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School Safety: Students and Weapon Carrying Behavior

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COLLEGE OF EDUCATION

This is to certify that the doctoral study by

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Abstract

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Ed. S., Freed-Hardeman University, 2006

MA, Alcorn State University, 1999

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Research shows that risk factors may be useful clues for predicting students' potential for engaging in weapon-carrying behavior. Law makers on every level—federal, state, and local—deem the presence of weapons on school grounds to be a serious problem and a violation of school policy. A large, urban school system has put forth sustained and costly efforts to prevent students from carrying weapons to school; yet students continue to carry weapons to school in this district. The purpose of this study was to use archival data collected as part of the school system's everyday practice to identify risk factors for students carrying weapons to school. Bandura's social learning theory guided this quantitative ex-post facto study. Six risk factors related to students' weapon-carrying behavior were examined: gender, prior fights, suspensions, race, academic achievement, and time of school day/year. Risk factors were compared for identified weapon carriers (n = 605) and non-weapon carriers (n = 605) using chi-square tests and a logistic regression analysis. Results showed that gender, prior fights, suspensions, and race were significant risk factors for weapon carrying. Students in this district who received 5-14 suspensions had a 1 in 4 chance of being a weapon carrier. Males as well as Black students and White students were 3 times more likely to carry a weapon to school. A pattern of fighting also correlated with an increased incidence of carrying a weapon to school. These data may help this school district and other school districts like it to provide better prevention strategies and enhance policy decisions by identifying students who are at high risk of carrying a weapon on school grounds.

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Section 1: The Problem

Introduction

School and student safety are essential to learning. Students should not have to worry about their safety while attending school. School systems around the country have put forth sustained efforts to stop weapons from entering the schools and yet students continue to carry weapons to school (Fritz & Radka, 2010). Too many times, violence in the community has found its way into the school and some students may carry weapons to protect themselves (Lunenberg, 2010). This problem affects the entire country and all schools at every level (Brown, Osterman, & Barnes, 2009; Fritz & Radka, 2010; Yun & Hwang, 2011). Stakeholders of schools today know that after tragic events, such as Columbine, Colorado and more recently Newtown, Connecticut, school violence carried out with weapons can happen at anytime and anywhere.

It has been hypothesized that based on individual characteristics or *risk factors*, students who carry weapons to school could be identified easily when compared to those who do not carry weapons to school (Finkenbine & Dwyer, 2006; Vaughn, Perron, Abdon, Olate, Groom, & Wu, 2012; Yun & Hwang, 2011). Most of the data collected on youth carrying weapons to school have come from self-report surveys where students share information about themselves and carrying a weapon to school (Finkenbine & Dwyer, 2006). The problem with this kind of data is that students could fabricate answers so they are not identified as weapon carriers. This study, unlike previous studies, used data that was collected by schools as part of the normal operations to identify risk factors for weapon carriers.

According to Yun and Hwang (2011) a nationally representative sample of youth ranging from 9th to 12th grade were surveyed and 8% of those youth reported that they were injured or threatened by a student with a weapon on school grounds. Six percent reported themselves as a weapon carrier on school grounds. In the California Healthy Kids Survey (2011) 5% of secondary school students reported themselves as a firearm carrying student and 10% reported carrying a knife or some other lethal weapon as their weapon of choice. Three percent of fifth graders reported they had brought a weapon to school.

Likewise, one state department of education in the southern United States conducted a self-report survey of its public school students (Department of Education [D.O.E], 2014). According to the state-wide survey it was found that 23.2% of all students within the state agreed that students at their schools carry weapons. It was also found that 22.9% of all students surveyed within the state strongly agreed that students at their schools carry weapons to school. This information suggested that numerous weapons are being brought onto school grounds across this state and likely other similar settings.

Definition of the Problem

The issue of weapons on school grounds is a concern to educators, parents, and stakeholders (Finkenbine & Dwyer, 2006). The exact nature of this issue demands additional attention in order to find the most viable solutions. In this doctoral project study, the problem is that within a sizable urban school district in the southern part of the United States, over 100 weapons have been found in the schools within the past two

school years (2011-2013) despite putting measures in place to deter weapons from entering the schools. The weapons found on school grounds in this school district ranged from razors to hand guns.

In this local district, eight elementary students faced expulsions for handling a loaded handgun (Perrusquia, 2008). In a similar incident one student found with a gun was only six years old (Perrusquia, 2008). In another incident, at a local high school within the district, school officials reported a 19-year old man for possessing a shotgun on school grounds (Perrusquia, 2008). The same day at one of the district's alternative schools, two female students were charged with possessing a concealed knife (Perrusquia, 2008). In another incident, a female student possessing a concealed gun in her purse because she was threatened by enemies, accidentally shoots herself in the arm when the gun discharged in a crowded classroom (Perrusquia, 2008). A troubled-teen in one of the district's high schools was caught when he tried to buy a .25 caliber pistol from another student while at school (Perrusquia, 2008). At another high school, a gang fight started during which a student pulled out a gun and barely missed shooting a student (Perrusquia, 2008). An investigation done by the local newspaper found that there have been more than 160 gun crimes on campuses within this particular school district (Perrusquia, 2008).

The problem of weapons in school was not unique to this school district. Incidents of weapons found on school grounds are documented by the schools and reported to the state. In fact, the state department of education where this district is located reported weapons in schools is a state-wide issue (DOE, 2014). Frequencies for handgun and other

lethal weapon possessions as reported to the state department of education (DOE, 2014) are shown in Table 1 below.

Table 1
Frequencies of handgun possessions and other lethal weapons by school year

School Year	Handgun Possessions	Other Lethal Weapons
2009-2010	75	1160
2010-2011	36	1085
2011-2012	57	1151
2012-2013	66	1154

Likewise, other states reported similar problems with weapons in school as evidenced by the study conducted by Finkenbine and Dwyer (2006). For example, this self-report of students found 15% of 7th and 8th grade students admitting to carrying weapons to school in Illinois. In North Carolina, a middle school and an all male secondary school in Massachusetts reported a similar percentage of students admitting to carrying weapons onto school. Twenty-five percent of students from a southern California high school admitted to carrying a weapon into their school. Finkenbine and Dwyer (2006) reported in a Seattle study that 6% of male students admitted to carrying a weapon onto school grounds. Clearly, it has been established that weapons on school grounds affects schools everywhere—nationally, state-wide, and locally.

Therefore, it would be beneficial to conduct additional research into the exact nature of the problem at the local level. With more information about the problem, viable solutions may become more apparent. For example, at the present time, within this particular school district most of the deterrents for students carrying weapons to school are reactive or become active only after the student brings the weapon to school. Reactive approaches and physical deterrents, such as those used in this school district, have been successful in decreasing the number of weapons on school grounds; however the decrease is not enough to keep all students safe in this school district and prevent weapons from coming to school altogether (Schools Against Violence in Education [SAVE Act], 2007). Alternatively, by studying the risk factors that may lead to the weapon carrying behavior of students, the problem of weapons in school may be addressed more effectively and in a proactive manner. This is important because too many times it is clear that students are at-risk and yet they are not helped until only reactive measures can be taken. For example, students could be at-risk of becoming potential weapon carriers and under the current policy those students will not receive help until they are caught with the weapons on school grounds.

This study addressed a gap in practice. Risk factors are identified for weapon carrying behavior in this school district using data that the district has collected on an everyday basis as part of the normal school operations; it may be possible for steps to be taken to identify students at-risk for carrying weapons to school before the behavior is exhibited. The data identified students who are at-risk for weapon carrying behavior by correlating risk factors that are associated with weapon carrying behavior. The current

practice for addressing students that carry weapons in this district is to wait until the weapon is found in the possession of a student on campus and then get involved to try to deter the weapon carrying behavior in the future. The threat assessment team provides intervention and tries to identify determinants that lead the student to the weapon carrying behavior. This was the gap that needed to be addressed in an attempt to eradicate the weapon carrying behavior by identifying students whose behavior correlates with an associated risk factor which predicts a significant potential to carry a weapon to school (Shelby County Schools Student-Parent Handbook, 2014).

The existing data about risk factors for weapon carrying behavior rely mainly on extensive student self-report measures or other types of lengthy data collection techniques (Blumberg et al., 2009; Finkenbine & Dwyer, 2006; Horner et al., 2012; Nickerson et al., 2009; Peskin et al., 2009; Spano et al., 2012; Stayton et al., 2011; Thurnherr et al., 2009; Vaughn et al., 2012; Walsh et al., 2013; Yavuzer et al., 2009; Yun & Hwang, 2011). Student self-report measures can be highly unreliable and may fail to identify important risk factors. Further, school systems do not have the human, monetary, or time resources needed to collect these types of data. Therefore, in this study, the researcher used existing data collected as part of typical day-to day practices to identify risk factors that correlate with students carrying weapons on school property.

Rationale

Evidence of the Problem at the Local Level

This problem was selected because students are carrying weapons to school despite the extensive steps that have been taken to prevent weapons from coming onto

school grounds. Legislation on every level, from federal, to state, to local deem weapons on school grounds a serious problem and an extreme violation of school policy (SAVE, 2007). State and federal laws require that any student found in possession of a weapon be expelled from school (SAVE, 2007). Many factors contributed to students carrying weapons to school. These factors, also known as risk factors, are potential determinants or possible indicators of increased rates of a particular variable (Blumberg et al., 2009). This study looked at risk factors as a way to better understand the problem of weapons on school grounds that may lead to identifying better solutions for the future.

