

THE IMPACT OF STUDENT THREATS AND ASSAULTS ON TEACHER
ATTRITION

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DANIELLE MARIE ZURAWIECKI

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APPROVED:

Anne Gregory, Ph.D.

Linda Reddy, Ph.D.

DEAN:

Stanley Messer, Ph.D.

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Abstract

High teacher turnover plagues many public schools in the United States. Student misbehavior is sometimes noted as a reason for teachers leaving the profession. Less known is the impact of serious aggressive student behavior, such as verbal and physical assault, on teacher attrition. The current study's participants included 2,904 consenting teachers who participated in the National Center for Education Statistics School and Staffing Survey 2007-2008 and the Teacher Follow-up Survey 2008-2009. Teachers reported instances of verbal and physical assaults and their professional status at a one year follow-up. They also reported on working conditions, such as administrative support. Using logistical regression and Hierarchical General Linear Modeling, the study found that teachers who experienced student threats and assaults were more likely to move to another school. Unexpectedly, these negative experiences with students did not increase the likelihood teachers exited the profession a year later. Yet, as anticipated, a greater level of administrative support perceived by teachers was associated with a decreased level of attrition for both teacher groups – those changing schools and those exiting the profession. That said administrative support was not found to buffer the attrition effects of teachers who experienced threats/assaults. These findings suggest that administrators may need to systematically intervene with teachers who experience student threat and assault. By doing so, administrators may help prevent teachers from ultimately deciding to relocate to another school – this is especially important for low income, low performing schools where students may be negatively impacted by high teacher turnover.

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The Impact of Student Threats and Assaults on Teacher Attrition

Introduction

Approximately 50 percent of new teachers leave the teaching profession within the first few years of teaching (Ingersoll & Smith, 2003). Many studies have shown that individual and school characteristics are linked to teacher attrition, such as years of teaching experience and school enrollment size (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Guarino, Santibanez, & Daley, 2006; Ingersoll, 2001; Kelly, 2004). Additional studies suggest that teachers' experience of student behavior in schools is related to whether or not they stay in the profession (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Ingersoll, 2001). However, less attention is paid to the effects of teacher safety on retention. Violence against teachers is not commonly conceptualized and examined in the empirical literature. Moreover, research tends to focus less on the experience of the school climate from the teachers' point of view.

The purpose of the current study is to examine whether violence against teachers increases the likelihood of teacher attrition, beyond a teacher's individual and school characteristics (e.g., years of teaching experience and school enrollment size). In addition, this study seeks to identify protective factors (i.e., administrative support) that may buffer against the effect of student violence on teacher attrition.

Teacher Attrition

Teachers are leaving their profession at a disproportionately higher rate than other professions (Liu & Meyer, 2005). Of the 3,380,300 public school teachers who were teaching during the 2007-2008 school year, 8% left the profession during the following year (Keigher & Cross, 2010). This rate is even higher among newer teachers – almost

half of all beginning teachers leave the profession after five years of teaching (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Ingersoll & Smith, 2003). Schools with higher turnover rates could result in students receiving less experienced teachers. Higher turnover creates instability in the school and classroom which could lead to less effective instruction (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009). Additionally, schools with high turnover are more likely to serve a larger population of low-performing, non-white, and low-income students (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009). This is of concern given that these students might have greatest need for more consistency in their educational experience.

Most research focuses on the relationship between teacher attrition and teacher's personal characteristics (i.e., what types of teachers have higher attrition) or school characteristics (i.e., what types of schools experience higher teacher attrition). At the individual level, teacher attrition is higher among younger and older teachers with middle-aged teachers remaining in the profession (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Guarino, Santibanez, & Daley, 2006). Less experienced teachers (i.e., one to three years of teaching) are also found to have higher turnover rates than more experienced teachers (Ingersoll, 2003; Leukens, 2004). Gender has produced inconsistent findings with some studies showing male teachers leave at higher rates and others showing females leave at higher rates (Guarino, Santibanez, & Daley, 2006; Ingersoll, 2001; Kelly, 2004; Kukla-Acevedo, 2009). Salary also impacts attrition. Teachers with low salaries tend to have higher attrition rates than teachers with high salaries (Boe et al., 1997; Ingersoll, 2011; Kelly, 2004)

At the school level, studies have found that smaller schools have higher levels of attrition (Ingersoll, 2001; Kelly, 2004). Conflicting information has been found about urban schools (Allensworth, Ponisciak, & Mazzeo, 2009; Guarino, Santibanez, & Daley, 2006; Smith & Smith, 2006). Researchers have thought that attrition in urban areas is more associated with poverty and teachers' perceptions of violence in the community and schools (Allensworth, Ponisciak, & Mazzeo, 2009; Guarino, Santibanez, & Daley, 2006; Smith & Smith, 2006). Boyd, Grossman, Ing, Lankford, and Wyckoff (2009) found that teachers working in schools with a higher proportion of Black and Hispanic students and lower achieving schools have higher rates of attrition. Taken together, individual (e.g., age and experience) and school-level characteristics (e.g., school enrollment size) are associated with teacher attrition. To understand predictors of teacher attrition, researchers need to account for these kinds of characteristics.

Teacher Safety

The Center for the Prevention of School Violence in North Carolina (2002) defines school violence as “any behavior that violates a school’s educational mission or climate of respect or jeopardizes the intent of the school to be free of aggression against persons or property, drugs, weapons, disruptions, and disorder.” The statement implies that school violence includes aggression and violence directed at teachers. Indicators of School Crime and Safety (2010) reported that during the 2007-2008 school year, approximately 6-10% of teachers were threatened with injury and between 2-5% were physically attacked. Additional reports have cited that in a sample of 2,870 teachers in Virginia, 2.9% of teachers were physically attacked by a student but the attack did not require a doctor, 19.9% reported being threatened by a student, 43.2% received obscene

remarks or gestures from a student, and 83.6% were spoken to in a rude or disrespectful manner by a student (Gregory, Cornell, & Fan, 2012). These researchers found that faculty threats occurred on average 3 per 1,000 students.

Additional school-level characteristics found to be associated with teacher attrition/retention are workplace conditions (Loeb, Darling-Hammond, & Luczak, 2005). Ingersoll and Smith (2003) identified working conditions as including student discipline problems, lack of support from school administration, poor student motivation, and lack of teacher influence over school-wide and classroom decision making. Unsafe working conditions in schools has been linked to teacher safety and negative associated effects (e.g., attrition, fear of the workplace, increased levels of stress, difficulty in teaching, lack of motivation to perform daily work, emotional exhaustion; Alonzo, Lopez-Castedo, & Juste, 2009; Donaldson & Johnson, 2010; Dworkin, Haney, & Telschow, 1998; Skaalvik & Skaalvik, 2011).

Research on school violence has also examined psychological impacts on teachers. Teachers have reported that violence in their schools creates more difficulty with teaching and a lack of motivation to perform daily work among the teaching staff (Alonzo, Lopez-Castedo, & Juste, 2009). Teachers exposed to aggression (verbal and physical) experience increased levels of fear and stress (Dworkin, Haney, & Telschow, 1988; Phillips & Lee, 1980). Teachers have also reported that they are concerned about their safety related to receiving verbal threats or attacks (Pietrzak, Petersen, & Speaker, 1998; Williams, Winfree, & Clinton, 1988). A teacher who experiences student aggression on an almost daily basis may have increased levels of stress, mental health concerns, lower levels of job satisfaction, and eventually these teachers may feel burnt

out (Gregory, Cornell, & Fan, 2012). These studies have indicated that violence in the schools and student verbal and physical aggression creates adverse effects for teachers.

Two studies from outside of the United States have focused specifically on the effects of student violence directed at teachers. Galand, Lecocq, and Philippot (2007) looked at a small sample of teachers in Belgium and the effects of student violence on teacher's professional disengagement. They found that student misbehavior, perceived violence, and verbal victimization were all associated with high levels of teacher disengagement. In Norway, Skaalvik and Skaalvik (2011) found that discipline problems in the classroom significantly predicted emotional exhaustion among teachers. Taken together, these studies offer preliminary evidence that lack of safety is associated with negative psychological effects for teachers.

Zeira, Astor, and Benbenishty (2004) examined school violence in Israel and homeroom teachers' perceptions about violence in their schools. The authors examined rates of violence against teachers in addition to teachers' thoughts about leaving the profession due to this violence. Their results revealed that of the 1,521 teachers sampled, 235 teachers considered leaving the profession because of the violence they experienced by students (15.5% of the sampled population). However, violence against teachers is less in Israel than in the United States – between 1996-2000, the average rate of crimes against teachers was 7.9% (Kaufman et al., 2001) while in Israel the reports of student violence against teachers was half that amount during the same time period (Zeira, Astor, & Benbenishty, 2004). These results are not applicable to the U.S. as the rates of violence against teachers are higher. While the Zeira, Astor, and Benbenishty (2004) study offers evidence of teachers considering leaving the profession due to student

directed violence, studies are needed that are more methodologically rigorous in which teacher behavior (i.e., actual departure from the profession) is examined as opposed to teacher thoughts about leaving.

Administrative Support

A number of risk factors contribute to teacher attrition making it essential to identify protective factors that can reduce negative outcomes. Rutter's (1985) definition emphasized the role protective factors have in influencing, modifying, ameliorating, or altering a response to a risk in the environment that predisposes a person to negative outcomes. Other definitions identify protective factors as those which help an individual to cope with extraordinary challenges and promote positive outcomes, while reducing the likelihood of negative consequences (Fergus & Zimmerman, 2005; Spencer et al., 2006). Taken together a protective factor would reduce a teacher's potential to leave the profession due to student threats and assaults by providing a coping mechanism.

Research on stress and coping provides a theoretical framework for determining protective factors. Psychological coping involves processing and appraising the situation as a threat (e.g., verbal and physical assaults) and then using cognitive and behavioral strategies (i.e., help-seeking behavior) to manage the problem and any resulting negative effects (Lazarus & Folkman, 1984). Coping with stressors affects the impact stress has on psychological well-being (Steptoe, 1991). Social support, one type of help-seeking behavior, has been established to reduce the impact of stressors (Cohen & Willis, 1985; Shumaker & Czajkowski, 1994). Studies involving teachers have determined that social support has reduced burnout and is more influential in buffering the impact of teacher

stress on burnout than other sources of stress (Greenglass et al., 1996, 1997; Pierce & Malloy, 1996).

