=no) indicating one was offered in 23% of incidents.

The third domain of variables predicting satisfaction is drawn from key *event contexts or characteristics*. Seriousness of the event is captured by three measures: the perceived seriousness of the event, the number of offenders involved, and the type of victimization event. Perceived seriousness is measured on a five-category ordinal scale, from not serious (=1) to very serious (=5), with a mean level of 3.16, reflecting the middle category of moderate seriousness of the victimization event as judged by the victimized teachers. The second dimension of

seriousness measures whether the event is known to have involved multiple offenders in a binary variable (1=more than one offender, 0=else) indicating that 46 percent of events were reported to involve multiple offenders. The final measure of seriousness reflects the type of victimization event categorized above using dichotomous measures to capture physical assault, theft/property, and sexual harassment incidents, which, though not shown in Table 2, are illustrated in Table 1, making up 28%, 51% and 21% of the cases in the sample, respectively and captured with a dummy measure (1=of that type, 0=else). Victim-offender relationship, the other theoretically relevant context, is measured as an ordinal scale measuring the closeness of the offender and victim with zero indicating an unknown offender and four indicating the offender was well-known to the victim, with a mean score of 3.86 for the total sample and with personal victimizations having higher mean scores compared to theft.

The fourth and final domain represents important control variables of teacher characteristics. The sex of the teacher involved in the victimization is measured using a binary variable (1=female, 0=male) and 75 percent of the events involved female teachers. Teaching experience was measured by years in the profession, ranging from 0 to 40, with a mean of 12. Teacher race and ethnicity was captured by a series of binary measures with white as the reference (excluded category). Events with Latino teachers account for 11 percent of victimization in the sample in contrast to 14 percent each for events with teachers of Black or 9 percent of other racial (not white) backgrounds. Finally, a binary measure distinguishing events involving teachers at middle school (=1) as contrasted with high school (=0), indicates 58 percent involved the former.

RESULTS

Analytic Strategy

A variety of approaches to modeling the outcome of satisfaction are available, and before addressing the ordinal logistic models we ultimately fitted, we discuss general model diagnostics and the consideration of several alternative models in brief. First diagnostics for collinearity variance inflation factors (VIF) were computed. All VIFs were under the threshold of 1.6, indicating that collinearity did not present a substantial concern. Given the ordinal dependent measure, a primary concern for analysis can be violation of the parallel line assumption, which was examined using the Brant test (Long & Freese, 2014; Long, 1997). Violations of the parallel line assumption although relatively common, were not present in the data, suggesting that ordinal regression is an appropriate fit.

A check on the clustering logic was executed by clustering cases on the school (N=326 units) from which the event was reported. Results were identical with regard to statistical significance in Table 3, that is, the standard errors of the slopes were consistent across clustering choices of individual teacher (our choice below) or school and revealed no noteworthy discrepancy. In sum, the models presented below, though reflecting some measurement and analytical choices, are defensible as an accurate picture that might be derived from alternative models with somewhat different assumptions and measurement approaches.

Ordinal regression analysis was conducted and these models estimate the impacts of four domains of independent variables. Since 607 respondents generated the 636 events assembled as units, it was decided that clustering the events on teachers would be necessary due to the non-independence of events. This approach preserves the event level of analysis, but recognizes intra-individual dependence in the nested (victimizations within teachers) data. The results of

the models with robust standard errors are reported in Table 3, predicting global satisfaction with the administration's response to the victimization event and with odds ratios for each independent variable reported adjacent to unstandardized slope coefficients.