Evidence of the Problem from the Professional Literature

In this study, risk factors are operationally defined as the potential determinants of students bringing weapons to school. The most relevant risk factors, or potential determinants of students bringing weapons to school, can be demographic such as ethnicity of a minority class, over-age for grade, gender, and the single parent home (Blumberg et al., 2009; Finkenbine & Dwyer, 2006; Nickerson & Slater, 2009; Peskin et al., 2009; Stayton et al., 2011; Thurnherr et al., 2009; Vaughn et al., 2012; Stayton et al., 2011; Yavuzer et al., 2009). Some risk factors for students carrying weapons to school can be behavioral and/or social variables such as alcohol and drug use, gang involvement, bullying, and prior fights. (Blumberg et al., 2009; Finkenbine & Dwyer, 2006; Nickerson & Slater, 2009; Peskin et al., 2009; Stayton et al, 2011; Thurnherr et al., 2009; Vaughn et al., 2012; Yavuzer et al., 2009). These are some of the reasons why there is a need to identify and address the risk factors associated with this problem (Fritz & Radka, 2010).

The purpose of this study was to use existing, archival data collected as part of the school system's everyday practice *to identify risk factors* for students carrying weapons to school. This study was unique as prior studies *conducted surveys about students carrying weapons to school*. This study used data the district already has collected on a day-to-day basis as part of the school operations to identify students who are at-risk of weapon carrying behavior and did not have to take on the resource intensive issue of collecting data. The information learned from this study may help this school district and other similar school districts to develop proactive, prevention strategies by identifying students who are high risk of carrying a weapon on school grounds. The information learned could be used to inform policy decisions and create more effective intervention strategies.

Definitions

Risk factors: Risk factors are environmental and personal traits that may increase the possibility of weapon carrying behavior (Blumberg et al., 2009).

At-risk: At-risk refers to a student who faces a number of challenges that other students are not challenged by or subjected to (Moore, 2006).

Weapons: Weapons refer to objects used to defend oneself against attack or objects used to injure a person during a conflict (Thurnherr et al., 2009). Example: rifle, hand guns, knives, bats, razors, chains, brass knuckles, and any homemade weapon known as shanks.

Significance

A significant number of students start school with pre-determining risk factors that make the student at-risk for weapon carrying behavior. According to SAVE (2007) school districts are challenged by the weapon-carrying behavior of students in order to reduce the weapon-carrying behavior and assure the safety and security of students and school personnel. Students that exhibit certain risk factors should be considered at-risk for carrying a weapon to school by the school district. These students not only go unscreened, these students lack the services that are provided by the district on a daily basis within the school, which includes making referrals to outside agencies for additional help (Horner et al., 2012).

School policy makers should recognize the significance of identifying students who are at-risk for weapon-carrying behavior and how identification would benefit the student in the long-term with respect to social and academic achievement (Horner et al., 2012). The present study provides significant evidence that correlates risk factors with weapon-carrying behavior in this school district. With this information about risk factors, school policy makers may write into school policy based on a federal, state, and local government mandate to identify the risk factors for each child. The information can be used to help inform school policy decisions and it will help this school district and other school districts around the country like this one provide better prevention strategies by identifying students who are high risk of carrying a weapon on school grounds.

Research Questions

The purpose of this study was to evaluate the relationship between risk factors and students carrying weapons to school. The study aimed to demonstrate how identifying risk factors can lead to identifying potential weapon carriers on school grounds. This study investigated risk factors associated with students bringing weapons to school. A guiding question and targeted research questions are used to guide this study.

Research conducted prior to this study has focused primarily on the prevention of students bringing weapons to school by providing schools with armed officers, metal detectors, the ability of the school administration to conduct random search and seizures, walk-through metal detectors, hand held wands, and x-ray scanners. This school district adopted many of these recommended strategies as standard practice (Brown et al., 2009; Fritz & Radka, 2010; Yun & Hwang, 2011). Despite these sustained efforts students were still managing to get weapons into the school in this school district. The present study used an ex post facto research design to address this gap in practice by identifying risk factors linked with students bringing weapons to school. By using this research method, the researcher was able to use data that the district collects on a daily basis to identify risk factors associated with students carrying weapons on school grounds.

Guiding Research Question

1. Among students who have been caught with weapons at school in this urban school district, what risk factors for students carrying weapons to school can be identified?

Research Questions and Hypotheses

1. Is there a relationship between gender and weapons carried to school?

   $H1_0$: There is no significant difference between gender and weapons carried to school.

   $H1_A$: There is a significant difference between gender and weapons carried to school.

2. Is there a relationship between race and weapons carried to school?

   $H2_0$: There is no significant difference between race and weapons carried to school.

   $H2_A$: There is a significant difference between race and weapons carried to school.

3. Is there a relationship between suspensions and weapons carried to school?

   $H3_0$: There is no significant difference between suspensions and weapons carried to school.

   $H3_A$: There is a significant difference between suspensions and weapons carried to school.

4. Is there a relationship between prior fights and weapons carried to school?

   $H4_0$: There is no significant difference between fights and weapons carried to school.

   $H4_A$: There is a significant difference between fights and weapons carried to school.

5. Is there a relationship between student achievement and weapons carried to school?

   $H5_0$: There is no significant difference between student achievement and weapons carried to school.

   $H5_A$: There is a significant difference between student achievement and weapons carried to school.

6. Is there a relationship between time of school year and weapons carried to school?

   $H6_0$: There is no significant difference between time of school year/day and weapons carried to school.

   $H6_A$: There is a significant difference between time of school year/day and weapons carried to school.

7. Which of these above listed variables is most predictive of weapon carrying?

   $H7_0$: All of the above listed variables are equally significant in predicting weapon carrying behavior of students.

   $H7_A$: One of the above listed variables will be shown to be the most influential in the weapon carrying behavior of students.

Review of the Literature

The research presented in this literature review was located via the following databases, EBSCOhost, ERIC, and Education Research Complete. The government websites were utilized to gather information from various research studies from the National Center for Educational Statistics. The following keywords were used: weapons, guns, knives, at-risk, and risk factors. This research informs the reader of studies that have identified possible risk factors that contribute to students bringing weapons to school. The literature was acquired through reviewing scholarly writings. These documents were acquired by online journal and publisher, obtained directly from the library, and by downloading the articles from the Walden University Online Library.

Theoretical Framework

The theoretical framework used in this study was Albert Bandura's social learning theory (SLT, 1977). Bandura's theory provides empirical evidence to the learned aggressive behavior of adolescents. Bandura (1977) states that behavior is learned

through the processes of observational learning, coming from the environment in which one lives. Bandura believed that children watch the people around them acting in diverse ways and ultimately begins to model the behavior of the observed person. The individuals that the children observe are referred to as models such as family members, television characters, peers or peer groups, and teachers.

Bandura (1977) believed that through observation people learn. In his famous "Bobo doll" experiment he proved that children imitated and learned behaviors they have observed in others. The foundation of the SLT is that learning occurs within a social context. The theory takes into account how people learn from each other, as understood in observational learning. The social learning paradigm accounts for the diverse scope of risk factors related to aggression and weapon-carrying behavior of adolescents.

Using a perspective informed by Bandura's SLT, the impact of school violence on its victims may be substantial because students have to encounter those who may have victimized them in the past. This could potentially correlate with the victim learning or modeling the aggressive behavior and potentially carrying a weapon. Research has indicated that school shootings do not happen often; however many students will carry a knife or a gun which indicates that the potential for the use of a weapon has increased (Brown et al., 2009).

Risk Factors for Weapon-Carrying Behavior

An examination of peer reviewed articles has identified the risk factors that most frequently correlate with students carrying weapons to school. These risk factors will be discussed throughout this literature review. The demographic variables correlated with

students bringing weapons to school have been shown to be ethnicity of a minority class, over-age for grade placement, male gender, and the single parent home (Blumberg et al., 2009; Stayton et al., 2011; Thurnherr et al., 2009). The behavioral and social variables that positively correlate to students who bring weapons to school have been shown to be alcohol and drug use, gang involvement, bullying, sexual activity, and prior fights (Blumberg et al., 2009; Stayton et al., 2011; Thurnherr et al., 2009). The reasons students carry weapons to school as reported by students who have brought weapons to school have been categorized into fear, anger, and self defense (Finkenbine &Dwyer, 2006). Risk factors that were discussed in this study are race, age, gender, prior fights, student achievement, school suspensions, and time of the school year.

Risk factors are environmental and personal traits that may increase the possibility of weapon-carrying behavior. Risk factors for weapon-carrying adolescents include age, race, poor academic achievement, male gender, a history of delinquency, a history of substance abuse, witnessing violence, having been a victim of violence, unsafe environments, and having easy access to weapons (Blumberg et al., 2009; Stayton et al., 2011; Thurnherr et al., 2009). Walsh et al. (2013) argue that physical fighting is also a risk factor for weapon-carrying. There have been numerous studies that have identified various risk factors including substance abuse, not living with both parents and lack of social supports; however the most cited risk factor for weapon-carrying is male gender (Blumberg et al., 2009 Brown et al., 2009; Esselmont, 2014; Fritz & Radka, 2010; Horner et al., 2012; Marsh et al., 2009; Nickeson & Slater, 2009; Peskin et al., 2009;

Spano et al., 2012; Stayton et al., 2011; Thurnherr et al., 2009; Walsh et al., 2013; Vaughn et al., 2012; Yavuzer et al., 2009).