Lack of administrative support has already been established as a factor that increases teacher attrition (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009). In Boyd et al. (2009) teachers were asked to identify what aspect of their job most influenced their decision to leave or to consider leaving the teaching profession. A little over 15% of teachers reported dissatisfaction with student behavior while over 40% identified dissatisfaction with the administration as the most important factor.

Due to the negative influence lack of administrative support can have on teacher attrition rates, researchers have begun asking how and if administrative support can be used to decrease teacher attrition. Tickle, Chang, and Kim (2011) used data from the Schools and Staffing Survey 2003-2004 and found that administrative support was a significant predictor of job satisfaction and intent to stay in teaching. They suggest that one way to increase teachers' job satisfaction may be realized through perceived administrative support which may in turn reduce attrition. This has been echoed by other scholars (Choi & Tang, 2009; Galand, Lecocq, & Philippot, 2007).

Galand, Lecocq, and Philippot (2007) found that better relationships among colleagues and with school leadership were associated with lower teacher disengagement. They speculate that teachers experience negative emotional and psychological effects from victimization which made lead to their decision to leave, and that school support may serve as a protective factor for psychological well-being and teacher disengagement.

Skaalvik and Skaalvik (2011) found that teachers who had higher levels of job satisfaction and increased feelings of belongingness also had an increased motivation to

remain in the teaching profession. They found that supervisory support was predictive of belonging and the authors further suggest using belonging as a barrier against emotional exhaustion. They suggest that school administrators should “pay more attention to teachers’ feeling of belonging, emotional exhaustion, and job satisfaction” (p. 1036). Taken together, these studies are suggestive that support from administration may moderate the effects of teacher victimization. However, as of yet no studies have examined administrative support specifically in relation to teacher safety in the United States.

Summary

In summary, teacher attrition rates are extraordinarily high among new and young teachers (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Guarino, Santibanez, & Daley, 2006; Ingersoll, 2003; Leukens, 2004). Previous research indicates that student violence directed at teachers increases teacher stress and impairs teacher emotional well-being (Buck, 2006; Galand, Lecocq, & Philippot, 2007; Skaalvik & Skaalvik, 2011), and support from administration may reduce these difficulties and foster well-being. The extant literature has shown that student misbehavior increases teacher attrition rates (Boyd et al., 2009; Ingersoll, 2001); however, the effects of more serious student behavior, such as verbal and physical assault on teacher attrition rates are not known. Nor is it known what supportive effects administration might have on keeping teachers who experience victimization. Two studies have examined the impact teacher victimization has on motivation to leave teaching (Galand, Lecocq, & Philippot, 2007; Skaalvik & Skaalvik, 2011); however, these studies have not empirically examined attrition linked to victimization rates. Investigating teacher data at multiple time points

over several years allows examination of the link between student threats and assaults and actual attrition.

Hypothesis 1: It is anticipated that teachers who report being threatened or assaulted by students are more likely to leave teaching. **Hypothesis 2:** It is also anticipated that teachers who are the targets of student threats and assaults and have higher levels of administrative support will be less likely to leave the profession than those who have lower levels of administrative support. In other words, we ask, “Does administrative support moderate the link between student threat and discipline problems (threatening to injure or physically assault a teacher) and teacher attrition (teachers leaving the profession)?” These relationships will hold when taking into account individual teacher characteristics and school characteristics (e.g., age, years of teaching experience, school size, and urbanicity).

Methods

Participants

The data used in this study were collected through the 2007-2008 administration of the Schools and Staffing Survey (SASS) and the 2008-2009 administration of the Teacher Follow-up Survey (TFS). SASS and TFS were conducted by the National Center for Education Statistics (NCES) to collect data on public, charter, Bureau of Indian Affairs (BIE), and private schools in the United States. These data were collected on elementary and secondary schools. SASS contains the nation’s largest survey of K-12 teachers, schools, districts, and administrators. The SASS 2007-2008 administration consisted of five types of questionnaires: district, principal, school, teacher, and school library media center.

The schools and participants sampled were designed to provide estimates of school characteristics and to balance the samples in SASS. To obtain a representative teacher sample, schools with a larger number of teachers within that school were more likely to be sampled, although schools of all enrollment sizes were sampled. Teachers within schools were sampled to include at least one and no more than 20 teachers per school, with an average of between 3 and 8 teachers per school. The selected samples included approximately 9,800 public schools, 180 BIE schools, and 2,940 private schools, 5,250 public school districts, 9,800 public school principals, 180 BIE school principals, 2,940 private school principals, 47,440 public school teachers, 750 BIE teachers, and 8,180 private school teachers.

The Teacher Follow-up Survey (TFS) was conducted in 2008-2009 and consisted of four questionnaires. Two questionnaires were for first-year public school teachers in the 2007-2008 SASS and two were for the remaining respondents. Within both of those groups, one questionnaire was for current teachers and one for former teachers. The TFS was specifically designed to measure teacher attrition rates. The TFS collected data on teachers who left the teaching profession, teachers who moved to another school and teachers who stayed in the same school as the previous year. All eligible teachers who responded to SASS 2007-2008 were eligible for TFS. Initially, 4,621 public school teachers completed TFS. Participants in this study were all individuals included in the TFS. The variables were analyzed for missing data and 843 individuals were removed from the analysis due to missing responses for the following variables: gender, salary, percentage of racial/ethnic minority students, teacher's race, teacher report of student threats/assaults, and perception of administrative support. Analyses of the remaining

TFS data revealed approximately three-fourths of the teachers were from different schools. In 30% of schools, however, data was nested and nonindependence of report violates assumptions in ordinary least squares analysis. The numbers of nested teachers ranged from 585 schools with 2 sampled individuals to 1 school with 6 sampled individuals ($M = 2.23$). Therefore, a random generator (www.randomizer.org/form.htm/) was used in the nested schools to randomly select one teacher from each school in TFS. The final sample consisted of 2,904 teachers. Noteworthy was that 702 teachers (24%) left the profession and 565 teachers (20%) moved to another school.

Teacher and school demographics were obtained from teacher reports. Descriptive statistics for the sample of teachers are reported in Table 1. Of the teachers, 73% were female and 27% were male. Based on teacher self-report, the study sample was 85% Caucasian, 7% African-American, 5% Hispanic, and 3% Other (Asian/Pacific Islander, American Indian, and more than 1 race). The average teacher was 38 years old, had 9.5 years of teacher experience, and earned approximately \$42,000. School demographics obtained from the SASS data indicated the schools had an average enrollment size of 500-749 (range 1-49 to 2,000 or more), and approximately 45% of students enrolled in the free and reduced price lunch program (range 0% to 100%), 43% of racial/ethnic minority students (range 0% to 100%). Most schools were categorized as “rural” ($n = 930$, 32%), but 697 (24%) were “urban” and 785 (27%) were “suburban.”

Procedures

The 2007-2008 SASS used a mail-based survey, with telephone and in-person follow-up (Tourkin et al., 2010). Sampled teachers were mailed questionnaires and in-person follow-up was conducted for schools that had not returned the questionnaires. In

addition, schools received reminder phone calls. The first questionnaires were mailed in September 2007 with data collection ending in June 2008. The response rates ranged from 72% for private school principals to 88% for public school districts. In February 2008, all sampled teachers from the 2007-2008 SASS were emailed or mailed the questionnaires (Graham et al., 2011). Four questionnaires comprised the 2008-2009 Teacher Follow-up Survey. Two were for beginning teachers from the 2007-2008 SASS data and two were for the remaining sample. Of those groups, one was for current teachers and one for former teachers. In February 2009, all teachers selected for the TFS sample were mailed an invitation for participation. Teachers also received follow-up telephone calls. Teachers who remained in the profession and teachers who moved to another school completed the current teacher questionnaire while teachers who left the profession completed the former teacher questionnaire. The overall response rate was 87.9% (current teachers 88.2% and former teachers 84.7%).

The SASS data was obtained through the application of a restricted-use data set. Rutgers University Institutional Review Board approved the proposed study and then an application was submitted to the Institute of Education Sciences (IES) of the United States Department of Education. Approval for the proposed study was granted on November 7, 2011.

Measures

Individual-level characteristics. At the individual level, the SASS dataset provided information on variables associated with teacher attrition. Teachers provided responses regarding their age, years of teaching experience, gender, and salary.

School-level characteristics. To examine the factors that account for variation across schools, the SASS dataset provided information on school-level characteristics. Teachers provided responses about the percentage of minority students in their school, school enrollment size, urbanicity, and the percentage of students enrolled in free and reduced price lunch.

Teacher report of student threats and assaults. The SASS dataset offered teacher-reported measures of school climate and teacher attitudes. Specifically, teachers provided their responses regarding student threats and assaults. For example, they answered the following: “Has a student from this school threatened to injure you in the past 12 months?” and “Has a student from this school attacked you in the past 12 months?” Teachers had the option to answer “yes,” “no,” or “NA.” These responses indicated which teachers were threatened or assaulted by students in the past 12 months. Due to the low frequency of affirmative answers, threats and assaults were analyzed by combining them into one variable.

Teacher perception of administrative support. Teachers provided their beliefs about administrative support. Teachers responded to five questions on a 4-point scale ranging from strongly agree to strongly disagree. The administrative support scale includes the following items: (1) The school’s administration’s behavior toward the staff is supportive and encouraging; (2) My principal enforces school rules for student conduct and backs me up when I need it; (3) The principal knows what kind of school he or she wants and has communicated it to the staff; (4) The teachers at this school like being here; I would describe us as a satisfied group; and (5) I like the way things are run in this school and ranges from strongly disagree (1) to strongly agree (4). Two of the five items

on this measure were used previously in a study by Tickle and Chang (2011), and Tickle and Chang had selected them based on results from their principal component analysis. The appropriate items were reverse scored to provide an administrative support scale. Furthermore, the five items were found to be internally consistent in this study (Cronbach's $\alpha = .86$). The item ratings were averaged for each teacher to provide a perception of administrative support. A higher administrative support score indicated greater belief in administrative support

Teacher attrition. In the Teacher Follow-Up Survey from 2008-2009, participants reported if they had remained in teaching, moved to another school or had left the profession. This measure was designed to measure attrition rates. The present study focused on those teachers who left the teaching profession (leavers), those who moved to another school (movers), and those who stayed in the same school as the previous year (stayers).

This study further examined teacher reports on reasons for leaving their position for descriptive purposes. Teachers indicated the level of importance each reason played in their decision to leave. Items were rated from "not at all important" (1) to "extremely important" (5), such as "Because I was dissatisfied with workplace conditions" and "Because I was dissatisfied with the lack of support I received from the administration from last year's school."