<<Insert Table 3 About Here>>

Model 1 focuses on teacher characteristics, and none appears to be a significant predictor of satisfaction, with the overall model being no better than chance predictor of satisfaction level $\chi^2(7)=5.3$, ($p=.63$). Model 2 adds event characteristics and shows that teachers victimized by multiple offenders were less likely to be satisfied, while those deemed more serious by victims have significantly lower levels of satisfaction. The overall model is a substantial improvement over chance $\chi^2(12)=92.3$ ($p < .001$), but yields a relatively weak (pseudo-$R^2=.06$) measure of fit. Model 3 builds on Model 2 by adding in outcomes associated with DJ, and a substantially better fit is noted $\chi^2(16)=208.9$ ($p < .001$), as also reflected in the measure of fit capturing substantial improvement (pseudo-$R^2=.15$) and all three coefficients reflecting school actions contrasted with doing nothing predict greater satisfaction for each indicator of school response and when an apology was offered to the victim satisfaction was, likewise, significantly increased ($b=.68$, $p < .001$). The odds of indicating higher satisfaction, holding constant other variables, increase by a factor of 1.98 given an apology and by 2.84 investigation, 3.84 for detention, and 9.02 for suspension or expulsion as compared to no school action taken. Finally, in Model 4 PJ indicates ($b=2.19$, $p < .001$) substantial and powerful association with global satisfaction. A substantial improvement is notable in model fit $\chi^2(16)=261.6$, ($p < .001$), with a likelihood ratio of $\chi^2(1)=52.7$ ($p < .001$), reflecting overall fit improvement (pseudo-$R^2=.35$; $R^2\Delta=.20$). The Akaike

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Information Criterion (AIC) confirms the superior fit as the model 3 AIC (AIC=1446.2) is larger than the AIC for model 4 (AIC=1114.6) and the superior fit is also evidenced by the Bayesian Information Criterion (BIC) (model 3 BIC=1530.9, model 4 BIC=1203.7). Model 4 indicates that for a unit increase in PJ, the odds of reporting higher satisfaction increase by a factor of 8.97, holding constant all other variables in the model.

Hypothesis three finds support in model 4 with respect to improvement of overall fit from model 3. Another approach would be to compare the isolated effects of DJ and PJ. Analyses (not shown) conducted on the sample of 636 events indicate that, in terms of fit metrics such as the AIC and BIC that, using only isolated estimators from these two domains, procedural justice fit is superior to that of the distributive justice measures. These results are, unsurprisingly, consistent with those obtained from the initial modeling strategy.

Of interest to policymakers and administrators is whether interactions between aspects of the event, such as seriousness, and DJ and PJ are evident. To explore this possibility a series of models were estimated and are presented in Table 4 which shows only the coefficients of interest for exploring aspects of moderation.

<<<Table 4 About Here>>>

In model 4A, we observe no significant interaction between seriousness and DJ in the form of punishment types. Model 4B similarly suggests that seriousness of the incident does not interact with PJ in any substantial manner. Interestingly, we do find evidence of an interaction between DJ and PJ, in model 4C. Specifically, a unit increase in PJ among school responses involving investigation or question, compared with no school action, the odds of reporting higher satisfaction increase by a factor of 2.23, holding constant all other variables in the model.

DISCUSSION

To date, no empirical research has investigated victimized teachers' satisfaction with schools' responses to reported incidents in the context of PJ theory. The present research, using a sample of 636 events of teacher-directed aggression in large public-school districts across the U.S., is the first attempt to test the effects of PJ on victims' satisfaction with school responses and explore comparative magnitude of PJ and DJ on victims' satisfaction.

Findings indicate that PJ is an important and powerful predictor of victimized teachers' satisfaction with school responses, providing support for Hypothesis 1. Victims who believed that they were treated fairly by schools are more likely to report significantly higher levels of satisfaction with schools' responses to their victimization incidents, holding constant the effects of other predictors. This implies that the manner in which school administrators respond to incidents of teacher victimization with fairness and impartiality has direct effect on teachers' perceptions of how effectively their school handles teacher victimization. Though we acknowledge the need for further investigation on this issue, this initial result suggests the significant impact of victimized teachers' perceptions of procedural justice in school administrators' treatment on their satisfaction with school response. This underscores the critical need for schools to establish comprehensive guidelines and training programs for addressing incidents of teacher victimization, ensuring equal and fair treatment for all parties involved.

Second, Hypothesis 2 was also supported as the findings indicate that DJ matters to victims' satisfaction with school responses, even after the inclusion of PJ in the final model. The findings indicate that a more formal school response also plays a significant role in explaining victim satisfaction with how the event was handled. Teachers are more likely to report higher levels of satisfaction with school responses to victimizations when offending students received