Gender

Regarding risk factors and weapons carried to school, it appears that male gender is a significant variable among students that carry weapons to school. Recent studies cite male gender as the most frequent significant risk factor for weapon carrying. Thus, a common risk factor for weapon-carrying by adolescents is being a male (Blumberg et al., 2009; Brown et al., 2009; Esselmont, 2014; Fritz & Radka, 2010; Horner et al., 2012; Marsh et al., 2009; Nickeson & Slater, 2009; Peskin et al., 2009; Spano et al., 2012; Stayton et al., 2011; Thurnherr et al., 2009; Vaughn et al., 2012; Walsh et al., 2013; Yavuzer et al., 2009). Female weapon carriers are usually the victims of violent attacks. Female weapon carriers are four times less likely to carry weapons on school grounds than males. Female weapon carriers usually carry weapons such as knives and pepper spray (Blumberg et al., 2009; Brown et al., 2009; Esselmont, 2014; Fritz & Radka, 2010; Horner et al., 2012; Marsh et al., 2009; Nickeson & Slater, 2009; Peskin et al., 2009; Spano et al., 2012; Stayton et al., 2011; Thurnherr et al., 2009; Vaughn et al., 2012; Walsh et al., 2013; Yavuzer et al., 2009).

Physical Fighting

Another risk factor for weapon-carrying is physical fighting or having been victimized. Walsh et al. (2013) maintain that a lack of conflict resolution skills and youth gun carrying has changed the dynamics of an ordinary fight, usually resulting in weapon related injuries. Esselmont (2014) suggested that a possible correlation between violence

and bullying victimization is retaliation and the chances of bringing a weapon is settled by perceptions of school safety. Spano, Pridemore, and Bolland (2011) found that youth who are commonly exposed to violence are key determinants for gun carrying. Many studies have reported an association between fighting and weapon-carrying (Brown et al., 2009; Horner et al., 2012; Marsh et al., 2009; Nickerson & Slater., 2009; Peskin et al., 2009; Stayton et al., 2011; Thurnher et al., 2009; Vaughn et al., 2012; Yavuzer et al., 2009; Yun & Hwang, 2011). Thus, it appears that prior fights and other forms of victimization can expedite the chances of weapon-carrying by adolescents.

Race

Moving on with an examination of risk factors for weapon-carrying, race has been categorized as a risk factor (Blumberg et al., 2009; Brown et al., 2009; Esselmont, 2014; Fritz & Radka, 2010; Horner et al., 2012; Marsh et al., 2009; Nickeson & Slater, 2009; Peskin et al., 2009; Stayton et al., 2011; Spano et al., 2012; Thurnherr et al., 2009; Vaughn et al., 2012; Walsh et al., 2013; Yavuzer et al., 2009). Specifically, African American youth living in high poverty areas are faced with increasing numbers of injury and death resulting from opposing adolescent gun carriers (Spano et al., 2011). According to Blumberg et al. (2009) there is a higher prevalence for weapon-carrying among Black and Latino females than there is for White females and a higher prevalence for Latino males to carry weapons than white males or black males. Vaughn et al. (2012) found that Latinos and African Americans are more likely to carry a weapon than Whites. Stayton et al. (2011) found that without victimization Blacks and Latinos were more

likely to carry weapons than Whites. Race and ethnicity was not a significant risk factor for weapon-carrying among other ethnic minorities (Peskin et al., 2009).

Age

Some researchers have linked age to weapon-carrying and list it as a risk factor. Adolescent gun carriers are usually 15 to 17 years of age and usually in the 9th or 10th grade (Peskin, 2009; Stayton et al., 2011). Yun and Hwang (2011) and Marsh and Evans (2007) found age and weapon-carrying to have a curvilinear relationship which says that as age increases weapon-carrying increases up to age 16 and then as age increases weapon carrying decreases. Thus, it appears that age is significant in weapon-carrying youth until later adolescence.

Student Achievement

Other researchers have associated poor academic achievement with weapon-carrying. Involvement in school related activities and high academic achievement and were found to be significant protective factors against weapon-carrying behavior (Horner et al., 2012). Yet, adolescent weapon carriers are more likely to be in lower grades as a result of academic failure (Stayton et al., 2011). According to Peskin (2012) weapon carriers are significantly more likely to have poor grades in school. Thus, poor academic achievement is a significant risk factor for weapon carriers.

Suspensions/Time factor

Other risk factors for adolescent weapon-carrying are school suspensions, time of day, and time of school year, although the literature pertaining to these variables is somewhat limited. Blumberg et al. (2009) found that school suspensions are a strong risk

factor for adolescent weapon-carrying. Researchers have also found that the time of day or school year to be a risk factor with limited literature. Yavuzer, Gundogdu, and Dikici (2009) found that most violent acts happen at the end of the school day or at the end of classes. Researchers have suggested that future research in regards to risk factors and weapon-carrying should further examine suspensions as a potential risk factor (Blumberg et al., 2009). The researchers also suggest that additional layers of risk factors be identified such as gang membership, neglect, and child abuse (Marsh & Evans, 2007; Spano et al., 2012).

Implications

This literature review has discussed social and behavioral risk factors for students who are at-risk for potentially carrying a weapon to school. This literature review links the theoretical framework of Albert Bandura's social learning theory and the learned aggressive behavior of at-risk students to students carrying weapons to school. It is unknown if the risk factors race, gender, prior fights, suspensions, student achievement, and time of school year/day are equally relevant to the school district that is the subject of this study. Further, it is unknown if identification of the relevant risk factors in this school district could help explain why the current detection and deterrent methods have been unsuccessful.

Overall, previous studies that have addressed students carrying weapons onto school grounds have dealt mainly with prevention efforts. To determine if a relationship is significant between the variables most of the studies used correlation and regression analyses. The information found in this study will advise school policy makers with

providing at-risk students for potentially bringing a weapon to school with the interventions needed to reduce the likelihood of any such incidents from occurring.

Summary

Currently, federal and state law requires each school district to report to their state departments of education any incident involving possession of weapons on school grounds. Risk factors are potential determinants or possible indicators of increased rates of a particular variable (Blumberg et al., 2009). Identifying risk factors or potential determinants of students carrying weapons to school can be demographic such as ethnicity of a minority class, over-age for grade, gender, and the single parent home. Some risk factors for students carrying weapons to school can be behavioral and social variables such as alcohol and drug use, gang involvement, bullying, and prior fights. These are some of the reasons why there is a need to identify and address the risk factors associated with this problem (Fritz & Radka, 2010). Section 2 provides the methodology and research design selected for the study and describes the population and instrumentation used to answer the research questions of the study.

Section 2: The Methodology

Introduction

The aim of this research was to use existing, archival data—collected as part of the school system's everyday practice—to identify potential risk factors for students carrying weapons to school. This study was unique compared to related studies that used self-report surveys related to students carrying weapons to school. This study used data the district collects during day-to-day operations and the district did not have to take on the resource intensive issue of collecting data. In addition, the data were independent reports of actual events in real time as opposed to relying upon student self-reports or recollection. The information learned in this study may help this school district and other school districts like it to develop prevention strategies by identifying students who may be at high risk of carrying a weapon onto school grounds, also the information learned may be used to inform policy decisions.

The study used a quantitative, ex-post facto design. This approach attempted to explain differences in groups by analyzing differences in their experiences (Lodico et al., 2010). Ex-post facto research analyzes the effect of an independent variable on a dependent variable while controlling for other factors (Lodico et al., 2010). This design was justified for this study because it provided the researcher the ability to analyze an independent variable that had already occurred (Lodico et al., 2010). The independent variables were gender, race, student achievement, physical fighting, suspensions and time of school day/year. I sought to learn if there was a significant relationship between these risk factors and weapon-carrying behavior of students (the dependent variable). Ex-post

facto research was used to examine variables that involve categories or dichotomies. Additionally, ex-post facto research was chosen because there was no way I could control which group the subjects were assigned to and it would have been unethical (Lodico et al., 2010). The independent variables are part of who the students are and the experimenter cannot change or assign the categories (Creswell, 2012).

Research Questions

Using quantitative methodology, this study investigated risk factors associated with students bringing weapons to school. A guiding research question and targeted research questions were used to direct this study.

Guiding Research Question

1. Among students who have been caught with weapons at school in this urban school district, what potential risk factors for students carrying weapons to school can be identified?

Research Questions

1. Is there a relationship between gender and weapons carried to school?

   $H1_0$: There is no significant difference between gender and weapons carried to school.

   $H1_A$: There is a significant difference between gender and weapons carried to school.

2. Is there a relationship between race and weapons carried to school?

   $H2_0$: There is no significant difference between race and weapons carried to school.

   $H2_A$: There is a significant difference between race and weapons carried to school.

3. Is there a relationship between suspensions and weapons carried to school?

   $H3_0$: There is no significant difference between suspensions and weapons carried to school.

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4. Is there a relationship between prior fights and weapons carried to school?

   $H4_0$: There is no significant difference between fights and weapons carried to school.

   $H4_A$: There is a significant difference between fights and weapons carried to school.

5. Is there a relationship between student achievement and weapons carried to school?

   $H5_0$: There is no significant difference between student achievement and weapons carried to school.

   $H5_A$: There is a significant difference between student achievement and weapons carried to school.

6. Is there a relationship between time of school year and weapons carried to school?

   $H6_0$: There is no significant difference between time of school year/day and weapons carried to school.

   $H6_A$: There is a significant difference between time of school year/day and weapons carried to school.

7. Which of these above listed variables is most predictive of weapon carrying?

   $H7_0$: All of the above listed variables are equally significant in predicting weapon carrying behavior of students.

   $H7_A$: One of the above listed variables will be shown to be the most influential in the weapon carrying behavior of students.

Population and Sample

The population is defined as the overall group to which the findings of a study are generalizable (Lodico et al., 2010). The population was data from all students attending a public school within the district during the 2012-2013 and the 2013-2014 school years. The students that attended this school district during the 2012 school year through the 2014 school year were identified by a list generated from the school district data base. Access to the list was granted through the school district's office of Planning and Accountability after making official application to use the district's data. I am employed by the school district where the data was collected. I did not collect the data directly nor could I manipulate the data in any manner. The names of the students were removed and replaced with numbers so I was not able to identify students. The data were collected by school administrators and reported to the district using the Pearson School Management System (SMS).