Data Analytic Plan

Primary data analysis involved examining descriptive statistics and correlations among the variables and conducting logistic regression analyses with the attrition outcome. *Leavers* are those teachers who left the profession. *Movers* are those teachers

who moved to a different school. *Stayers* are those teachers who remained in the same school. To provide a complete account of teacher turnover, movers and leavers were combined into one variable. *Combined* are those teachers who either left the profession or moved to a different school. All regression analyses included total years of teaching experience, age, gender, salary, percentage of racial minority students, percentage of students receiving free and reduced price lunch, school enrollment size, and urbanicity to assess whether individual and school-level factors were linked with attrition outcomes.

For the logistic regression analyses, blocks of predictors were entered consecutively. The first block included the covariates of total years of teaching experience, age, gender, and salary as well as school-level factors: percentage of racial minority students, percentage of students enrolled in free and reduced price lunch, school size, and urbanicity. It was important to take these factors into account as covariates to identify whether student threats and assaults explained variance beyond that explained by these well-established individual and school characteristics known to predict attrition. The second block included the measure of student threats and assaults, the third block included the measure of administrative support, and the fourth block included the interaction term (e.g., Threats/Assaults x Administrative Support).

Gender (male, female) was coded dichotomously (0 versus 1). The following variables were treated as continuous scores: total years of teaching experience, age, salary, percentage of racial minority students, and percentage of students enrolled in free and reduced price lunch. The following variables were treated as categorical: school size and urbanicity. School size was grouped according to the following: 1-49, 50-99, 100-149, 150-199, 200-349, 350-499, 500-749, 750-999, 1000-1199, 1200-1499, 1500-1999,

and 2000 or more enrolled students and urbanicity was categorized as: 1 = city, 2 = suburb, 3 = town, and 4 = rural.

Results

Descriptive Findings

Descriptive factors for leaving. Teachers reported reasons for leaving the profession or moving to a different school in the Teacher Follow-up Survey. Out of the original sample of 2,904 teachers, 649 leavers and 463 movers provided a reason for leaving/moving. The most common reason for considering *leaving* was identified as deciding “it was time to retire” (6.8%); 0.6% identified dissatisfaction with workplace conditions as the most important reason and 1.1% indicated student discipline problems. Teachers indicated the level of importance each reason played in their decision to leave. Less than 5% of leavers indicated workplace conditions (e.g., facilities, classroom resources, school safety) and student discipline problems were important in their decision to leave the profession.

Workplace conditions and student discipline problems were not identified as the most important reason for *moving* schools. For movers, less than 4% of teachers indicated workplace conditions or student discipline problems were important in their decision to move schools. The most important reasons teachers indicated in their decision to move schools were related to geographical moving (4.6%) and “other” (4.5%).

Sample descriptives. Leavers tended to be female (75%) and Caucasian (84%). They were older, had more years of teaching experience, and had a higher salary than teachers who remained in the profession ($t(2337) = -22.20, p = .00$; $t(2337) = -17.68, p =$

.00; $t(2337) = -9.36, p = .00$, respectively) as shown in Table 1. Movers also tended to be female (75%) and Caucasian (82%). Movers taught in schools with greater percentages of racial/ethnic minority and students enrolled in free and reduced price lunch, $t(2200) = -2.36, p = .02$ and $t(2200) = -2.38, p = .02$.

When movers and leavers were considered together as a group, they were predominantly female (75%) and Caucasian (84%) compared to stayers. The movers/leavers had more years of teaching experience ($t(2902) = -15.19, p = .00$), were older ($t(2902) = -11.05, p = .00$), and earned a higher salary ($t(2902) = -6.70, p = .00$), compared to those teachers who remained in the same school. Movers/leavers also tended to teach in smaller schools when compared to stayers, $t(2902) = 2.89, p = .004$.

Table 2 shows the intercorrelations among variables. Teacher reports of student threats and/or assaults was significantly correlated with teachers who moved to another school and the combined movers/leavers variable ($r = .07, p = .00$ and $r = .04, p = .00$); however, the association was not significant when leavers were analyzed separately ($r = .02, ns$). Leavers, when compared to stayers, tended to have more years of teaching experience, be older, and earn a higher salary ($r = .42, p = .00$; $r = .34, p = .00$; $r = .19, p = .00$, respectively). Leavers also worked in smaller schools and reported lower administrative support ($r = -.05, p = .02$ and $r = -.10, p = .00$, respectively). No association was found for leavers with gender, percentage of racial/ethnic minority students, percentage of students enrolled in free and reduced price lunch, urbanicity, teacher reported ethnicity, and teacher reports of student threats/assaults or teacher ethnicity.

In contrast to leavers, movers tended to work in schools with a greater percentage of students enrolled in free and reduced price lunch ($r = .05, p = .02$) and of racial/ethnic minority students ($r = .05, p = .02$). Similarly to leavers, movers tended to work in smaller schools ($r = -.05, p = .03$). Movers also reported experiencing student threats/assaults ($r = .07, p = .00$) and lower administrative support ($r = -.19, p = .00$). None of the individual-level characteristics or teacher race was associated with movers.

The combined (movers/leavers) teacher groups, when compared to stayers, had more years of teaching experience ($r = .27, p = .00$). They also were older ($r = .20, p = .00$), more likely female ($r = .04, p = .04$) and more highly compensated ($r = .12, p = .00$). The combined group tended to work in smaller schools ($r = -.05, p = .00$). Furthermore, the combined group tended to report experiences of student threat/assault ($r = .04, p = .00$), compared to stayers. The combined teacher group also tended to reported lower administrative support ($r = -.15, p = .00$), compared to stayers. School-level characteristics of percentage of racial/ethnic minority students, percentage of students enrolled in free and reduced price lunch, and urbanicity were not correlated with the combined teacher variable. Teacher-reported administrative support varied slightly among leavers ($M = 3.26, SD = .59$), movers ($M = 3.24, SD = .59$) and leavers and movers combined ($M = 3.22, SD = .61$). Teacher perception of administrative support on a 4-point scale revealed teachers from all the groups mostly agreed that their administrators were supportive.

The correlations of student threats and assaults revealed that teachers' experience of student threats and assaults over the past 12 months was related to school-level characteristics only. Schools in which teachers reported threat/assault had a greater

percentage of racial/ethnic minority students ($r = .10, p = .00$), greater percentage of students enrolled in free and reduced price lunch ($r = .11, p = .00$), had fewer enrolled students ($r = -.09, p = .00$), and were located in more urban areas ($r = -.04, p = .04$). Additionally, teachers reporting student threats and assaults also tended to report less administrative support ($r = -.19, p = .00$). Teachers' experience of student threats and assaults was not related to individual teacher characteristics (i.e., years of teaching experience, age, gender, salary, or teacher's race/ethnicity).

Table 1
Descriptive Analysis of Teacher Attrition

Variable	Leavers	Movers	Combined	Stayers
Total sample size	702	565	1267	1637
Male (%)	174 (24.79)	142 (25.13)	316 (24.94)	465 (28.41)
Female (%)	528 (75.21)	423 (74.87)	951 (75.06)	1172 (71.59)
White (%)	589 (83.90)	461 (81.59)	1050 (83.87)	1383 (84.48)
African American (%)	48 (6.84)	45 (7.96)	93 (7.34)	102 (6.23)
Hispanic (%)	29 (4.13)	36 (6.37)	65 (5.13)	90 (5.50)
Race "Other" (Asian/Pacific Islander, American Indian, More than one race)	36 (5.13)	23 (4.07)	59 (4.66)	62 (3.79)
Years teaching mean	17.21	6.82	12.58	6.38
Age mean	45.50	34.62	40.65	35.26
Salary mean	46172.09	40307.59	43556.90	39948.19
Threatened/assaulted past 12 months (%)	83 (11.82)	116 (20.53)	199 (15.71)	205 (12.52)
Total Administrative Support Scale mean	3.26	3.23	3.22	3.38

Table 2
Correlations among Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Leavers (1)/Stayers (0)	—	. ^a	1.00**	.42**	.34**	.04	.19**	-.03	-.02	-.05*	-.01	-.01	-.03	.01	.03
2. Movers (1)/Stayers (0)		—	1.00**	.02	-.02	.03	.01	.05*	.05*	-.05*	-.03	-.03	.02	.03	.01
3. Combined (1)/ Stayers (0)			—	.27**	.20**	.04*	.12**	.01	.02	-.05**	-.02	-.02	-.01	.02	.02
4. Years teaching experience				—	.78**	.04*	.60**	-.06**	-.03	-.04*	-.04*	.04**	-.03	-.03	-.003
5. Age					—	.03	.49**	-.02	.003	-.05**	-.04*	.01	-.01	.01	.01
6. Gender(1 = female; 0 = male)						—	.03	.03	.04*	-.09**	-.05**	-.04	.002	.05*	.01
7. Salary							—	.12**	-.04*	.11**	-.25**	-.02	.02	.01	.01
8. % students of racial/ethnic minority								—	.52**	.05**	-.39**	-.37**	.22**	.27**	.11**
9. % students enrolled in free lunch									—	-.26**	-.06**	-.23**	.14**	.17**	.06**
10. School size										—	-.26**	-.02	.03	-.02	.03
11. Urbanicity											—	.16**	-.12**	-.10**	-.04*
12. White												—	-.54**	-.47**	-.47**
13. Hispanic													—	-.06**	-.05*
14. Black														—	-.06*
15. Other (Asian/Pacific Islander, American Indian, or More than 1 Race)															—
16. Threatened/ attacked															
17. Administrative Support															

* $p < .05$.

** $p < .01$.

a. Cannot be computed because at least one of the variables is constant.

Table 2 – Continued
Correlations among Variables

	16	17
1. Leavers (1)/Stayers (0)	.02	-.10**
2. Movers (1)/Stayers (0)	.07**	-.19**
3. Combined (1)/Stayers (0)	.04*	-.15**
4. Years teaching experience	-.01	-.05**
5. Age	.02	-.04
6. Gender(1 = female; 0 = male)	.01	-.03
7. Salary	.02	-.07**
8. % students of racial/ethnic minority	.10**	-.16**
9. % students enrolled in free lunch	.11**	-.13**
10. School size	-.09**	-.01
11. Urbanicity	-.04*	.06**
12. White	.002	.04*
13. Hispanic	-.03	.01
14. Black	.03	-.04*
15. Other (Asian/Pacific Islander, American Indian, or More than 1 Race)	-.001	-.02
16. Threatened/ attacked	—	-.19**
17. Administrative Support		—

* $p < .05$.