higher levels of discipline, up to and including expulsion, from the administration. This indicates that victimized teachers expect school administrators to hold offending students accountable through appropriate and suitable disciplinary measures, which include punishments such as removing students from their classes through suspension or expulsion. Also, the findings suggest that victimized teachers are more likely to be satisfied with school responses when an offending student offered an apology, though this result is attenuated and not significant once PJ is entered in the model. Nevertheless, the result is consistent with research in restorative justice where apology is often part of proceedings and significant contrasts in victim satisfaction levels are evident between traditional proceedings and restorative processes (e.g., Strang, Mayo-Wilson, Woods, & Ariel 2013). Though more research on the relationship between students' apology and victim satisfaction in the context of teacher-directed violence is necessary, it can be speculated that an offending student's direct apology to a victimized teacher may contribute to a sense of fair procedure, which more directly leads to higher levels of victim satisfaction with school responses. A modest correlation (r=.2) between apology and PJ suggests this avenue as one for future exploration.

Third, we investigated the relative effects of PJ on victims' satisfaction, compared to DJ. Measures of PJ and DJ had statistically significant effects on victims' satisfaction. The modeling strategy adopted here suggests that the direct effect of PJ is substantially greater than that of DJ measures on victims' satisfaction, providing support for hypothesis three. Supporting Tyler's arguments, this initial result may suggest that victimized teachers' perception of treatment by school administration matters more in shaping victims' satisfaction with the overall process than the outcomes. Nevertheless, it is important to note that both PJ and DJ play pivotal roles in shaping victimized teachers' satisfaction with school responses as found in the present research.

This underscores the importance and necessity for schools to adopt a holistic and comprehensive approach that integrate both PJ and DJ aspects to respond more effectively to incidents of teacher victimization.

In our exploration of interactions between seriousness, PJ and DJ the results suggested that seriousness did not interact with either PJ or DJ. However, a substantial interaction between DJ, in the form of school investigation/questioning as compared to no action and PJ showed a significant effect. This should be interpreted cautiously, but suggests that administrative responses that are minimal (that do not involve direct punishment) will be received much more positively when accompanied by higher levels of PJ as perceived by victims. While further research is necessary, it is plausible that victimized teachers may pay less attention to how they were treated by school administrators when offending students face disciplinary punishment. Conversely, when offending students receive no punishment, victimized teachers may reflect on their own treatment by the school after reporting the incident, questioning whether school administrators treated and handled them and their cases with fairness and impartiality.

Several limitations in the present research involving methodological and statistical concerns must be mentioned. First, the data were collected with a sample of middle and high school teachers across the U.S. with a comparatively lower level of response than the research team anticipated, in part due to the COVID-19 impact on schools. Therefore, the generalizability of the current study's findings is limited in the sense that the historical context of the research is undeniably unique. Second, the cross-sectional design, wherein the victimization event, satisfaction as an outcome, and assessment of the perceptions of administration's use of PJ are simultaneous creates a causal order problem. Third, the present research employed victimized teachers' subjective measurement of schools' PJ in handling their victimization, which may raise

a question about the accuracy of schools' responses in the context of PJ. Future research needs to utilize objective measurements of schools' responses to better understand the moderating effect of PJ on the relationship between teacher victimization and satisfaction with administrative responses. This could include an examination of school files as a reliability check or a primary data source for assessing what schools did, rather than having the teacher be the primary reporter. More specifically, regarding shared method bias, a single point of reporting from the perspective of the victimized teacher regarding the event, its context, the school's response, enumeration of school actions, and the evaluation overall of the event have a method-based correlation. These correlations and their shared source likely inflate the results reported here. Fifth, our research is limited to examining predictors of teachers' satisfaction with school responses within the context of PJ. Future research needs to investigate diverse aspects of schools' (in)effective handling of teacher victimization, especially focusing on whether school responses are significantly related to victimized teachers' emotional/physical distress, turnover, and/or job satisfaction. Nevertheless, grounded in theory, the results reflect a new location, school administration, wherein resolutions to a substantial amount of victimization are addressed formally and informally within U.S. society. Illuminating this as a location wherein the PJ and DJ concerns should be considered is, we argue, an important advance for victimization research. The research suggests a framework from which school administrators should consider reviewing their practice and process for addressing the all too frequent victimization of teachers by those who they are entrusted to serve.