The population of students was divided into two categories: (a) students who were caught carrying a weapon to school during the target time period and (b) students who were not caught carrying a weapon to school during the target time period. There were approximately 160,000 students in this southern school district. This study involved all schools at every level in the district. The district has 261 total schools, elementary through high school. Of the 261 schools in the district, 114 are elementary schools, 55 are middle schools, and 52 are high schools. The aim of this study was to identify potential risk factors for students carrying weapons to school. Moreover, this study aimed to address whether gender, race, fights, suspensions, time of school day/year, and student

achievement were pre-determining factors in weapon carrying students. The results of the data analysis are presented to address the research questions of the present study.

Sampling Method

In this study, data from particular students were sampled using purposeful critical sampling because the participants represent the central phenomenon (Creswell, 2012). This particular sampling strategy allows the researcher to study the critical sample and learn more about the phenomenon. In this investigation, I was studying weapons carried to school. Study participants had already been caught with weapons at school. I took all of the students who had been caught with weapons because these study participants represent an incident that was the extent of this study and in an attempt to gather enough data to conduct the study (Creswell, 2012; Lodico et al., 2010).

The second sampling method used was stratified random sampling, which was used only on the non-weapon carrier group in order to match the number of weapon carriers. I considered simple random sampling; however after looking at the distribution of the actual data I determined that stratified random sampling was needed to control for any effects of school level. The sample was representative of the larger population and afforded me the opportunity to work with a smaller more manageable group of the population. The main reason for doing this was due to an extreme imbalance between the numbers in the two groups: weapon carriers and non-weapon carriers. In this sampling method, there was a random sample taken of non-weapon carriers. The only group that was randomly sampled was the non-weapon carrier group because there were too many of them as compared to the weapon carrier group. In this study, a list of all students in

this urban school district in the southern region of the United States was acquired and then a random sample of students data were sampled to match the number of data points in the purposeful sample to conduct a comparison study. The total number of non-weapon carriers in the district was 158, 214 and that group was enormous compared to 605 in the weapon carriers group. I determined that a stratified random sample was needed when I randomly sampled the group of non-weapon carriers and discovered that elementary students were over represented in the non-weapon carrier group; thus bringing about random stratification to control for a balanced representation of each school level elementary, middle and high. The nature of this particular group was non-weapon carriers who were compared to the weapon carriers while the independent variables of gender, race, fights, suspensions, student achievement, and time of school year/day are analyzed.

Sample Size

Certainly, it is important to select participants for a study. It is important for me to know the size of the sample needed. According to Creswell (2012) a standard technique for selecting participants is to select a large sample from the population to avoid potential error of the sample being non-representative of the population. When calculating sample size for a study three determinants must be considered, the first is to determine the level of significance. The most commonly used level of significance in the social sciences is usually set at .05 or 5% and has the probability of rejecting a true null hypothesis (Creswell, 2012).

The next determinant was to identify the power of the test. Typically the power of the test is set at 80% and has the probability of rejecting a false null hypothesis (Creswell,

2012; Lodico et al., 2010). For the purpose of this study, 80% was selected as the power to more accurately reject a null hypothesis. The final determinant was to determine the effect size, which measures the magnitude of the relationship between the variables in the study (Creswell, 2012). Once I received the data set from the district, I took 100% of the weapon carriers. I was anticipating a small sample of weapon carriers. I then randomly selected a stratified sample of non weapon carriers an equivalent size group. I was correcting and controlling any unintended effects of student age and or education level on the outcome variable of weapon carrying. For example, I took all weapon carrying incidents from the data set which were 605 incidents and matched that number by randomly selecting a stratified sample of 605 non-weapon carriers. Selecting to use random stratification helped me control how many students would be randomly stratified from each level elementary, middle and high school. This was done to account for age and education level that could have had an effect on students carrying weapons to school or being caught with a weapon.

The use of a stratified random sample from the non-weapon carriers was considered given that there may be variables which are unrelated to this study that are not evenly distributed in the weapon carriers sample. For example, I discovered the weapon carriers are unevenly distributed in middle and high schools. To deal with the issue, I downloaded a random number generator and randomly selected 204 non-weapon carrying elementary students to match the number of elementary weapon carrying incidents. I randomly selected 132 non-weapon carrying middle school students to match the number of middle school weapon carrying incidents. I randomly selected 269 non-weapon

carrying high school students to match the number of high school weapon carrying incidents. I stratified the random sample of non-weapon carriers based on the school type variable as it is not being considered as one of the independent variables of interest in this study.

Description of the Sample

The distribution of the sample in terms of stratified random selection for elementary, middle, and high school are presented below. The data set contained 605 weapon carrying incidents from elementary to the high school level. I then randomly sampled using a stratification method 605 non-weapon carriers to match the number of elementary, middle, and high school weapon carriers. The total sample size was 1210. Frequencies for gender and race are shown in Table 2 below.

Table 2
Frequencies of weapon carrying vs. non-weapon carrying incidents by gender and race (N = 1210)

Variable	Total	Carrier	Non Carrier
Gender			
Female	448	147	301
Male	762	458	304
Race			
Asian	11	1	10
Black	948	529	419
Latino	78	29	49
Indian	2	2	0
White	155	38	117
Multi-racial	15	6	9

The number of fighting incidents in the sample was 207. The total number of fighting incidents with non-weapon carriers was 32 out of 605 non-weapon carriers. The total number of fighting incidents with the weapon carriers was 175 out of 605 weapon carriers. Frequencies for fights are shown in Table 3 below as well as number of fights for both weapon carriers and non-weapon carriers.

Table 3
Number of fighting incidents by weapon carriers vs. non-weapon carriers (N = 1210)

Fights	Total	Carriers	Non Carriers
0	1003	430	573
1	152	129	23
2	43	34	9
3	9	9	0
4	3	3	0

The total number of suspensions in the total sample was 759. The total number of suspensions with non-weapon carriers in the study was 188. The total number of suspension incidents with weapon carriers in the study was 571. The total number of weapon and non-weapon carriers without any suspensions was 451. Frequencies for suspensions are shown in Table 4.

Table 4
Suspension incidents by weapon carrier vs. non-weapon carriers (N =1210)

Suspensions	Weapon Carriers	Non-Weapon Carriers	Total
0	34	417	451
1-4	379	140	519
5-9	156	37	193
10-14	32	8	40
15-19	3	3	6
20+	1	0	1

Instrumentation

Data for this study were obtained by using Power School SMS developed by Pearson School Systems (2007). The Power School-School Management System (SMS) is designed to enhance the academic and social outcomes of all students and meet the needs of large K-12 school districts. Besides being a web-based information system, the SMS provides school districts with the tools needed to create an information rich framework for student achievement. Power School SMS is formerly known as Chancery SMS. According to the publisher, Power School is a flexible and reliable solution shaped around the needs of each school district (Pearson, 2007).

Pre-established instruments are measuring tools developed by someone other than the researcher conducting the study (Lodico et al., 2010). The instrument used for this study was Power School SMS which was developed directly by Pearson School Systems. Pearson is a forerunner in the field of education and Pearson knows the challenges of education from achievement to reporting. Power School SMS is a program that provides information on how school personnel may improve information fidelity (Pearson, 2007). According to Pearson (2007) it was found that Power School SMS was a valid, reliable,

efficient, and useful instrument for measuring the fidelity of implementation of individual schools or districts.

The Power School SMS would benefit students because the data would provide feedback concerning student academic achievement and student social outcomes. The Power school SMS is used to measure specific elements which involve attendance tracking, and notification, discipline management and reporting, assessment reporting, progress monitoring for at-risk students, increasing school-home communication, linking academic and behavioral performance, and collecting and using data for decision making. These assessments are used to assist school personnel for making appropriate decisions for students (Pearson, 2007).

Validity

The validity of an instrument refers to the accuracy of which an instrument is measuring what it is supposed to measure (Creswell, 2012; Lodico et al., 2010). To make sure the Power School SMS data give true measurements of the student's actions, the Power School SMS constantly conducts on-going research on the results. To meet the standards of validation, changes are made to the instrument if required. Creswell (2012) stated that instrument development and validation is a process that will be forever ongoing.

In a study conducted by Pearson to determine the concurrent validity, which is the relationship of one instrument and a similar instrument was measured by analyzing the previous student information system compared to Power School SMS, one high school reported the process of doing state reporting was much easier and faster than the former

student information system (Pearson, 2007). Before Power School SMS, writing information on forms, accumulating data, verifying it, and typing it up literally took hours (Pearson, 2007). Overall, this particular high school staff agrees that the switch to Power School SMS has rendered accurate state reporting and improved student learning and social outcomes. While this is promising information about this program, it is important to note that this research was done by Pearson. Pearson is also the publisher of this particular program.

Reliability

The reliability of an instrument refers to scores remaining stable and consistent thorough different periods of time (Creswell, 2012; Lodico et al., 2010). To illustrate the Power School SMS reliability, for example, the data the researcher received was assumed to be reliable because the data was collected as part of the normal business practices of the school system. Data were reported by school administrators and reviewed by district administrators for reporting accuracy and if inaccurate were given back to school administrators for correction. When submitted correctly to the district administration, it was then reported to the state as mandated. This procedure insured the reliability of incidents reported. According to SAVE (2007) schools found in this district are required to report serious incidents to the state department of education. Serious incidents concerning student discipline are tracked via the district's student information management system which is Power School SMS.