** $p < .01$.

a. Cannot be computed because at least one of the variables is constant.

Predicting the Odds of Leaving the School

Table 3 presents the effects of individual and school-level characteristics in the logistic regression model that predicts attrition. The odds ratio (OR) associated with each variable and the 95% confidence intervals for each OR represent the effect of an individual predictor (e.g., age) on the dependent variable (e.g., attrition). If an OR is larger (or smaller) than 1.00, it represents the increase (or decrease) of the chance of a teacher leaving the profession for a unit increase (or decrease) on the predictor's scale. If the OR for a predictor variable is statistically different from 1.00, the 95% confidence interval does not contain 1.00.

Results showed for every one unit higher of teaching experience, teachers were 1.07 times more likely to leave/move the school ($OR = 1.07, p = .00$). A larger school size was associated with a lower chance of leaving/moving ($OR = .96, p = .03$). When teachers reported higher administrative support, they tended to have a lower chance of leaving/moving the school ($OR = .63, p = .00$). Teachers who earned more tended to have a greater chance of leaving/moving ($OR = 1.00, p = .003$). The highest OR for movers/leavers was student threats/assaults with a teacher who experienced student threats/assaults close to one and a third times more likely to move to another school or leave the profession ($OR = 1.3, p = .02$). Nonsignificant findings were found for age, gender, percentage of minority students, percentage of students enrolled in free and reduced price lunch, urbanicity, and the interaction term (Administrative Support X Threats/assaults).

When leavers were analyzed separately (Table 4), teachers were 1.08 times more likely to leave the profession with one unit higher of teaching experience ($OR = 1.08, p =$

.00). A teacher with a one unit higher administrative support scale was .73 times less likely to leave the profession ($OR = 0.73, p = .00$). Age, gender, percentage of minority students, percentage of students enrolled in free and reduced price lunch, school enrollment size, student threats/assaults, and the interaction (Administrative Support X Threats/assaults) term were all nonsignificant.

Movers were 1.02 times more likely to move to another school with one unit higher of teaching experience ($OR = 1.02, p = .01$; Table 5). Older teachers were less likely to move to another school ($OR = .98, p = .01$) and teachers from larger schools were less likely to move ($OR = .95, p = .04$). When teachers reported higher administrative support, they tended to have a lower chance of moving to another school ($OR = .54, p = .00$). Results revealed the highest OR for movers were student threats and assaults. A teacher who experienced student threats and/or assaults was close to one and a half times ($OR = 1.44, p = .01$) more likely to move to another school. Gender, salary, percentage of minority students, percentage of students enrolled in free and reduced price lunch, and the interaction term were nonsignificant. For leavers, movers, and the combined group, the interaction term (Administrative Support X Threats/Assaults) was nonsignificant. Administrative support was not found to moderate the effect of threats/assaults on teacher attrition (Tables 3-5).

Table 3
OR for Predictors of Attrition (Combined)

N = 2904

Variables ^a	OR	95% CI
Years teaching experience	1.066*	(1.053-1.080)
Age	.994	(.985-1.004)
Gender	1.107	(.929-1.319)
Salary	1.000*	(1.000-1.000)
%minorities	1.002	(1.000-1.005)
%free lunch	.999	(.996-1.003)
School size	.962*	(.929-.996)
Urbanicity	.964	(.895-1.040)
Threats/assaults	1.304*	(1.041-1.632)
Admin support	.625*	(.551-.709)
Interaction ^b	.972	(.708-1.333)

Note. OR = odds ratio; CI = confidence interval.

*p < .05.

^a. Attrition coded as Leavers/Movers = 1 and Stayers = 0

^b. Interaction term = Administrative support X threat/assaults

Table 4
OR for Predictors of Attrition (Leavers Only)

N = 2339

Variables ^a	OR	95% CI
Years teaching experience	1.084*	(1.068-1.100)
Age	1.008	(.996-1.020)
Gender	1.120	(.893-1.405)
Salary	1.000*	(1.000-1.000)
%minorities	1.003	(.999-1.006)
%free lunch	.996	(.992-1.001)
School size	.970	(.927-1.015)
Urbanicity	.984	(.893-1.085)
Threats/assaults	1.146	(.856-1.534)
Admin support	.728*	(.622-.852)
Interaction ^b	1.033	(.688-1.549)

Note. OR = odds ratio; CI = confidence interval.

*p < .05.

^a. Attrition coded as Leavers = 1 and Stayers = 0

^b. Interaction term = Administrative support X threat/assaults

Table 5
OR for Predictors of Attrition (Movers Only)

N = 2202		
Variables ^a	OR	95% CI
Years teaching experience	1.022*	(1.004-1.040)
Age	.983*	(.971-.995)
Gender	1.121	(.898-1.398)
Salary	1.000	(1.000-1.000)
%minorities	1.002	(.998-1.006)
%free lunch	1.002	(.997-1.006)
School size	.954*	(.913-.997)
Urbanicity	.932	(.848-1.025)
Threats/assaults	1.435*	(1.096-1.878)
Admin support	.542*	(.463-.633)
Interaction ^b	1.016	(.700-1.476)

Note. OR = odds ratio; CI = confidence interval.
 *p < .05.

^a. Attrition coded as Movers = 1 and Stayers = 0

^b. Interaction term = Administrative support X threat/assaults

Post-hoc Analyses

In the original data collection, in some schools teachers were “nested” in schools (e.g., up to 6 teachers per school). Given that teacher attrition is a dichotomous variable (i.e., remained in the profession or exited from the profession) hierarchical general linear modeling (HGLM) was conducted to account for the nested data. Nested data occurred in 32% of the original sample: Six-hundred and three schools had 2 teachers from the same school, 110 schools had 3 teachers from the same school, 23 schools had 4 teachers from the same school, 3 schools had 5 teachers from the same school, and 1 school had 6 teachers. Having multiple teachers in schools allowed for the use of a mean of administrative support across teachers. A mean across teachers from the same school reflects the shared experience of administrative support in the school. For teacher attrition, Level-1 control variables included individual characteristics (e.g., sex, age, and years of teaching experience) and Level-2 control variables included school characteristics (e.g., urbanicity, school enrollment size, and administrative support). Two

sets of HGLM were conducted. The first set examined the threats and assaults variable as a predictor of movers versus stayers. The second set used HGLM to examine threat and assault as a predictor of leavers versus stayers. When accounting for nesting of teachers in schools, student threats and assaults was associated with moving ($\beta = 0.59, p = 0.002$) and administrative support aggregated as a mean at the school level was associated with moving ($\beta = -.36, p = 0.004$). In other words those who perceived more administrative support were less likely to move. Administrative support did not moderate the link between threats/assaults and teachers moving as shown through the nonsignificant cross-level interaction (i.e., administrative support at level 2 did not predict the slope of threat/assault at level 1). This lack of moderation corroborates the previously reported logistic regression findings for which nesting was removed through a random selection of teachers. When accounting for nesting of teachers in schools, student threats and assaults was not associated with leaving.

Discussion

The current study provided insights into teacher attrition. It found that administrators may need to consider two different groups of teachers who leave their schools: a) movers – teachers who leave one school for another school and b) leavers – teachers who leave the profession entirely. Only a small percentage of teachers who left the profession listed workplace conditions or student discipline as one of the important reasons for leaving. This was corroborated in statistical analyses in which report of threats/assaults did not increase the probability of a teacher leaving the profession. Additionally, teachers' self-reported rationale for leaving suggests that a majority of teachers left due to retirement. A more concerning trend arose for those teachers who

moved from one school to another. The experience of threats/assaults was linked to a greater likelihood of their moving schools. Movers, on average, had 7 years of teaching experience compared to the 17 years of experience of leavers. This suggests that movers had many potentially viable years of teaching left in their careers and their move to another school could be disruptive to students and fellow teachers alike.

At the same time, the leavers and movers teacher groups had some commonalities, as shown in the study findings. The statistical analyses demonstrated that perceived administrative support was linked to both a) teachers exiting the profession and b) teachers moving schools. Specifically, more support was associated with a lower chance of leaving or moving. This finding held above and beyond the effects of individual teacher characteristics (e.g., gender and years of teaching experience) and school demographics (e.g., school size and urbanicity). Unexpectedly, administrative support did not moderate the effects of student threat/assault on teacher attrition.

Also noteworthy was that individual teacher and school characteristics were associated with teacher reports of threats and assaults. Fewer years of teaching experience, being older, being female, and earning a higher salary were associated with reports of threats and assaults as well as teaching in smaller and more urban schools. These results are important to examine when identifying prevention, intervention, and postvention strategies related to teachers' experience of student threats and assaults.

Movers

The study findings related to the movers group offers compelling considerations for administrators. Teachers' leaving one building for another building is particularly important with regard to the needs of high poverty schools. Results revealed that

teachers were more likely to move from schools that had higher percentages of low income and ethnic minority students. Many of these movers may be highly capable teachers, which would result in a “brain drain” from high needs schools. Greater instability in the teaching force may be related to lower consistency and quality in classroom instruction for low income students of color. Students in grade levels with higher teacher turnover score lower in both English language arts and math, particularly in schools with more low-performing and Black students (Ronfeldt, Loeb, & Wyckoff, 2012). As a result, administrators need to seriously consider what factors are increasing or reducing the likelihood a teacher decides to move to another school.

Overall, this study found that movers themselves did not identify workplace conditions or student discipline problems as a reason for changing schools. Rather, they attributed the most important reason for moving schools to geographical relocation. These results reveal that additional inquiry is needed given the statistical analyses based on a longitudinal design found that the experience of student threats and assaults was related to a teacher’s decision to move a year later. This begs the questions: Are movers not accurately reporting what drives their decision to move? Or, are movers not aware of the impact that student threats/assaults have on their decision to move?

The current study contributes new knowledge about why some teachers move (i.e., student threat/assault), yet additional research is needed in this area. Little is known about why teachers move and how to prevent highly effective teachers from moving. Identifying specific ways to address movers’ experiences is vital to addressing the impact of student threats/assaults. Movers may be seeking reduction in stress or improved support. Current practices to reduce attrition do not take into account those teachers who

transfer to other schools (Miner, 2008). Future research should identify ways to incentivize highly effective teachers from moving to another school, especially schools in high poverty areas. The greatest number of children who could benefit from effective teachers is enrolled in low-income schools which disproportionately have a higher percentage of new and inexperienced teachers.