Our findings highlight several important policy implications for school administrators' responses to teacher victimization. The findings indicate that approximately 60 percent of victimized teachers who reported their incident were dissatisfied or very dissatisfied with the

school's response. The result is consistent with prior findings (McMahon et al., 2017) that victimized teachers rated school administrators' inadequate intervention and response as one of the most frustrating aspects in their experience. An optimistic interpretation is, however, that these results offer a pathway towards supportive approaches to teachers experiencing theft, sexual harassment, or physical assault. This path is specifically in the form of PJ, which when unpacked from the measures used in this analysis amount to unbiasedness in handling cases, treating all parties with respect, care, and concern, and the importance of participative case resolution, if the latter is feasible. The outcome variable, satisfaction with the school's handling of the particular victimization event, is an intermediate concern for school administration. Inevitably, if the larger body of PJ research (Tyler & Fagan, 2008) is to be applied, dissatisfied teachers are also less bonded to the school, less likely to cooperate or report in future incidents, and have a reduced sense of institutional legitimacy. These are more distal consequences than dissatisfaction with handling of the current victimization, but likely lead to erosion of the school culture and cohesion and, in the worst cases leading to higher levels of school violence and aggression. In the case of the individual teacher, perception of administrative mishandling the incident is likely to be a factor in decisions to leave one's career or switch schools (see Moon et al. 2020).

NOTE

Note 1: As described, the research design anticipated sampling teachers from all 50 of the largest school districts. This became impossible, however, due to several technological barriers, which we strongly surmise to be Independent School Districts' email firewall systems blocking emails from Qualtrics, or survey emails being directed to teachers' junk folders. Thus, no or extremely small numbers of teachers in 12 out of the 50 largest independent school districts participated in the wave I survey. Due to covid-19 travel restrictions, our ability to ascertain or obtain alternative electronic access was severely curtailed.

REFERENCES

Bradford, B., Murphy, K., & Jackson, J. (2014). Officers as Mirrors. *British Journal of Criminology, 54*(4), 1-1.

Chen, J.-K., & Astor, R. A. (2009). Students' Reports of Violence Against Teachers in Taiwanese Schools. *Journal of School Violence, 8*(1), 2-17.

Dzuka, J., & Dalbert, C. (2007). Student violence against teachers: Teachers' well-being and the belief in a just world. *European Psychologist, 12*(4), 253-260.

Elliott, I., Thomas, S. D. M., & Ogloff, J. R. P. (2012). Procedural justice in contacts with the police: the perspective of victims of crime. *Police Practice & Research, 13*(5), 437-449.

Gau, J. M. (2011). The Convergent and Discriminant Validity of Procedural Justice and Police Legitimacy: An Empirical Test of Core Theoretical Propositions [Article]. *Journal of Criminal Justice, 39*(6), 489-498. https://doi.org/10.1016/j.jcrimjus.2011.09.004

Greenberg, J., & Alge, B. J. (1998). *Aggressive reactions to workplace injustice.* In R. W. Griffin, A. O'Leary-Kelly, & J. M. Collins (Eds.), *Monographs in organizational behavior and industrial relations, Vol. 23, Parts A & B. Dysfunctional behavior in organizations: Violent and deviant behavior* (p. 83–117). Elsevier Science/JAI Press.

Gregory, A., Cornell, D., & Fan, X. (2012). Teacher Safety and Authoritative School Climate in High Schools. *American Journal of Education, 118*(4), 401-425.

Jerrim, J (2023). Teacher surveys: The pros and cons of random probability surveys versus teacher panels. *Review of Education, 11*(2), Article e3428. https://doi.org/10.1002/rev3.3428

Johnson, D., Maguire, E. R., & Kuhns, J. B. (2014). Public Perceptions of the Legitimacy of the Law and Legal Authorities: Evidence from the Caribbean [Article]. *Law & Society Review, 48*(4), 947-978. https://doi.org/10.1111/lasr.12102

Krieger, N., LeBlanc, M., Waterman, P. D., Reisner, S. L., Testa, C., & Chen, J. T. (2023). Decreasing Survey Response Rates in the Time of COVID-19: Implications for Analyses of Population Health and Health Inequities. *American Journal of Public Health*, *113*(6), 667–670. https://doi.org/10.2105/AJPH.2023.307267

Laxminarayan, M. (2013). The Effect of Retributive and Restorative Sentencing on Psychological Effects of Criminal Proceedings. *Journal of Interpersonal Violence, 28*(5), 938-955. doi:10.1177/0886260512459385

Laxminarayan, M., & Pemberton, A. (2014). The interaction of criminal procedure and outcome. *International Journal of Law and Psychiatry, 37*(6), 564-571.