Data Collection and Analysis

The existing data were used from all public schools within this school district in the southern region of the United States. On a password-protected computer spread sheet, the raw data from the students of the public schools in this district were saved for future analyses. Student names were not used—only unique identifiers such as student numbers that could not be connected to a specific student by the researcher or any other individual accessing the data set. These data included the important information of the students as well as their weapon-carrying behavior. These data were locked and stored in a filing cabinet. I reviewed the data with the help of trained Walden University support personnel reviewing the data to conduct the statistics. The statistics help that was provided used a data set that was stripped of all identifying information. This was done to ensure confidentiality for each participant in the study.

To address the objectives of the study the statistical procedure used included a logistic regression which is used when the dependent variable is binary rather than continuous. Logistic regression is a kind of generalized linear model that addresses response variables when multiple regression does not get the job done. Another description of logistic regression is that it has the probability of estimating when an event will occur (Triola, 2012). In the logistic regression model, the independent variable can be binary, continuous, categorical, or ordinal, and the dependent variable is always binary (Triola, 2012). In this study, gender, race, student achievement, suspensions, prior fights, and time of school year/day will be the multiple variables analyzed and serving as the predictor variables in relationship to the outcome variable of weapon-carrying.

A chi-square test was conducted to regulate if the observed frequencies which are the risk factors under study show a true difference from the frequencies expected. The observed data were compared to the data that we expected to gather according to a particular hypothesis. To test the null hypothesis, the chi square test was used which mandates there is no compelling difference between the expected and observed findings (Creswell, 2012; Lodico et al., 2010).

Assumptions

The students who attended school in this district found in the southern region of the United States were identified by a list generated from the school district database; it was assumed that the database was accurate. Another assumption was that incidents were accurately tallied and accurately reported to represent the behavior of the identified student.

Scope and Delimitations

The study was narrowed in breadth to participants consisting of any grade level within an urban school district southern United States; it concerned only with weapon carrying behavior and these specific risk factors within this study. Thus, the results may not be generalizable to all states and regions, or to diverse environments such as a rural school district.

Protection of Participants

All information in this study was kept confidential to prevent identification of along with the names and any other items that could possibly identify the participants. Any breach of confidentiality would have deemed this study null and void. I received full

Walden University IRB approval on January 20, 2015. My approval number was 0313846.

I want to clarify that the data requested from the school district was collected as part of its typical business practices. The school district reports these data to the state department of education for review on a regular basis and these cases of weapon carrying are known to the public. Also, the data being requested were devoid of all unique identifiers so that students would remain unknown to the researcher. I submitted a copy of the research proposal on December 12, 2014 to the school district and received preliminary approval to use the district's data (see Appendix B) providing the formal process was carried out to meet district research requirements. The district sought information on protection of participants, impact on instructional time, administrative burden on schools, benefit to the district, and quality of the proposed study. I completed the district's application for research approval and submitted it along with a $25 application fee (See Appendix C). I received full approval from the school district to conduct the study on January 15, 2015 (See Appendix D).

Data Analysis and Results

Data analysis is a process by which raw data are organized so that pertinent information can be obtained. In quantitative data analysis there are different techniques. For the purpose of this study χ^2 and logistic multiple regression were the techniques used.

RQ1. *What is the relationship between gender and weapons carried to school?* To investigate the relationship, a chi-square test was conducted to evaluate whether male or female students were more likely to carry a weapon to school. The two variables were

student gender and carrying a weapon to school. Students who carried weapons to school were positive (+) for carrying a weapon and students who had not carried a weapon to school were negative (-) for carrying a weapon to school. Student gender and carrying a weapon to school (+) were found to be significantly related, Pearson χ^2 (1, N = 1210) = 81.48, p < .001, *Phi* = .264, p < .001. [*OR* = 2.68, 95% *CI* (2.02, 3.57)]. The null hypothesis stated there was no significant difference in gender and weapons carried to school. The null hypothesis was rejected. Male students were three times more likely to carry a weapon to school compared to female students. A similar analysis was conducted for student's race.

RQ2. *What is the relationship between race and weapons carried to school?* To investigate the relationship a chi-square test was conducted to evaluate race as a significant risk factor for students carrying a weapon to school (+) compared to other races. The two variables were student race and carrying a weapon to school. Students who carried weapons to school were positive (+) for carrying a weapon and students who had not carried a weapon to school were negative (-) for carrying a weapon to school. Student race and carrying a weapon to school (+) were found to be significantly related Pearson χ^2 (5, N = 1210) = 3429.81, p < .001. *Phi* = 1.68, p < .001. Asians were 10 times less likely to carry a weapon to school (-) than other races of students. [*OR* = -10.98, 95% *CI* (1.40, 86.08)]. Latinos were two times more likely to carry a weapon to school (+) than other races of students [*OR* = 2.69, 95% *CI* (1.67, 4.31)]. The calculated odds ratio for Indians could not be calculated because Indian weapon carriers = 0. [*OR* = 0]. Multi-racial students were two times more likely to carry a weapon to school (+) than other

races of students [*OR* = 2.49, 95% *CI* (0.88, 7.05)]; however the 95% *CI* includes the value of 1.0. Thus, multiracial students and carrying of weapons to school cannot be considered related. Whites are three times more likely to carry a weapon to school (+) than other races [*OR* = 3.84, 95% *CI* (2.61, 5.65)]. The calculated odds ratio favored Black race students to (+) carry a weapon to school three times more than other races. [*OR* = 3.19, 95% *CI* (2.37, 4.29)]. The null hypothesis stated there is no difference in race and weapons carried to school. The null hypothesis was rejected. Black students and White students both were three times more likely to carry a weapon to school (+) than other races of students. A similar analysis was conducted for students' suspensions.

RQ3. *What is the relationship between suspensions and weapons carried to school?* To investigate this relationship a chi-square test was conducted to evaluate whether students with suspensions were more likely to carry a weapon to school compared to students with or without suspensions. The two variables were student suspensions and carrying a weapon to school. Students who carried weapons to school were positive (+) for carrying a weapon and students who had not carried a weapon to school were negative (-) for carrying a weapon to school. Suspensions and carrying a weapon to school (+) were found to be significantly related. Pearson χ^2 (12, N=1210) = 277.50, $p < .001$. *Phi* = 1.667, $p < .001$. The null hypothesis stated there is no difference between suspensions and weapons carried to school. The null hypothesis was rejected. Students who received five to 14 suspensions had a one in four chance of not being a weapon carrier. The number of students receiving 5 or more suspensions was 240, for every one student in this group that was not a weapon carrier there were three who were

weapon carriers (See Table 3). Five or more suspensions correlate to a chance of carrying a weapon to school. The relationship between suspensions and carrying a weapon to school was found to be statistically significant $p < .001$. The odds ratio of carrying a weapon increased for students with suspensions [*OR* = 1.398, 95% *CI* (1.32, 1.49)].

RQ4. *What is the relationship between fights and weapons carried to school?* To investigate this relationship a chi-square test was conducted to evaluate whether students who *fight* were more likely to carry a weapon to school compared to students who *do not fight*. The two variables were student fights and carrying a weapon to school. Fights and carrying a weapon to school (+) were found to be significantly related. Pearson χ^2 (4, *N*=1210) = 3798.50 $p < .001$. *Phi* = 1.771, $p < .001$. The null hypothesis stated there is no difference between fights and weapons carried to school. The null hypothesis was rejected. The relationship to fights to carrying a weapon was found to be statistically significant $p < .001$. A pattern of fighting correlates to a (+) chance of carrying a weapon to school. [*OR* = 3.785, 95% *CI* (2.64, 5.42)].

RQ5. *What is the relationship between student achievement and weapons carried to school?* The data that were given did not yield information that would allow the researcher to conduct a statistical test. The researcher was using archival data that had already been collected by the district. Furthermore, it was unknown to the researcher prior to the development of the study that these data would not be available. The whole purpose of the study was to use data that already had been collected as part of the normal business operations of the school and not force the collection of new data.

RQ6. *What is the relationship between time of school day/year and weapons carried to school?* The data that were given did not yield information that would allow the researcher to conduct a statistical test. The researcher was using archival data that had already been collected by the district. Furthermore, it was unknown to the researcher prior to the development of the study that these data would not be available. The whole purpose of the study was to use data that already had been collected as part of the normal business operations of the school and not force the collection of new data.

RQ7. *Which variable is most predictive of weapon carrying?* To investigate the relationship a logistic regression was conducted to evaluate which independent variable was most predictive of student weapon-carrying. The variables evaluated were gender, race, suspensions, and fights. Logistic regression was conducted to assess the relationships and the probabilities for each of the covariates (predictors) that could potentially identify students as weapon carriers. In the logistic regression model, the independent variable can be binary, continuous, categorical, or ordinal, and the dependent variable is always binary (Triola, 2012).

RQ7 aimed to investigate which of the independent variables was most predictive of weapon carrying behavior. The data analysis shows suspensions, race, fights and gender ($p < .000$), to be significant predictors of identifying students as weapon carriers. Furthermore, the study results showed all of the variables tested (gender, race, suspensions and fights) to be significant and it could not be determined which one was the most predictive because they were all significant (See Table 5).

There is no definitive way for ranking significant predictor variables based on the Logistic regression results. In other words, when all of the variables are significant at the same level there is no established method for determining which relative amount of influence each independent variable has on the dependent variable (Thompson, 2009). The other variables (time of school day/year and student achievement) were not tested because the data that were given did not yield information that would allow the researcher to conduct a statistical test.