Administrative Support

The current study examined the role of administrative support in preventing teacher attrition. In a longitudinal design following teachers over one year, the study showed that positive perceptions of administrative support was associated with a lower chance of moving one year later. This finding held above and beyond the sociodemographic characteristics of schools. The strength of the finding rests in the study's longitudinal design, in that administrative support predicts attrition a year later. These findings build on previous research that has documented a similar phenomenon in concurrent research designs—namely, the influence of administrators on teacher retention decisions during the same school year (Boyd et al., 2009; Guarino, Santibanez, & Daley, 2006).

Different types of social support may help explain why administrative support is related to decreasing attrition. The current study measured administrative support by examining the following questions: (1) The school's administration's behavior toward the staff is supportive and encouraging; (2) My principal enforces school rules for student conduct and backs me up when I need it; (3) The principal knows what kind of school he or she wants and has communicated it to the staff; (4) The teachers at this school like being here; I would describe us as a satisfied group; and (5) I like the way things are run

in this school. The administrative support scale included a range of constructs related to social support, authoritative discipline, and communication. This range suggests administrators may need to be multi-faceted in how they support teachers. This would include communicating a strong vision, consistently implementing rules, and fostering collegial support.

Teachers may go to administrators for different types of support. Administration may provide this support by listening and providing empathy (Beehr & McGrath, 1992; Caplan, Cobb, French, Harrison, & Pinneau, 1975; Kaufmann & Beehr, 1986; McIntosh, 1991) or through communication. Administration with an open style of communication may strengthen teachers' belief that administrators will provide their support as well as back teachers up when needed. Administrative support that covers multiple areas may be more effective in increasing teacher retention rates.

The present study also examined the role of administrative support in moderating the effects of student threats/assaults. While this study confirmed the role of administrative support in reducing teacher attrition, results indicated that support from administration did not provide teachers with a protective barrier against the experience of student threats/assaults. Schools are systems; as such multiple influences interact and affect teachers. Administrative support alone may not be enough to buffer teachers from the negative effects of threats and assaults.

While support from administration can reduce teacher attrition, the organization of the school as a community may serve as a more comprehensive protective function for teachers who experience student threats and assaults. Payne, Gottfredson, and Gottfredson (2003) described communal school organization as indicated by supportive

relationships among teachers, administrators, and students, a common set of goals and norms, and a sense of collaboration and involvement. Schools that are more communally organized have lower levels of teacher victimization and student delinquency. This emphasizes the role that school climate may have in reducing teacher attrition.

Different types of support are also important to consider as potential protective factors. Support from colleagues may provide a buffering function that support from administration cannot. Connectedness to colleagues has been examined as a way to reduce attrition and to aid in creating a positive and supportive school community (Shernoff et al., 2012; Shernoff et al., 2011), and may be one possible mechanism for protecting teachers from the effects of student threats and assaults. Teachers may feel that their administration supports them, communicates well with them, and enforces school rules; however, when they experience student threats and assaults they may go to colleagues for support. Additionally, it is possible that teachers cope with these experiences through support from family and friends outside of the school.

Movers and Threats and Assaults

Teachers were more likely to move schools if they reported being threatened or assaulted by students. This highlights the need to consider teachers' experience of safety in the school. It is important to identify what can be done to help teachers prevent the experience of threat and assault in the first place, to help restore relationships after such an experience, to help administrators respond in a way that can help reinstate a sense of belonging and safety, and to develop mandated follow-up into policy for both teachers and students.

Although this study does not identify the specific mechanism by which movers are impacted by student threats and assaults, it provides guidance on where to look. Understanding teachers' decisions to move, specifically for those who experience student threats and assaults, may help prevent these teachers from moving. It is possible that some teachers may feel less connected to their school after they experience threat or assault, leading to increased turnover. In other words, movers may have a decreased sense of belongingness to the school which increases their desire to leave the school (Skaalvik & Skaalvik, 2011). Although teachers may identify liking the way the school is run, they may not feel connected to the staff, students, or community.

Another possible explanation to help make sense of movers' experience of student threats and assaults is related to defensive mechanisms. Teachers may use defensiveness to minimize the impact student threats/assaults have on their decision to leave. More specifically, movers may use defensive responses to protect their self-worth; however, these same biases may also shield movers from understanding the impact of potentially threatening information (i.e., student threats and assaults; Lord, Ross, & Lepper, 1979). As identified in the present study, geographical relocation was listed as the most common reason for moving. Teachers may offer a geographical rationale for needing to move, in order to deflect any critique that they moved because they were unable to manage student discipline problems which resulted in student aggression toward them.

Future research should identify the specific type of administrative support that is linked to reduced attrition rates, especially for those teachers who move to other schools as a result of student threats and assaults. Moreover, additional research is needed on effective ways administrators can respond after threats and assaults. A future qualitative

study might help determine what kind of help-seeking teachers display after a threat/assault and how colleagues and administration respond. A closer, more micro-level analysis might identify supportive responses that help teachers heal, feel safe, and stay motivated to remain in their school.

Correlates of Teacher Attrition

The current study identified correlates of teacher attrition. Individual teacher characteristics associated with increased attrition were more years of teaching experience, being older, being female, and earning more money. School-level factors associated with higher attrition rates were school size. Specifically, teachers in smaller schools tended to leave the profession more often.

Many of the study's findings confirm previous research. As was found in this study, previous research has identified that attrition is higher among older teachers (Boyd et al., 2009). Inconsistent findings have been noted for gender (Borman & Dowling, 2008) and this study found that women have higher attrition rates. Confirmed in this study, smaller schools have been associated with higher levels of attrition (Ingersoll, 2001; Kelly, 2004). The speculation has been that larger schools allow for greater collegial connections which small schools do not offer due to the reduced number of teachers.

Some of the study's findings are inconsistent with previous research. Less experienced teachers have been found to have higher turnover rates (Ingersoll, 2001; Leukens, 2004) whereas the current study found that more years of teaching experience was associated with increased attrition, specifically for leavers. Additionally, Ingersoll (2001) cited teacher attrition as being higher in schools with low salaries while the

current study found that higher salary was a predictor of leavers. The predictive power of teachers' experience and salary may be explained by leavers reporting retirement as the primary factor in leaving the profession. Teachers at the retirement age would have worked longer, thereby having more years of experience and earning higher salaries.

Adding to the mixed findings about urban schools (Allensworth, Ponisciak, & Mazzeo, 2009; Guarino, Santibanez, & Daley, 2006; Smith & Smith, 2006), this study found no association between urbanicity and attrition rates. This national sample may suggest attrition in largely urban schools should not be of special concern. Previous research has shown that attrition may be more related to poverty (Borman & Dowling, 2008). Different findings come to light when analyzing "leavers" and "movers" separately. Teachers tended to move from schools with a higher percentage of racial/ethnic minority students and higher percentage of students enrolled in free and reduced price lunch. These links were not found for leavers. In combination with previous research, these findings suggest that predictors of attrition continue to vary across studies.

Correlates of Student Threats and Assaults

The present study examined the association between teacher-reported student threats/assaults and individual teacher and school-level characteristics. No statistically significant association was found for any of the correlated individual-level factors (e.g., gender, age, and ethnicity) whereas all school-level factors were found to be significant. Schools with a larger percentage of racial/ethnic minority students and students enrolled in free and reduced price lunch, smaller student enrollment size, and more urban schools were associated with more experiences of student threats and assaults.

These findings raise questions about why school sociodemographic characteristics are correlates of threat/assaults. One possible explanation relates to how schools with more “at-risk” students tend to employ teachers who enter the profession with less preparation (Crosby, 1999). It is possible that these teachers lack skills in relationship building and classroom management. Teachers who have stronger relationships with their students tend to earn respect from their students and engage them in academics (Astor, Meyer, & Behre, 1999; Gregory & Ripski, 2009).

Another possible explanation of the link between sociodemographic risk and threat/assault is that students in higher poverty schools are more exposed to violence and may transfer that behavior into school. Community violence exposure increases aggressive cognitions and aggressive behavior during first through sixth grade (Guerra, Huesmann, & Spindler, 2003). Furthermore, students who witnessed more violence also showed lower levels of academic achievement over time (Henrich et al., 2004). Teachers then experience more aggressive behavior in low achieving schools and increased pressure for their students to improve academic achievement due to state and federal standards (e.g., No Child Left Behind).

In addition, greater “social distance” may exist between the typically White, middle class, teachers and their students in diverse schools with higher sociodemographic risk. In these schools, teachers may be more afraid and less able to connect with students. Teachers working in urban schools have noted being fearful because of their belief that the violence in the community would occur in the school environment and thus, threaten their safety (Smith & Smith, 2006). The respondents in the Smith and Smith (2006) study voiced feeling distrustful of those in their school’s community, which

prevented them from developing relationships with students and parents. This distance between teachers and students also resulted in worse adaptive functioning for students as exposure to community violence increased (Ozer & Weinstein, 2004). Future teachers should receive training on developing teacher-student relationships, perhaps through culturally responsive teaching which reflects development of personal relationships with students, creation of caring communities, establishment of business-like learning environments, use of culturally and ethnically congruent communication processes, demonstrations of assertiveness, and utilization of clearly stated and enforced expectations (Brown, 2004). Teachers who utilize this approach rely on their strong relationships with students to build on trust rather than fear or punishment to maintain a positive and cooperative classroom environment.

Finally, preventative interventions may be more effective if they focus on the whole school rather than individual teacher characteristics. Currently, school level prevention efforts that directly address violence directed toward teachers do not exist (Espelage et al., 2013). School and community level prevention and intervention, specifically for teachers who experience student threats and assaults, warrants further investigation.

Limitations

The present study has several limitations that should be considered. This study was unable to consider the effects of “nesting” to a full extent due to the limited number of nested teachers. More nesting would help provide a more reliable measure of administrative support. Additionally, other sources that influence teacher attrition, such as behavior management and school climate, could not be accounted for due to the

limited questions asked in the SASS data. This study did not examine how factors, such as behavior management skills, may play a role in how teachers respond to experiences of student threats and assaults. Effective classroom management, including positive behavior support, has been found to reduce student discipline problems and prevent the development of conduct disorders (Luiselli, Putnam, Handler, & Feinberg, 2005; Webster-Stratton, Reid, & Stoolmiller, 2008). That said the impact of classroom behavior management skills has not been examined in relation to teachers' experiences of student threats and assaults. Furthermore, we do not know or have data on whether highly effective teachers are the ones moving due to student threats/assaults. It may be the case that less effective teachers are the targets and some principals may be pleased they decide to move. An area of future research would examine the teaching effectiveness of those who experience student aggression.