Longobardi, C., Badenes-Ribera, L., Fabris, M. A., Martinez, A., & McMahon, S. D. (2019). Prevalence of student violence against teachers: A meta-analysis. *Psychology of Violence, 9*(6), 596-610.

McMahon, S. D., Martinez, A., Espelage, D., Rose, C., Reddy, L. A., Lane, K., Anderman, E. M., Reynolds, C. R., Jones, A., & Brown, V. (2014). Violence directed against teachers: Results from a national survey. *Psychology in the Schools, 51*(7), 753-766.

McMahon, S. D., Reaves, S., McConnell, E. A., Peist, E., & Ruiz, L. (2017). The Ecology of Teachers' Experiences with Violence and Lack of Administrative Support. *American Journal of Community Psychology, 60*(3/4), 502-515.

Moon, B., & McCluskey, J. (2020). An exploratory study of violence and aggression against teachers in middle and high schools: Prevalence, predictors, and negative consequences. *Journal of School Violence, 19*(2), 122-137

Moon, B., Morash, M., June Oh, J., & Seokjin, J. (2015). Violence Against Teachers in South Korea: Negative Consequences and Factors Leading to Emotional Distress. *Violence & Victims, 30*(2), 279-292. doi:10.1891/0886-6708.VV-D-13-00184

Moon, B., Morash, M., & McCluskey, J. (2019). Student Violence Directed Against Teachers: Victimized Teachers' Reports to School Officials and Satisfaction With School Responses. *Journal of Interpersonal Violence*. Advance online publication. doi:10.1177/0886260519825883

Moon, B., Saw, G., & McCluskey, J. (2020). Teacher Victimization and Turnover: Focusing on Different Types and Multiple Victimization. *Journal of School Violence, 19*(3) 1-15. doi:10.1080/15388220.2020.1725529

Murphy, K., & Barkworth, J. (2014). Victim Willingness to Report Crime to Police: Does Procedural Justice or Outcome Matter Most? *Victims & Offenders, 9*(2), 178-204. doi:10.1080/15564886.2013.872744

Musu-Gillette, L., Zhang, A., Wang, K., Zhang, J., Kemp, J., Diliberti, M., and Oudekerk, B.A. (2018). Indicators of School Crime and Safety: 2017 (NCES 2018-036/NCJ 251413). National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC.

Reddy, L. A., Espelage, D., McMahon, S. D., Anderman, E. M., Lane, K. L., Brown, V. E., . . . Kanrich, J. (2013). Violence Against Teachers: Case Studies from the APA Task Force. *International Journal of School & Educational Psychology, 1*(4), 231-245. doi:10.1080/21683603.2013.837019

Reisig, M., Bratton, J., & Gertz, M. (2007). The construct validity and refinement of process-based policing measures. *Criminal Justice & Behavior, 34*(8), 1005-1028.

Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology, 82*(3), 434–443.

Strang, H., Sherman, L. W., Mayo-Wilson, E., Woods, D., & Ariel, B. (2013). Restorative Justice Conferencing (RJC) Using Face-to-Face Meetings of Offenders and Victims: Effects on Offender Recidivism and Victim Satisfaction. A Systematic Review. *Campbell Systematic Reviews, 9*(1), 1-59. doi:10.4073/csr.2013.12

Thibaut, J., & Walker, L. (1975). *Procedural Justice: A Psychological Analysis*. New York: Wiley.

Tyler, T. R. (2003). Procedural Justice, Legitimacy, and the Effective Rule of Law. *Crime and Justice, 30*, 283-357.

Tyler, T. R., & Blader, S. L. (2003). The Group Engagement Model: Procedural Justice, Social Identity, and Cooperative Behavior. *Personality and Social Psychology Review, 7*(4), 349-361. doi:10.1207/S15327957PSPR0704_07

Tyler, T. R., & Fagan, J. (2008). Legitimacy and Cooperation: Why Do People Help the Police Fight Crime in Their Communities? *Ohio State Journal of Criminal Law, 6*(1), 231-275.

Tyler, T. R., & Huo, Y. J. (2002). *Trust in the Law Encouraging Public Cooperation with the Police and Courts Through*: Russell Sage Foundation.