Table 5
Data analysis results of variables in the equation

Variables	B	SE	Wald	df	Sig.	Exp(B)	95%CI
Suspensions	.335	.031	114.87	1	.000	1.398	(1.32, 1.49)
Race	-.247	.057	18.93	1	.000	.781	(.699, .873)
Gender	.988	.145	46.16	1	.000	2.686	(2.02, 3.57)
Fights	1.331	.183	52.74	1	.000	3.785	(2.64, 5.42)
Constant	-1.94	.290	44.73	1	.000	.143	

Conclusion

The objective of the present study was to examine whether predictors (independent variables) of weapon carrying behavior could be identified using data collected by this school district during normal day-to-day operations. Results of the data analysis showed that race, gender, suspensions and fights were all significant as potential predictors of students who carry weapons to school. Student race and carrying a weapon school were found to be significantly related. Black and White students both were three times more likely than other races to carry a weapon to school. Student gender and

positively carrying a weapon to school were found to be significantly related. Males were three times more likely than female students to carry a weapon to school.

Suspensions and carrying a weapon to school were found to be significantly related. Students who received five to 14 suspensions had a one in four chance of being a weapon carrier. A high the number of suspensions correlates to a chance of carrying a weapon to school. The relationship of fights and carrying a weapon was found to be statistically significant. A pattern of fighting correlates to a chance of carrying a weapon to school. As stated above the data set did not yield the information needed to analyze the independent variables: time of school year/day and student achievement. The results of this study compared to previous studies on this topic are similar. The findings of this study did not uncover any new information; however I can confirm previous research pertaining to males are more likely to carry a weapon than a female (Blumberg et al., 2009; Brown et al., 2009; Esselmont, 2014; Fritz & Radka, 2010; Horner et al., 2012; Marsh et al., 2009; Nickeson & Slater, 2009; Peskin et al., 2009; Spano et al., 2012; Stayton et al., 2011; Thurnherr et al., 2009; Vaughn et al., 2012; Walsh et al., 2013; Yavuzer et al., 2009). Students who have a pattern of suspensions are more likely to carry a weapon to school than students who do not have a pattern of suspensions (Blumberg et al., 2009).

Students who are involved in fights are more likely to carry a weapon to school (Brown et al., 2009; Horner et al., 2012; Marsh et al., 2009; Nickerson & Slater., 2009; Peskin et al., 2009; Stayton et al., 2011; Thurnher et al., 2009; Vaughn et al., 2012; Yavuzer et al., 2009; Yun & Hwang, 2011). Black students and White students are more

likely to carry a weapon than any other races. (Blumberg et al., 2009; Brown et al., 2009; Esselmont, 2014; Fritz & Radka, 2010; Horner et al., 2012; Marsh et al., 2009; Nickerson & Slater, 2009; Peskin et al., 2009; Stayton et al., 2011; Spano et al., 2012; Thurnherr et al., 2009; Vaughn et al., 2012; Walsh et al., 2013; Yavuzer et al., 2009). The project deliverable will be in the form of a policy recommendation established on the findings of this study. The current policy will be reviewed and summarized. Recommendations will be presented to the partnering school district to promote social change within this district and other districts like this one. The information learned may be used to inform policy decisions and create more effective prevention and intervention strategies.

Section 3: The Project

Introduction

Despite the fact that school systems around the country have put forth sustained efforts to stop weapons from entering their schools, students carrying weapons to school continues to be a concern, both locally and nationally. Notwithstanding the school district's efforts at the research site, students continued to carry weapons into school. Therefore it was imperative to conduct a study to acquire a better knowledge of risk factors that lead to students carrying a weapon to school. After obtaining these data and conducting a data analysis, I was guided toward writing a policy recommendation as a project that would aid in identifying and understanding the characteristics of potential weapons carriers at the research site.

Developing a professional development training curriculum does not address the issue of students carrying weapons to school. Professional development training curricula are ongoing learning opportunities that are better used to support school personnel. Writing an evaluation report would not have provided the opportunity to address the issues that affect students carrying weapons to school because an evaluation report would show that the schools are effective in a reactive manner only. The chosen product deliverable was a position paper, including a policy recommendation (See Appendix A) because I took the position of using a proactive approach to address students who carry weapons to school. The goal of this project and the aim of this document was to present a policy recommendation, position paper to the district leadership of this southern school district found in the southeastern part of the United States.

In this section, I cover the description and goals of the project, the rationale for addressing the problem, a review of literature, the proposed implementation schedule, the evaluation process for the project, and the implications for social change.

Description and Goals

The results of this study formed the foundation for a position paper, including a policy recommendation. The goals of the position paper were to provide a description of the current policy, provide evidence of the need to initiate change, present new policy options for consideration, analyze the pros and cons of each option, and provide a recommended course of action and rationale for selecting the prescribed course of action. The framework used in this study was based on the current policy, which does not avert students from carrying weapons to school. The new position paper, including a policy recommendation will present a proactive method that will assist in deterring student weapon-carrying behavior.

Rationale

After reflecting on the data received and analyzed in Section 2 of this study. I decided to do a policy recommendation, position paper. Thoughtful and careful consideration was given to the selection of the project genre. Developing an evaluation report, writing a curriculum plan or creating a professional development/training curriculum would not have provided the opportunity to address the issue of students carrying weapons to school. A disadvantage of an evaluation report is that the topic being addressed can be lengthy. Lengthy documents will unlikely be read and most evaluation reports are usually embargoed (Lodico et al., 2010). A disadvantage of using a

curriculum plan for this project would take the focus away from academics and place the objective on educating. A curriculum plan was not chosen because it is a way for teachers to objectively look at what needs to be taught and I did not want to propose using academic instructional time to focus on students and weapon-carrying behavior. A disadvantage of using a professional development training model is it has to be purchased and at the current time this district is in on a tight budget with no room for extra purchases.

A policy recommendation was selected because it is the most direct means of addressing a policy issue. The project genre was motivated by the current means (reactive) of the district for dealing with weapons on school campus. This policy recommendation, position paper justifies the need to implement proactive strategies that will deter students from carrying weapons to school before the weapon-carrying behavior begins by identifying risk factors associated with the behavior. The role, of the teachers, would be to keep administration informed of student misbehavior correlating with associated risk factors of students carrying weapons to school which is reported on an everyday basis. The role of the administration is to report data accurately to the department of education. A significant finding from the study was students who have a pattern of suspensions and a pattern of fighting were two times more likely than other students to carry a weapon to school. Another significant finding was male students were three times more likely to carry a weapon than females. Race was a significant risk factor involving students carrying weapons to school. Consequently, the district needs to reevaluate the current policy for weapon carrying students and implement a more proactive approach to dealing

with weapons carried to school. Using this concept to write a policy recommendation, the policy will address the issue of students carrying weapons to school. This could potentially lead other school districts to apply the policy recommendation to the schools within their district.

According to CARDI (2012), policy recommendations attempt to educate people who are dealing with policy choices on certain issues. Presenting valid research and evidence can help to make the best decisions. Policy recommendations that have the best chance of being approved are cost effective and account for international best practice. The development of a policy recommendation, position paper is to aid school leaders and the district in comprehending the benefit of considering a policy change by providing researched based evidence as it relates to the current policy. This policy recommendation also provides guidelines for intervention strategies that will assist school leaders as they labor to eradicate weapon-carrying incidents in the schools.

Review of the Literature

A policy recommendation is a written document that is prepared for a group of people who have the authority to make decisions and change policy (Doyle, 2013). A policy recommendation is the best way to inform lawmakers or senior decision makers of a policy issue (The Center for Ageing Research and Development in Ireland [CARDI], 2012). The decision makers may accept a policy recommendation as sound factual advice or dismiss a policy recommendation in favor of another option. The decision is dependent upon the presentation of the justifying arguments and the recommended course of action. In addition, this research informs the reader of studies that have employed policy

recommendations as a corrective form of action to the current situation or policy. Keywords and phrases were also used in the databases while searching for online materials for this literature review which include: "*policy recommendation", "policy development", "policy analysis", "policy framework", "and "policy changes"*. The literature within this review was acquired through scholarly writings. These documents were acquired by online journal and publisher, obtained directly from the library, and by downloading the articles from the Walden University Online Library.

A policy recommendation should be completed in sections. This ensures the writer of the policy that every aspect of presenting a policy recommendation has been included in the document (CARDI, 2012). Although, an Irish source was used it does not matter as the information given applies to a method and not to a nationality. Well written policy recommendations have the following components: (a) define the objective (b) target an audience (c) clearly present the issue (d) provide alternatives (e) provide cost effectiveness (f) works with other strategies (g) provide similar examples (h) written in simple language (i) support social change and (j) emphasize taking action (CARDI, 2012). The overall goal is to write a policy recommendation, position paper which allows schools in this district to use discipline data to identify risk factors significantly associated with student carrying weapons to school.

Define the Objective of the Policy Recommendation

Providing a clear objective for policy recommendation is based on research that helps to influence decisions (CARDI, 2012). The objective for providing policy recommendation on the issue of students carrying weapons to school is based on the fact

that schools in this district have put forth sustained efforts to stop weapons from being brought into the schools; yet students continue to carry weapons to school. The objective is a change in an existing strategy to improve an existing policy. The current state statute where the study school district is located (Tennessee Code Annotated § 39-17-1309) states "it is an offense for any person to possess or carry openly or concealed any weapon not used solely for instructional purposes or school sanctioned ceremonial purposes". For example, if a school has a Junior Reserved Officer Training Corp (JROTC) program and the instructor used an unloaded real weapon to instruct the class this would be permissible.

In this particular district, the statute is executed in this manner and upheld in the district within the student code of conduct policy #6022, when a student infraction involves the possession of a weapon, the student is expelled for 180 school days by the school principal or designee, the student is referred for threat assessment by the Office of Student Support, and the parents are informed by the Office of Student Support and school administrator that the case is under deliberation pending conclusion of the threat assessment. Threat assessment results are used in making recommendations for appropriate placement which usually result in alternative schooling or schooling through a transition program as a means to provide safety to others and the student.