Future researchers would greatly extend the present study by exploring whether movers are more likely to become leavers or stayers later in their career. Assessing how these negative experiences with students affect teachers over time is important to examine. Relevant questions include, "Once a teacher moves, might he or she feel less connected to a new school and less stable in their profession?" "What role does this connection play in moderating the effects of student threats and assaults?"

The longitudinal nature of this study provided new information on teacher attrition. While this was a strength of the current study, the limitations of correlational design should be noted. The study cannot claim that school-level characteristics cause student threat and assaults as causal inference would require an experimental design.

Summary and Implications

The study findings contribute a new understanding regarding the impact of student threats and assaults. The experience of student threats and assaults tends to increase teacher attrition rates for movers who relocate from their current school for another. Given that teacher turnover harms student achievement, understanding factors that decrease turnover could point toward strategies that ultimately help students. Another important implication of the current study includes: Teachers leaving the profession may not be as concerning as those teachers who move to another school. This is especially important to consider in relation to high poverty schools. High risk students experience greater rates of teacher turnover and are potentially those most impacted by movers. Thus, teacher turnover is an issue of educational equity. The findings also suggest teacher safety is paramount. Teachers need to experience the workplace in a safe and welcoming manner while also retaining high quality teachers in low income schools. As such, both the welfare of the students and of the teachers needs to be considered together.

Administrators should consider how to prevent the experience of student threats and assaults perhaps by addressing school climate. What can administrators do to help restore relationships after teachers experience student threats and assaults? Future research should consider mechanisms of administrative support to understand how support from administration reduces attrition as well as to identify potential protective factors in moderating the effects of student threats and assaults. Additionally, creating a positive climate in the classroom may help restore student-teacher relationships.

Administrators may also want to consider ways to respond to teacher reports of student threats and assaults to reinstate a sense of belonging and safety. De-briefing and meeting with the school psychologist or other mental health workers in the school may provide teachers with additional supports thereby allowing teachers an opportunity to process the negative interaction. Additionally, the School Crisis Team could work with the administration to create mandated policies for both teachers and students who are victims of serious infractions in the school setting. These policies would provide specific ways to respond to student threats/assaults with the goal to reduce the likelihood teachers would move to another school.

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Appendix A

Administrative Support Scales

To what extent do you agree or disagree with each of the following statements?

Strongly Agree = 1, Agree = 2, Disagree = 3, Strongly Disagree = 4

1. The school's administration's behavior toward the staff is supportive and encouraging.
2. My principal enforces school rules for student conduct and backs me up when I need it.
3. The principal knows what kind of school he or she wants and has communicated it to the staff.
4. The teachers at this school like being here; I would describe us as a satisfied group.
5. I like the way things are run in this school.

Appendix B

Descriptive Teacher Attrition Outcomes

Indicate the level of importance each of the following played in your decision to leave the position of K-12 teacher.

Not at all important = 1, Slightly Important = 2, Somewhat Important = 3, Very Important = 4, Extremely Important = 5

1. Because I was dissatisfied with workplace conditions (e.g., facilities, classroom resources, school safety) at last year's school.
2. Because student discipline problems were an issue at last year's school.

Appendix C

Literature review on teacher attrition, victimization, and protective factors

Across the United States, teachers are exiting the profession at alarming rates. Twenty-five to 50% of beginning teachers leave the profession (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Kaiser & Cross, 2007). There are many influences that contribute to teacher attrition (e.g., individual and school characteristics) that continue to be closely examined in the literature. Additionally, teachers often cite student misbehavior as a reason for leaving. This section examines a handful of key aspects of teacher attrition, including student assaults on teachers. Understanding these key issues can assist with addressing and ameliorating the issues of teacher attrition.

Teacher Attrition

Almost 25% of teachers leave the profession within the first three years of teaching (Kaiser & Cross, 2007). Approximately 3.4 million teachers were employed in school during the 2007-2008 school year; by the following year 8% of those teachers had left the profession – approximately 270,000 exited the occupation (Keigher, 2010). Additional studies have found 40-50% of beginning instructors leave teaching (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Ingersoll & Smith, 2003). Comparatively, teacher attrition is disproportionately higher than other professions (Liu & Meyer, 2005). National data on rates of employee turnover reveals attrition rates in other professions has remained stable over a decade, averaging 11% per year while teaching has remained higher fluctuating from 14.5% in 1988-1989 to 17% in 2000-2001 (Ingersoll, 2002). High turnover in schools may create a “revolving door” where students receive inexperienced, less effective teachers. For instance, almost 44% of elementary teachers

in lower-performing schools in New York City left their initial school within the first two years of teaching (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009). Boyd and colleagues (2009) suggested that higher turnover leads to instability in schools which could lead to incoherent and ineffective instruction. In addition, the same authors found that schools with a higher population of non-white, low-performing, and low-income students experience higher turnover rates, and these students may be the most in need of a consistent school experience. Higher rates of turnover not only indicate underlying problems in how well a school functions but also disrupt the quality of school community and performance (Ingersoll, 2001).

Individual Characteristics

Most research has focused on the relationship between teacher attrition and teacher's individual characteristics or school characteristics. Studies have primarily examined what types of teachers have higher attrition rates and what types of schools experience higher teacher attrition rates. At the individual level, several characteristics have been identified. A teacher's age highly correlates with attrition rates. Age creates a U-shaped curve revealing that attrition is higher among younger and older teachers (Boyd, Grossman, Ing, Lankford, & Wyckoff, 2009; Guarino, Santibanez, & Daley, 2006; Ingersoll & Smith, 2003; Kukla-Acevedo, 2009). More specifically, higher attrition occurs in the younger and older ages compared to the 30 to 49 years old age group. Rates of attrition reach 20% per year for teachers over age 60, partially due to retirement age (Boe et al., 1997) and the odds of a young teacher departing the profession are 171% higher than a middle-aged teacher (Ingersoll, 2001).

Teaching experience tends to be correlated with age. Novice teachers (one to three years of experience) are approximately 1.5 times as likely to leave teaching and 2 times as likely to switch schools as are experienced teachers (over three years of experience; Kukla-Acevedo, 2009). More experienced teachers are less likely to turn over. For teachers who have four or more years of experience, 5.6% have been found to leave teaching while those teachers with less than four years of teaching, 9.2% exited the profession (Boe et al., 1997). Experience can be defined as the number of years teaching as well as qualification and teaching status. For example, teachers who are more fully certified in their primary teaching role are more likely to stay in teaching than those who are partially certified (Boe et al., 1997).

The subject and field of teaching are also associated with teacher attrition. Special education, mathematics, and science are typically examined when assessing rates of turnover; however, these results have been mixed. Studies have found that special education teachers are more likely to exit the profession (Ingersoll, 2001; Kelly, 2004). Math and science teachers have not been found to be associated with attrition (Ingersoll, 2001) while Kelly (2004) reported science teachers leave the profession at higher rates than other academic subjects, although the effect was not statistically significant.

Some studies have shown that men tend to stay in their profession longer than women (Ingersoll, 2001; Kelly, 2004; Kukla-Acevedo, 2009). Women have been found to leave teaching due to raising children. Those who have young children, added a dependent child or have a change in marital status leave the teaching profession at higher rates (Boe et al., 1997). However, some women tend to transfer to another school as

opposed to leave making the attrition rates of men and women teachers equivalent (Kukla-Acevedo, 2009).

Salary has also been associated with attrition rates. Teachers with low salaries tend to leave schools at a faster rate (Ingersoll, 2001; Kelly, 2004). Teachers have also cited an inadequate compensation as one reason for leaving the profession (Ingersoll & Smith, 2003). In fact, salary has been found to be the most reliable predictor of teacher attrition (Boe et al., 1997).

At the school level, several characteristics are associated with teacher attrition. Smaller schools (e.g., smaller enrollment size) have higher levels of attrition (Boe et al., 1997; Ingersoll, 2001; Kelly, 2004). An enrollment difference of 100 students is associated with a 4% difference in the odds of a teacher leaving (Ingersoll, 2001). Scholars speculated that larger schools allow for greater connections to be made to others in the profession (Ingersoll, 2001).

Conflicting information has been found regarding urban schools. Some studies have found no association between teacher turnover and community type (i.e., rural, suburban or urban) or only slightly higher rates of turnover (Boe et al., 1997; Ingersoll, 2001). Teachers in rural schools have been found to have higher attrition rates (Ingersoll, 2001); however, little difference has been found between suburban and urban schools (Ingersoll, 2001; Kelly, 2004). Due to this conflicting information, turnover rates are thought to be more associated with poverty than community type. Ingersoll (2001) notes that high poverty (i.e., poverty enrollment of 50% or more) public schools have higher turnover rates than public schools with poverty enrollment below 15%. Noteworthy,

however, is that one study showed poverty concentration had no statistically significant association with attrition (Kelly, 2004).

Proportion of minority students in schools has also revealed mixed results. Boyd, Grossman, Ing, Lankford, & Wyckoff (2009) found that teachers are more likely to leave when the school in which they work has higher proportions of Black and Hispanic students. However, other studies have found no association between minority enrollment and teachers exiting the profession (Boe et al., 1997). Kelly (2004) found that schools with a higher minority enrollment size had lower levels of attrition compared to predominately White schools.

Previous attempts to combat attrition have focused on individual-level characteristics. Boe et al. (1997) recommends hiring experienced teachers, between the ages of 35 to 55 who have dependent children over the age of 5 and to place these teachers in full-time positions for which they have full certification and pay them a higher salary. Other attempts have focused on recruitment initiatives such as “troops-to-teachers” which focuses on getting mid-career professionals who change careers and “Teach for America” (Ingersoll, 2001). Financial incentives, including signing bonuses, student loan forgiveness, housing assistance, and tuition reimbursement have also been used to reduce teacher attrition (Kopp, 1992; Hirsch, Koppich, & Knapp, 2001). Monetary incentives have been less effective in keeping teachers (Futernick, 2007). High-stakes accountability has also been created; however, this has been found to negatively influence teachers by increasing time on test preparation and intensifying the pressure for higher test scores (Banicky & Noble, 2001).