US Census Bureau. (2023, October). *Household Pulse Survey technical documentation*. https://www.census.gov/programs-surveys/household-pulse-survey/technical-documentation.html

Wei, C., Gerberich, S. G., Alexander, B. H., Ryan, A. D., Nachreiner, N. M., & Mongin, S. J. (2013). Work-related violence against educators in Minnesota: Rates and risks based on hours exposed. *Journal of Safety Research, 44*, 73-85.

Wells, W. (2007). Type of contact and evaluations of police officers: The effects of procedural justice across three types of police–citizen contacts. *Journal of Criminal Justice, 35*(6), 612-621. doi:10.1016/j.jcrimjus.2007.09.006

Wemmers, J.-A. (1998). Procedural Justice and Dutch Victim Policy. *Law & Policy, 20*(1), 57-76. doi:10.1111/1467-9930.00042

Williams, R. (2016). Understanding and interpreting generalized ordered logit models. *The Journal of Mathematical Sociology, 40*(1), 7-20. doi:10.1080/0022250X.2015.1112384

Wilson, C. M., Douglas, K. S., & Lyon, D. R. (2011). Violence Against Teachers: Prevalence and Consequences. *Journal of Interpersonal Violence, 26*(12), 2353-2371. doi:10.1177/0886260510383027

Wu, M-J., Zhao, K., & Fils-Aime, F. (2022). Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports, 7*, 100206. https://doi.org/10.1016/j.chbr.2022.100206

Ziehgenhagen, E. (1976). The recidivist victim of violent crime. *Victimology: An InternationalJournal*, 1, 538–55

Table 1: Reported Incident Types, Satisfaction, and Frequency (N=636)

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
	N (%)	N (%)	N (%)	N (%)
Theft/property damage	83 (26%)	108 (33%)	105 (33%)	27 (8%)
Physical assault	53 (30%)	50 (28%)	56 (32%)	18 (10%)
Sexual harassment	37 (27%)	48 (35%)	38 (28%)	13 (10%)
Total	173 (27%)	206 (32%)	199 (31%)	58 (9%)

*Row percentages may not sum to 100% due to rounding

Table 2: Descriptive Statistics total sample, and victimization type subsamples (607 unique individuals report)

			Total sample		Theft		Assault		Harassment	
			N=636		N=323		N=177		N=136	
	Min	Max	X̄/%	S.D.	X̄/%	S.D.	X̄/%	S.D.	X̄/%	S.D.
Dependent Measure										
Satisfaction	1	4	2.22	0.95	2.24	0.93	2.22	0.99	2.20	0.95
Teacher Char.										
Teacher Female	0	1	75%		72%		73%		83%	
Years of teaching	0	40	12.23	8.72	12.39	8.79	12.65	8.95	11.30	8.22
Hispanic Teacher	0	1	11%		10%		14%		9%	
Black Teacher	0	1	14%		10%		23%		12%	
Other race/eth	0	1	9%		10%		9%		9%	
Middle School	0	1	58%		60%		56%		57%	
Event Char.										
Seriousness	1	5	3.16	1.08	2.93	1.06	3.58	1.06	3.15	0.99
V/O Relation	0	5	3.86	1.49	3.58	1.68	4.03	1.35	4.27	0.98
Multiple Offenders	0	1	46%		50%		42%		40%	
School Outcomes										
No Admin Action	0	1	37%		44%		28%		34%	
Investigate/Question	0	1	24%		24%		19%		33%	
Detention	0	1	10%		14%		7%		5%	
Suspend/Expel	0	1	28%		18%		46%		28%	
Apology to Victim	0	1	23%		20%		27%		25%	
Procedural Justice										
Procedural Justice	1	4	2.78	0.94	2.86	0.91	2.71	1.00	2.68	0.94

X̄/%: Percentages reported for binary variables, means for all other levels of measurement

Table 3: Ordinal regression results predicting satisfaction with administrative response (N=636)