The problem, under the current policy, is students are carrying weapons to school and being expelled from school before receiving any assistance from the district to correct the issue. The district waits until the student brings the weapon to school before assisting the student even when all the actions of the student directly correlate to

becoming a weapon carrying student. Students manifest many risk factors and those risk factors that correlate to students carrying a weapon to school should be identified and addressed before the student becomes a weapon-carrying student. This is what the proposed policy recommendation, position paper is presenting.

The proposed policy objective suggests using the results of this study as evidence to revise the current policy. The findings suggest that risk factors such as gender, race, fighting, and suspensions can be used to identify potential weapon carriers before the weapon-carrying behavior begins. It would be helpful to students if the risk factors were identified because the student could now start receiving the assistance needed to address the issue before they become a student that carries a weapon to school and identifying risk factors associated with students carrying a weapon and providing the assistance needed to deter the weapon-carrying behavior will keep those students in school safely.

The proposed policy emphasizes the current policy as reactive to students carrying weapons and not proactive in deterring the weapon-carrying behavior. The results of this study showed that students who are Black or White are three times more likely than any other race to carry a weapon to school. Latino students were two times more likely to carry a weapon to school than any other race. Male students were three times more likely than female students to carry a weapon to school. Students who received 5 to 14 suspensions had a one in four chance of not being a weapon carrier. The proposed policy recommendation utilizes student data to identify risk factors that correlate with weapon-carrying behavior to intervene prior to students carrying weapons.

Target an Audience for the Policy Recommendation

When targeting an audience to present a policy recommendation, the presenter must know who the key stakeholders are and how the presented research will interest the targeted audience (CARDI, 2012). In this study, the targeted audience is the school board. This group is a targeted audience because they have the power to revise the current school policy. Other targeted audiences are parents, administrators, teachers, and community partners. These groups are targeted because they can be influential in the choice made by the first targeted audience. Most school districts provide great customer service to the community stakeholders by listening to their concerns and addressing them supportively and by targeting those stakeholders there would be a strong sphere of influence on the school board to change the policy.

Musandu (2013) states identifying your target audience will ensure that you have selected the group with the strongest sphere of influence. Regarding the audience, it appears that strategically selecting your audience for your policy recommendation is a non-negotiable. Recent studies cite strategically selecting your audience as imperative. Thus a common strategy for policy recommendations is to know where the sphere of influence lies (CARDI, 2012; Cohen, 2013; Cornell & Limber, 2015; Herrera et al., 2010; McGinty et al., 2014; Musandu, 2013; O'Connell, 2013; Sprague & Hu, 2015; Van Hout, 2011; Voogt & Knezek, 2013; Wagner, Shubair, & Michalos, 2010).

Present Problem for the Policy Recommendation

Define the problem clearly using as much detail as possible that is directly linked to research (CARDI, 2012). In this doctoral project study, the problem is that within a

large urban school district in the southern region of the United States, over 100 weapons have been found in the schools within the (2011-2013) school years, despite putting measures in place to deter students from carrying weapons to school. The weapons found on school grounds in this school district ranged from razors to hand guns. Within this state, the state department of education reported 57 handgun possessions on school campuses in 2011-2012, and 66 handgun possessions on school campuses in 2012-2013. The state also reported incidents involving weapons other than a firearm. In 2011-2012 there were 1,151 possessions of a weapon on school grounds that were not a firearm. In 2012-2013 there were 1,154 possessions of a weapon on school grounds that were not a firearm (DOE, 2014). This evidence suggests a need for change.

Consequently, all of the weapon-carrying students found in this district were expelled and remanded to threat assessment for placement in an alternative school setting according to the current policy under the Student Code of Conduct policy #6022. This doctoral study project opposes that reactive measure and advocates a proactive measure which emphasizes the use of data that is collected on an everyday basis to identify potential weapon carriers as these data correlate to weapon-carrying behavior. All policy recommendations are best presented when based on the best available research (CARDI, 2012; Cornell & Limber, 2015; Du, 2012; Herrera et al., 2010; Musandu, 2013; McGinty et al., 2014; O'Connell, 2013; Shore et al., 2015; Spargue & Hu, 2015; Voogt et al., 2013; Wagner et al., 2010). Thus, a policy recommendation is free of deception and can be understood by everyone.

Provide Alternatives for the Policy Recommendation

When there are alternative approaches that can be used to solve the issue, the advantages and the disadvantages are presented based on research evidence (CARDI, 2012). This kind of evidence helps researchers to make an informed decision. The current study can be used to provide an alternative to the current policy which utilizes risk factors as covariates to identify potential weapon-carrying behavior before the behavior begins. According to Shanahan et al. (2013) to better inform policy debate, policies should have alternatives and recommendations that lead policy makers to select the best policy option and make the most appropriate decision. Policy analysis involves written suggestions given to administration or some other authority that has power to make changes to policy in a school or district (Naidu, 2011). Thus, policy analysis is defined as which alternative policy provides more evidence to reach a given set of goals.

Cost effectiveness of the Policy Recommendation

Policy recommendations must consider cost effectiveness. Policy recommendations that are feasible and can solve issues are highly welcomed by policy makers (CARDI, 2012). The findings of this study may be used to inform the policy recommendation, position paper. The current study proposes using data that is collected on an everyday basis by the school to identify risk factors that correlate to students and weapon-carrying behavior. The district would not incur any additional charge to the current budget or present a need to expend additional human resources. Professionals that work with these data are also currently employed by the district. Cost-neutral recommendations are favorable by policy makers as well. Researchers argue that when

they are cognizant of not adopting any unfunded mandates they can avert higher cost (CARDI, 2012; Cornell & Limber, 2015; Du, 2012; Herrera et al., 2010; McGinty et al., 2014; O'Connell, 2013; Shanahan et al., 2013; Shore et al., 2015; Sprague & Hu, 2015; Voogt et al., 2013; Wagner et al., 2010). Therefore, the current study will attempt to avert cost as best as possible.

Working Strategies of the Policy Recommendation

The current study emphasizes the use of data that is collected on an everyday basis as part of the normal school operations. This strategy works well with gathering the data needed to identify risk factors that correlate with weapon-carrying students. In recent studies, researchers argue that policy can have an independent impact outside of being evidence based research as it shows how it works well with an existing program or strategy (CARDI, 2012; Cohen, 2013; Cornell & Limber, 2015; Herrera et al., 2010; McGinty et al., 2014; Musandu, 2013; O'Connell, 2013; Sprague & Hu, 2015; Van Hout, 2011; Voogt et al., 2013; Wagner et al., 2010). Thus the current study, expresses the harmonious implementation of the proposed recommendation.

Similar Examples for the Policy Recommendation

A well-constructed policy recommendation will use examples of selected strategies to show its effectiveness. Ryan, Katsiyannis, Losinski, Reid & Ellis (2014) reviewed the policies of other states regarding medication given to students during school hours to write policy recommendations for the same issue. Similarly, de Lange, Jackling, and Basioudis (2013) investigated data and policies from five different countries to write policy for continuing professional development for accountants. Likewise, Romijn (2012)

explored the policies of other countries to find best practices for developing policy on minimizing the restrictions in the care for the mentally challenged in the Netherlands. The current study reviewed the policies of other school districts within the state and other school districts in other states for effective policy recommendation regarding students carrying weapons to school. CARDI (2012) states it is wise to check if other countries or governments have adopted similar policies. Thus, a proper step in recommending policy is to consider what others have done to solve the problem.

Simple Language of the Policy Recommendation

Policy recommendations should be written in plain, simple to understand language. The audience to which the policy recommendation is written will be more interested in the richness of the research (CARDI, 2012). In recent studies, Wee (2011) and Watkins et al. (2012) argued for the practical importance of policy formulation to inform and not be annulled by scholarly understandings. In another study, Du (2012) suggested that researchers use a readable writing style to expand the number of people who can understand the policy recommendation. The current study uses language that is understood by informed individuals to maximize the number of stakeholders understanding the policy recommendation. Therefore, regardless of the complexity of the issue the ideas must be readable, clear, and comprehended by everyone.

Social Change of the Policy Recommendation

A high importance of a policy recommendation is to show how the policy recommendation benefits society at different levels and illustrate its effectiveness in the real world. Recent studies cite support for social change in policy recommendations not

as a government act but as a civil duty of society where citizens begin to demand change (CARDI, 2012; Bertot, Gorham, Jaeger, Sarin, & Choi, 2014; Cohen, 2013; Cornell & Limber, 2015; de Lange, et al., 2013; Du, 2012; Herrera et al., 2010; Kos, 2010; McGinty et al., 2014; Musandu, 2013; O'Connell, 2013; Ryan et al., 2014; Shore et al., 2015; Shanahan, 2013; Sprague & Hu, 2015; Triplett, 2014; Van Hout, 2011; Voogt et al., 2013; Wagner et al., 2010). The current study emphasized social change by looking at risk factors as a way to better understand the problem of students carrying weapons on school grounds which may lead to identifying better solutions for the future.

Taking Action on the Policy Recommendation

Policy recommendations must demonstrate how the problem discussed is imperative and how the recommended and pursued course of action will benefit society when action is taken (CARDI, 2012). The results of the current study suggests, developing a policy recommendation, position paper and delivering it to the targeted audience for consideration at the beginning of the upcoming school year. An understanding of the current support for students that carry weapons to school coupled with how improved supports could be implemented will inform and generate discussion at all levels individual, local, and government (Hoessler & Godden, 2015).

Implementation of the Policy Recommendation

This project will be carried out beginning the next school year in July 2016. The school board of this particular school district holds an open forum to discuss suggested revisions to current policy once every two years in the month of July. If approved, the

ratified policy will go into effect at that time to give stakeholders and non-stakeholders an opportunity to comprehend the new changes.