Organizational Characteristics

Organizational characteristics and workplace conditions have also been examined as influences in teacher attrition rates. Job dissatisfaction with teaching has been reported as a reason for exiting the profession. Dissatisfaction is often due to lack of support from school administration, student discipline problems, and lack of student motivation. Ingersoll (2001) found that 42% of all teachers who left the profession reported job dissatisfaction as a reason. Schools that provide more administrative support to teachers have lower turnover rates – with more support from the administration resulting in a 23% difference in the odds of a teacher leaving (Ingersoll, 2001).

Student discipline problems are also frequently cited as a reason for teachers leaving the profession. Schools with lower levels of student discipline problems tend to have lower turnover rates (Ingersoll, 2001). Specifically, one study showed that schools with lower reported student problems had a 47% difference in the odds of a teacher leaving (Ingersoll, 2001). Studies are beginning to reveal that poor workplace conditions influence which teachers choose to remain in the profession (Johnson, Berg, & Donaldson, 2005). Poor workplace conditions are characterized by student discipline problems, lack of support from school administration, and poor student motivation (Ingersoll & Smith, 2003). Taken together, previous research on teacher attrition reveals that workplace conditions are predictive of teacher attrition; however, it remains unknown how attrition rates are impacted by teachers who experience verbal and physical student violence.

Teacher Safety

Teacher working conditions includes whether school staff experience safety in the schools. Student misbehavior typically interferes with the effectiveness of the teacher, disrupts the learning environment, and violates school rules. Low-level misbehavior interferes with classroom functioning, yet teachers can experience much more serious rule-violating behavior from their students. Specifically, they can be the victim of verbal or physical assault. One-third of school social workers report fearing for their safety about once a month (Astor, Behre, Wallace, & Fravil, 1998). Overall, 35% of those respondents who reported being fearful indicated they had been physically assaulted or threatened by students within a one year period. Teachers report teaching difficulties associated with violence in their schools – conflict in the classroom results in a lack of motivation to perform daily work among the teaching staff (Alonzo, Lopez-Castedo, & Juste, 2009).

An estimated 2.0 million crimes occurred in schools during the 2007-2008 school year (Snyder & Dillow, 2010). This equates to 43 crimes per 1,000 public school students. Additionally, 62% of schools reported a crime which occurred at school to the police, or about 15 crimes per 1,000 public students. The U.S. Indicators of School Crime and Safety (NCES, 2010) further indicated that between 1999-2000 and 2007-2009, increases occurred in the percentage of public schools reporting the following measures: controlled access to the building during school hours (75-90%); controlled access to school grounds during school hours (34-43%); students required to wear badges or picture IDs (4-8%); faculty required to wear badges or picture IDs (25-58%); use of one or more security cameras to monitor the school (19-55%); telephones in most

classrooms (45-72%); and requiring students to wear uniforms (12-18%). Schools perceived increases in violence and have increased their safety measures in an effort to protect students and staff. While increased safety measures may not be a direct result of violence in the school, it reveals the increased concern of schools.

The Indicators of School Crime and Safety: 2010 also reported data on teacher victimization. During the 2007-2008 school year, 10% of teachers working in city schools were threatened with injury and 6% of teachers working in suburban or rural schools were threatened with injury. The number of teachers who were physically attacked is lower. Small differences were noted between city (5%), suburban (4%), and rural (3%) schools. Additionally, teachers working in elementary schools indicated receiving higher rates of physical attack. Six percent of teachers working in elementary schools were physically attacked in 2007-2008 compared to 2% of teachers in secondary schools. Additional results of this report indicated that 11% of teachers reported being the target of student disrespect on a daily or weekly basis. Furthermore, 34% of teachers reported that student misbehavior in their classrooms interfered with their teaching. Taken as a whole, the report suggests many teachers are experiencing violence and aggression in their classrooms, ranging from disrespect to physical violence.

Gottfredson and Gottfredson (1985) were among the first to examine victimization in the schools and to specifically examine predictors of teacher victimization, including sense of community of the school and the demographics of the students in the school. Their findings suggested that poverty and crime in the community, along with race and socioeconomic status, urbanicity, and the size of school enrollment were related to teacher victimization. Other factors related to teacher

victimization included teachers with large number of students, low levels of cooperation between teachers and administrators, and teachers with punitive attitudes. In addition, teacher victimization is higher in schools with students who do not see rules as being fair and students who do not seem to believe in the rules and norms of the school. Schools that experience less victimization are characterized by fair and consistent rules and consequences, clear expectations for behavior, and positive rewards for rule-following behavior.

Additional studies have reported on rates of teacher victimization. Gottfredson et al. (2000) examined data from the 1997-1998 school year. Teacher reports in secondary schools indicated that 42% had received obscene remarks and gestures from a student, 28% had damage to personal property (<\$10), 24% had property stolen (<\$10), 21% were threatened by a student, 14% had damage to personal property (>\$10), 3% were physically attacked, and less than 1% were physically attacked and had to see a doctor as a result of the attack or had a weapon pulled on them. Results of this study found that teacher victimization was higher in middle schools than high schools for obscene remarks and gestures, minor property damage, minor theft, threats, minor physical attacks, and physical attacks which required a physician. Greater victimization was reported in urban schools for serious attack, minor theft, major theft, minor property damage, and threats and obscene remarks. Furthermore, 20% of secondary school teachers, and 31% of urban middle school teachers reported being verbally threatened by a student. In addition, in the Gottfredson et al. (2000) study, 28% of students reported seeing a teacher being threatened by a student and 12% saw a teacher being hit or attacked by a student. Students who identified themselves as Black reported seeing a teacher threatened by a

student more than students who identified as White – 40% to 27% respectively. Fewer students identified as Asian or Pacific Islander reported these events – 18%.

In Virginia, faculty safety was examined to determine teachers' experience of victimization (Gregory, Cornell, & Fan, 2012). In the statewide study of over 90% of the public high schools, almost 20% of teachers reported being verbally threatened by a student and 43.2% reported receiving obscene remarks or gestures from a student. Overall, four out of five teachers reported being spoken to in a rude or disrespectful manner by a student. Similarly, a recent report of crime and disorder in Chicago revealed that nearly half of all teachers in grades K-8 reported significant problems related to disrespect of teachers (Steinberg et al., 2011). Over 60% of high school teachers reported problems with student disrespect of teachers and more than 25% reported student threats of violence toward teachers in their school.

Teacher victimization related to schools in impoverished communities has revealed mixed results. Some studies have found that the measure of poverty in a school predicts teacher victimization (Gottfredson et al., 2005; Payne, Gottfredson, & Gottfredson, 2003; Steinberg et al., 2011) while Gregory, Cornell, and Fan (2012) found no association between poverty level, as measured through free and reduced lunch, and teacher victimization. Concentrated poverty and residential crowding are more highly related to teacher victimization than to student victimization or other forms of student delinquency (Payne, Gottfredson, & Gottfredson, 2003). A handful of studies have all found that schools with higher percentages of African-American students are associated with higher teacher-reported victimization (Gottfredson et al., 2005; Gregory, Cornell, & Fan, 2012; Payne, Gottfredson, & Gottfredson, 2003; Steinberg et al., 2011). School

enrollment size has also produced mixed results with some studies finding an association with teacher victimization (Gregory, Cornell, & Fan, 2012) and others finding no association (Payne, Gottfredson, & Gottfredson, 2003; Steinberg et al., 2011). Higher levels of victimization, among students and teachers, are reported in schools with more male students (Gottfredson et al., 2005). Male teachers are also more likely to be the victims of violence than females (Pietrzak, Petersen, & Speaker, 1998).

One study showed urbanicity is not related to teacher victimization (Payne, Gottfredson, & Gottfredson, 2003). Safety varies considerably among schools in Chicago indicating that factors other than urbanicity are associated with teacher victimization (Steinberg et al., 2011). Gottfredson and colleagues (2005) suggest a possible reason for the finding that urbanicity is not related to teacher victimization. They propose that either teacher victimization is becoming less common in urban areas and is showing up in other communities or teachers in non-urban areas are becoming more likely to recognize and report victimization.

Teacher victimization has also been examined in relation to school climate and school disorder. Communally organized schools are found to have more positive student attitudes, better teacher morale, and less student problem behavior (Payne, Gottfredson, & Gottfredson, 2003). Communally organized schools are indicated by supportive relationships among teachers, administrators, and students who all have a common set of goals and norms, as well as a sense of collaboration and involvement. Schools with less communal organization and higher levels of school disorder are found to be more highly related to teacher victimization (Payne, Gottfredson, & Gottfredson, 2003; Wilcox et al., 2006).

School climate has also been analyzed as a predictor of teacher victimization. School climate has examined perceived fairness and clarity of rules in the school as well as other positive psychosocial factors within the school setting. The psychosocial climate of the school predicts teacher-reported victimization (Gottfredson et al., 2005). The safety of the school is characterized by student and teacher perceptions of safety and the relationship between students and teachers. Schools in which students and teachers report having a generally safe climate, include one in which teachers report few problems with crime and violence and students say their peers get along well with each other and care about each other (Steinberg et al., 2011). In an unsafe school, teachers report problems including robbery, gang activity, and fights – three-quarters of teachers within an unsafe school report that students threaten them with violence (Steinberg et al., 2011). When teachers perceive greater support and structure in the school they report lower levels of victimization (Gregory, Cornell, & Fan, 2012). The perception of a school as being safer is related to people working together and building trust and collaborative relationships (Steinberg et al., 2011). These results show that the relationship between students, teachers, and administration impacts teacher victimization.

Current recommendations on combating teacher victimization focus on improving school climate and teacher-student relationships. Espelage and colleagues (2013) suggest teachers maintain appropriate boundaries with students and appropriate safety in public spaces. They offer specific suggestions that teacher training programs should help make engaging classroom environments and responsive classrooms. Additional recommendations include effective classroom management skills and nurturing positive relationships.

Teachers are experiencing violence in the schools and classrooms, and some studies have examined how teacher victimization impacts the teacher. Teacher victimization increases stress and fear among teachers (Dworkin, Haney, & Telschow, 1988). Williams, Winfree, and Clinton (1988) analyzed data from teachers in Texas from 1985. They found that females reported higher levels of fear related to victimization. On the other hand, females reported lower levels of victimization as compared to males. Older individuals were also more likely to report greater levels of fear related to victimization. Being a victim significantly predicted the level of fear the teacher reported. Teachers also perceive safety differently according to location in the school. Teachers generally rate classrooms as safe yet they see the locker room, gym and restrooms as less safe (Gottfredson et al., 2000). Perception of safety also differs according to school level. In a study by Steinberg et al. (2011), at the elementary school level 49% of teachers are at least a little concerned about violent threats to teachers and 65% at the high school level. Only 13% of teachers in elementary schools are not concerned about disrespect of teachers and 5% of teachers in high school.