	Model 1		Model 2		Model 3		Model 4	
	b/(se)	OR	b/(se)	OR	b/(se)	OR	b/(se)	OR
Sociodemographics								
Female	-0.00	1.00	-0.01	0.99	0.08	1.08	0.11	1.12
	(0.18)		(0.18)		(0.19)		(0.20)	
Black	-0.07	0.93	0.09	1.10	0.14	1.15	0.10	1.10
	(0.22)		(0.24)		(0.24)		(0.28)	
Asian	0.24	1.27	0.51	1.66	0.40	1.49	1.21*	3.35
	(0.39)		(0.42)		(0.46)		(0.60)	
Other race	-0.42	0.66	-0.36	0.70	-0.38	0.68	-0.28	0.76
	(0.31)		(0.28)		(0.28)		(0.34)	
Hispanic ethnicity	-0.21	0.81	-0.30	0.74	-0.26	0.77	-0.07	0.93
	(0.26)		(0.25)		(0.27)		(0.28)	
Years of teaching	0.01	1.01	0.01	1.01	0.02	1.02	0.01	1.01
	(0.01)		(0.01)		(0.01)		(0.01)	
Middle school	-0.01	0.99	0.02	1.02	0.03	1.03	0.03	1.03
	(0.15)		(0.16)		(0.17)		(0.18)	
Incident Characteristics								
Multiple offender			-0.38*	0.68	-0.49**	0.62	-0.33	0.72
			(0.16)		(0.16)		(0.18)	
Seriousness			-0.71***	0.49	-0.74***	0.48	-0.49***	0.61
			(0.08)		(0.08)		(0.10)	
Vic-Off. relation			0.11	1.11	-0.01	0.99	0.11	1.12
			(0.06)		(0.06)		(0.07)	
Assault event			0.31	1.36	-0.18	0.83	0.02	1.02
			(0.18)		(0.20)		(0.21)	
Harassment event			-0.04	0.96	-0.15	0.86	0.13	1.14
			(0.19)		(0.20)		(0.22)	
School Outcomes								
Investigation/Question					1.05***	2.84	0.77**	2.17
					(0.21)		(0.24)	
Detention					1.35***	3.84	0.72**	2.05
					(0.24)		(0.25)	
Suspension/Expulsion					2.20***	9.02	1.69***	5.40
					(0.21)		(0.23)	
Apology to victim					0.68**	1.98	0.20	1.23
					(0.20)		(0.20)	
Procedural Justice								
Procedural Justice							2.19***	8.97
							(0.18)	
Model χ^2 (d.f.)	5.3		92.3		208.9		261.6	
	(7 df)		(12 df)		(16 df)		(17 df)	
Pseudo R-squared	.00		.06		.15		.35	

Note: Unstandardized regression coefficients shown with odds ratios; Standard errors in parentheses
*p < .05. **p < .01. ***p < .001.

Table 4: Ordinal regression results estimating moderating effects (N=636)

	Model 4A	
	b/(se)	b/(se)
Seriousness	-0.56**	0.57
	(0.19)	
Investigation/Question	0.66	1.93
	(0.81)	
Detention	0.49	1.63
	(0.83)	
Suspension/Expulsion	1.27	3.57
	(0.72)	
Seriousness X Investigation/Question	0.04	1.04
	(0.27)	
Seriousness X Detention	0.08	1.08
	(0.27)	
Seriousness X Suspension/Expulsion	0.13	1.14
	(0.23)	
Model χ^2 (d.f.)	262.0	
	(20 df)	
Pseudo R-squared	.35	
	Model 4B	
	b/(se)	OR
Seriousness	-0.57	0.56
	(0.35)	
Procedural Justice	2.11***	3.29
	(0.40)	
Seriousness X Procedural Justice	0.03	1.03
	(0.12)	
Model χ^2 (d.f.)	260.5	
	(18 df)	
Pseudo R-squared	.35	
	Model 4C	
	b/(se)	b/(se)
Investigation/Question	-1.50	0.22
	(0.26)	
Detention	0.35	1.42
	(0.96)	
Suspension/Expulsion	1.06	2.88
	(0.84)	
Procedural Justice	1.94***	6.94
	(0.22)	
Investigation/Question X Procedural Justice	0.80**	2.23
	(0.30)	
Detention X Procedural Justice	0.16	1.17
	(0.31)	
Suspension/Expulsion X Procedural Justice	0.25	1.28
	(0.28)	
Model χ^2 (d.f.)	270.7	
	(20 df)	
Pseudo R-squared	.36	

Note: Unstandardized regression coefficients shown with odds ratios; Standard errors in parentheses
*p < .05. **p < .01. ***p < .001.