Student violence directed at teachers also results in lower job satisfaction, increased emotional exhaustion (Skaalvik & Skaalvik, 2011), and greater stress (Dworkin, Haney, & Telschow, 1988). Being the victim of extreme acts of violence can result in somatic complaints (e.g., dizziness) and can result in symptoms related to Post-Traumatic Stress Disorder (Daniels, Bradley, & Hays, 2007). As noted previously, teacher stress is predictive of attrition; however, the link between teacher victimization and attrition has been underexamined. Two studies are the exception.

Zeira, Astor, and Benbenishty (2004) studied school violence in Israel by examining the perceptions of homeroom teachers on violence in their schools. Their sample included 1,521 teachers from 232 schools. The authors were interested in understanding the differences between teachers' views on violence according to the type of school in which the teachers worked: Jewish secular, Jewish religious, and Arab. Comparable to other studies, the authors found that verbal threats were the most frequent (17%), then threatening to hurt a teacher (5.9%), and then destruction of a teacher's personal belongings (3.6%). The authors found that 74.8% of teachers reported they do not worry about their personal safety. The authors also asked teachers if they thought about leaving the profession because of school violence. Eighty-five percent of teachers reported they never thought of exiting teaching, 12.4% rarely (once a year or less), and 2.7% frequently thought about it. While the majority of teachers reported not considering leaving teaching, when the teachers were examined by school level, 18.7% of high school teachers, 14.9% of junior high school teachers, and 13.1% of primary school teachers had thought about leaving the profession. This study provides preliminary evidence that violence against teachers impacts teacher *thoughts* about the profession. Additionally, the authors noted that teacher victimization in Israel is about half that of the United States.

Galand, Lecocq, and Philippot (2007) examined the effects of student violence on teacher's professional disengagement. Studying a sample of 24 schools and 40 teachers in Belgium the authors examined the relationship between perceived school support, exposure to school violence, subjective well-being, and professional disengagement among teachers, as well as the buffering effect of school support between school violence

and well-being. The study specifically measured teacher reports of student misbehavior (e.g., drinking or eating during lessons, arriving without school equipment, refusing to take off cap, etc.), verbal victimization (i.e., rumors, racist insults, sexist insults, and verbal intimidation) and perceived violence in the school to determine how often insults, vandalism, threats with objects or weapons, theft, sexual aggression, fights, and use of drug or of alcohol occur in school. The teachers also rated their perception of leadership in their school and relationships with colleagues as well as measures of depression, anxiety, and somatization. Professional disengagement was measured by teachers rating if they planned to leave teaching, if they would leave if they had another job offer, or if they would like to have another occupation.

The results of the Galand, Lecocq, and Philippot (2007) study revealed that teachers who reported having more social support from colleagues and staff were less likely to report feeling disengaged from teaching. Results also revealed that student misbehavior, perceived violence, verbal victimization, somatization, depression, and anxiety were associated with higher levels of disengagement. This study suggests that the negative emotional impact of school violence could contribute to teachers' intention to leave the profession, and that building a positive school social climate and school support may provide a way to prevent teachers from leaving. Taken together, these two studies reveal that teachers are negatively impacted by the violence they experience and that administrative support may buffer these negative effects; however, the authors studied teachers' *beliefs* and *intent* to stay in teaching rather than examining behavior. Studies are needed that examine the impact of verbal and physical aggression directed at

teachers associated with actual teacher attrition data thereby providing a link between teacher victimization and teacher behavior (i.e., staying or leaving the profession).

Administrative Support

Teacher attrition is associated with a number of risk factors; therefore, it is important to identify protective factors to reduce these negative outcomes. Rutter's (1985) definition of protective factors emphasizes their role in influencing, modifying, ameliorating, or changing a response to a risk in the environment that predisposes a person to negative outcomes. Additional definitions have characterized protective factors as those which help a person to cope with incredible challenges and promote positive outcomes, while reducing the likelihood of negative consequences (Fergus & Zimmerman, 2005; Spencer et al., 2006). Using these definitions, a protective factor would provide a support mechanism for teachers which would reduce their potential to leave the profession due to victimization.

Research on stress and coping provides a theoretical framework for identifying protective factors. Lazarus (1993) describes the stress process as involving four concepts. The first is the causal external or internal stressor which is followed by the second step, the evaluation (either psychologically or physiologically) which identifies the stressor as threatening. The third step is the coping process used by the mind or body to deal with the stressful demands and, finally, the stress reaction which is a complex pattern of effects on the mind and body. Lazarus also distinguished three different types of stress – harm, threat, and challenge. Harm refers to psychological damage that has already been done. Threat is the anticipation of harm that has not taken place yet; an

unpleasant state of mind that may impair functioning. Challenge is the result of difficult demands that an individual feels confident to overcome by using coping resources.

Coping is described by Lazarus (1993) as altering circumstances, or how they are interpreted, to make them appear more favorable. Coping reduces stress reactions through problem-focused coping or emotion-focused coping. Problem-focused coping refers to coping actions that alter a person's relationship with the environment and results in a reduction of psychological stress. Emotion-focused coping alters the way one attends to or interprets what is happening. This involves reappraisal of a threat into nonthreatening terms which eliminates the cognitive basis of the initial stress reaction. Overall, coping shapes emotion along with psychological stress, by influencing the relationship between the person and environment as well as how it is appraised.

People have a variety of coping behaviors from which to choose when confronted with a stressor (Fleming, Baum, & Singer, 1984) and social support can reduce the impact of stressors (Cohen & Wills, 1985). With teachers, lower social support correlates with higher burnout (Pierce & Malloy, 1996). Coworker support has been found to buffer the impact of teacher stress on burnout (Greenglass, Burke, & Konarski, 1997). Griffith, Steptoe, and Cropley (1999) found that seeking social support moderates the impact of teacher stress on well-being.

Administrative support is "the school's effectiveness in assisting teachers with issues such as student discipline, instructional methods, curriculum, and adjusting the school environment" (Borman & Dowling, 2008, p. 380). Literature has shown that a lack of administrative support is a reason cited for teacher attrition. Boyd, Grossman, Ing, Lankford, and Wyckoff (2009) examined working conditions associated with schools

with higher turnover rates in New York City public schools. Teachers were asked to identify what aspect of their job most influenced their decision to leave or consider leaving the profession and over 40% identified dissatisfaction with the administration as the most important factor. One standard deviation increase in a teacher's positive perception of school administration resulted in a 28% decrease of the teacher's likelihood to leave the profession. Teacher attrition is higher in schools with poor support from school administration and limited input into decision-making – the odds of a teacher leaving decreased by 23% due to an increase in administrative support (Ingersoll, 2001). Additional studies have found lack of administrative support to be a significant predictor of a teachers' decision to leave teaching (Ingersoll & Smith, 2003; Liu & Meyer, 2005; Luekens, Lyter, Fox, & Chandler, 2004; Weiss, 1999). More recent studies have examined if increased administrative support results in decreased teacher attrition. Kukla-Acevedo (2009) found that support from the principal (e.g., communicating expectations and maintaining order in the school) protected against teacher turnover. Teachers' perceptions of school leadership are predictive of teachers' intentions to stay in the school (Ladd, 2009).

Tickle, Chang, and Kim (2011) used Schools and Staffing Survey data from 2003-2004 to examine the effects of administrative support on teacher attrition. The authors defined administrative support as: the principal lets staff members know what is expected of them, the school administration's behavior toward the staff is supportive and encouraging, the principal enforces school rules for student conduct and backs up the teacher when he/she needs it, the principal knows what kind of school he/she wants and has communicated it to the staff, and staff members are recognized for a job well done.

The results indicated that administrative support was a significant predictor of teachers' job satisfaction and intent to stay in teaching.

Positive relationships among teachers and administration also impact school environments. High-quality relationships among students, teachers, and parents results in safer schools even if these schools serve the least advantaged students (Steinberg et al., 2011). School-based relationships have been identified as crucial in creating safe school environments – the most disadvantaged schools with the highest-quality relationships have school climates which are at least as safe as more advantaged schools with weaker school-based relationships (Steinberg et al., 2011). Steinberg et al. (2011) found that the gap in safety in schools of advantage (e.g., poverty, crime, achievement) is overcome by the quality of school-based relationships. The quality and form of school leadership was also identified as a factor in the perception of school crime and disorder. The quality of relationships at work with colleagues affects teachers' perception of safety in their school.

Two studies have examined the role of school leadership on the effects of student violence. Galand, Lecocq, and Philippot (2007), described previously, suggest building a positive school social climate as a way to prevent teachers from leaving. Skaalvik and Skaalvik (2011) also examined the role of student violence and the mediating impact of administrative support. They studied Norwegian public schools to examine teachers' feeling of belongingness in school, in particular as it related to support from their supervisors. The researchers were interested in discovering if emotional exhaustion mediates work-related stress (e.g., discipline problems with students, time pressure) and job satisfaction and motivation to leave teaching. The authors found that discipline

problems significantly predicted emotional exhaustion. In addition, teachers with lower job satisfaction and less feelings of belongingness had an increased motivation to leave teaching. Their results reveal that supervisory support is predictive of belongingness. The authors suggest that a protective barrier against emotional exhaustion is a sense of belongingness. They speculate that school administration should pay more attention to teachers' feeling of belongingness as well as their emotional exhaustion and job satisfaction. This study highlights the role school administration and supervisors can play in mediating the effects of teacher victimization.

In sum, protective factors remain an important buffer to combat negative outcomes of teacher victimization. Administrative support may be one of many protective factors for teachers who experience violence in schools. Identifying whether protective factors reduce the likelihood of teachers who experience victimization from leaving the profession has implications for reducing the national rates of teacher attrition.

Summary

Teacher attrition in America remains an important issue considering the current high rates. Teachers' intention to leave the profession is associated with student discipline problems. Less understood is whether more severe forms of student discipline problems, such as verbal and physical assault are associated with teachers leaving the profession. Teacher victimization is linked to negative emotional and psychological consequences. Protective factors within the individual teacher and within the teacher's environment play an important role to shield teachers from negative outcomes associated with teacher victimization. More and more research has begun focusing on the effect of victimization on teachers. Understanding the relationship between teacher attrition and

rates of teacher victimization is important, considering the rates in which teachers experience violence in the schools. Furthermore, it is necessary to identify if administrative support is a protective factor which buffers against the negative outcomes resulting from teacher victimization.