The new policy recommendations if adopted should execute a smooth transition. To ensure the new policy recommendations are acceptable and wanted, I will present the new policy recommendation, position paper to a cabinet of school administrators representing all levels of school elementary, middle, and high in the spring of 2016. I understand that stakeholder support for the new policy will strongly influence school policy makers. I will present in the month of July 2016 in a public forum school board meeting to the school board policy committee the results of this study electronically. The entire process will be finished by the summer of the 2016.

Potential Resources and Existing Supports

As an existing support and resource, the new policy will be a revised version of the current policy. This will not mandate a drastic change in school operations. Another existing support is that the manner in which the data is gathered is part of the normal school operations on an everyday basis. A resource will be the Power School-School Management System (SMS). The data that is collected will be entered in to this school management system for state reporting purposes.

Potential Barriers to Policy Approval

Although, the findings showed significant correlations for most of the observed risk factors, the school board may not want to change the current policy. The school board may not want to use the confidential information of students as a way of identifying if they have the potential to become a weapon carrying student. Most school

districts have a confidentiality clause regarding the use of student personal information; however if use of the information outweighs the harm of disclosing the information then the information may be permitted to be used for the sole purpose of providing safety to the individual or others. The main barrier is the policy recommendation, position paper not being approved by the district's school board.

Proposal for Implementation and Timetable

The new policy recommendations to the current policy should execute a smooth transition. To ensure the new policy recommendations are acceptable and wanted, I will present the new policy recommendation, position paper to a cabinet of school administrators representing all levels of school elementary, middle, and high in the spring of 2016. I understand that stakeholder support for the new policy will strongly influence school policy makers. I will present in the month of July 2016 in a public forum school board meeting to the school board policy committee the results of this study electronically. The entire process will be finished by the summer of the 2016.

Roles and Responsibilities of Student and Others

Conducting this study, I accepted the responsibility of adhering to the guidelines of ethical research. Additionally for this study, my responsibilities were to request data to be used from my school district. It was also my responsibility to provide a quantitative analysis of the findings. Another responsibility of mine was to develop the proposed policy recommendation position paper. It will be my responsibility to present the position paper to a cabinet of administrators. It will also be my responsibility to present the position paper to the school board and it will then become the role and responsibility of

the school board to accept the policy recommendation, position paper and set a time period for implementation if the school board chooses to move forward.

Implications Including Social Change

Local Community

This project investigated students that carry weapons to school by correlating risk factors associated with weapon-carrying behavior. The policy was designed as a proactive approach to students carrying weapons to school as opposed to being reactive when the weapon has already been brought to the school campus by a student. The project is important to members of the community because students are carrying weapons to school and the reasons are associated with many risk factors. The very act of a student carrying a weapon to school is the motivating force behind the writing of this policy recommendation. Furthermore, community members can see that the school district is making decisions that adversely affect students who carry weapons to school. Finally, this project is significant to the local community because it recommends a policy that addresses a serious issue in this school district that compromises the safety of all students attending a public school.

Far-Reaching

Students carrying weapons to school is a terrifying thought. To think students are carrying weapons into schools where we send our children is all the more terrifying. I believe with the success of this policy recommendation within this school district that other districts within the state may adopt a similar approach presented in this policy recommendation. I also believe with the success of full implementation of the policy

recommendation in this district; it may be adopted by some other districts within this state or some similar districts in other states.

Conclusion

This section was dedicated to describing the project deliverable a policy recommendation, with a position paper. A description of the project began this section followed by the goal of the project which was to write a policy recommendation with a position paper which allows schools to use discipline data to identify risk factors significantly associated with student carrying weapons to school. A review of literature was presented to give substance to the project deliverable. The rationale of adopting a policy that is proactive in its efforts as opposed to reactive is the key issue. An implementation plan was discussed with a time frame to be completed. Finally section 3, consummates with comments on local and far-reaching implications that have the potential to create social change. Finally, section 4 allows the researcher to reflect on thoughts as a practitioner, on experiences involving the project study, and on the project deliverable. In Section 4, I reflect on the project and my roles and responsibilities.

Section 4: Reflections and Conclusions

Introduction

In this section, I discuss the strengths of the project along with the limitations of the project and my scholarship. I discuss recommendations for alternative approaches to modify the current policy. In the scholarship piece of this section, I will discuss what I learned about myself as a scholar practitioner. Project development and social change are also discussed. The final reflection piece will consist of application of the position paper, including a policy recommendation, implications, and directions for future research. This section provides the opportunity for me to reflect on the project as a whole and analyze my growth as a scholar practitioner.

Project Strengths

As an administrator in this school system, school safety is of everyday importance and this project addresses a critical issue in my local school district. I know that research is the best way to develop strategies that will improve or better target areas of concern. The strength of the project deliverable is that it offers a process of policy development. I used the most effective method known, a policy recommendation, to change or revise policy (CARDI, 2012). This project deliverable whether accepted or dismissed in favor of another option, is dependent on how well the research evidence supports the policy change (CARDI, 2012).

The current policy addresses student weapon carriers using a reactive approach. The policy recommendation came from the lack of proactive methods in the previous policy in its approach to deter weapon-carrying behavior of students. The new policy

recommendation is stronger because it uses data that correlates with students who carry weapons to school. The overall strengths of this project deliverable are twofold: (a) it addresses a critical issue concerning student safety and (b) the structure in which a policy recommendation should be written as noted in the literature review of Section 3.

Recommendations for Remediation of Limitations

As stated previously, the project goal was to write a position paper that included a policy recommendation. I used a strong method; however everything has limitations. One limitation of this project is this policy recommendation addresses the issue of students carrying weapons to school in this particular district. Although the district is large in size, it is limited by representation of all-risk factors creating a specific focus to this particular district. There may be other risk factors that were not studied and may not have an equal or higher correlation to these risk factors. This study presented other risk factors that were intended to be studied but had to be set aside due to limitations in the archival data set. The selected risk factors that were used to conduct this study were selected as focus areas to correlate student weapon-carrying behavior within this district.

Other districts conducting this same study may select focus areas more specific to that particular district. Another limitation of this project was the school district may not have the reserves to carry out the suggestions provided in the position paper. Another issue that may limit this project is timing, the district may have committed to other projects in a manner of priority thus making this recommendation limited in need at the present time.

Alternative Approaches

This position paper, including a policy recommendation was designed to address a school district policy with a policy recommendation. An alternative way to address the problem is to prepare an evaluation report of the issue. An evaluation report is the main work of the evaluation process. It serves to provide a clear basis for accountability of results. An evaluation report evaluates a program that has been implemented. I did not select this approach because ultimately an evaluation report would have lead to the possible writing of a policy recommendation to invoke change.

A policy report is a summary of the findings of a program evaluation (Lodico et al., 2010). Another approach to this problem could have been a curriculum plan that involved every student in the school to participate in a semester class which promoted school safety and taught proactive strategies against students carrying weapons to school. I did not select this approach because that method takes away from academic instruction. The researcher has selected the best possible method to address this problem in this particular school district. The best way to change policy is with a policy recommendation (CARDI, 2012).

Scholarship

My doctoral journey at Walden University has taken me through a scholarly transformation. I know without uncertainty the use of empirical evidence is the best way to address issues of concern. Scholarship is knowledge acquired from research and study in a specific field. I have worked in the educational field for over 20 years and I thought the method and strategies I used were best practices in the field of education to solve

problems; however the best of all practices is research based evidence to implement effective change. My acquisition of knowledge started with the writing of the proposal. The proposal taught me how to conduct a full literature review to the point of saturation.

I first learned much needed writing skills. This skill will help me in my everyday communication with faculty and staff. I learned how to conduct searches using key words and phrases to distinguish among the topics. Another skill that I have acquired from reading so many peer reviewed articles is how to paraphrase the article to understand the key findings of the article. I also learned during the data analysis how to use and operate an Excel spreadsheet as well as the SPSS program. These skills will also be beneficial in my work setting as I use data to help create solutions to problems.

Finally the writing of a policy recommendation with a position paper was all newly acquired knowledge. I had never thought about writing policy and I did not know how to begin the process. Subsequently, after conducting a literature review concerning policy recommendations and their structure a policy recommendation with a position paper was produced to suggest change in the current policy. As a scholar, I hope to continue with future publications such as books and other research in the field of education.

Project Development and Evaluation

The biggest lesson I learned was policy recommendation is a very structured procedure that involves research and that research exposes a public policy issue. I understand all of the necessary steps to develop a quality and favorable policy recommendation. I started with defining the objective, strategically selecting an audience,

clearly presenting the issue, providing alternatives, cost effectiveness, works with other strategies, uses similar examples, written in common language, shows support for social change, and emphasizing taking action. The development of this project beginning with the literature review really prepared me for the development of a policy recommendation. The policy recommendation developed from the analyzing of data collected and the researcher made an informed decision based on the data collected to develop a policy recommendation.

Leadership and Change

A leader is one who leads a group or organization to an agreed upon goal. Leadership involves the leader to establish a clear vision with others; by providing resources and strategies to achieve the goal and monitoring the application of the strategies by those who are members of the group or organization (Bambrick-Santoyo, Lemov, & Peiser, 2012). This doctoral study project has refined me as a leader. I have now added to my leadership skills the ability to lead and initiate policy change through policy recommendation. I also have learned through this doctoral study project that the use of empirical evidence is the best way to present strategies, best practices, and data (Marley & Carbonneau, 2014). I always have seen myself as a leader; however now that I have refined my leadership skills I know that I will have an impact on my educational setting and district as well.

The impact I want to have on my school district as a change agent may not always be in the form of recommending a policy change. I am confident that I will impact my school district and education setting as a change agent because it easier to present data to

a group or audience if the data is researched based. Leaders who lead with this perspective will bring about change because an old cliché states that the numbers do not lie. Evidence that can be proven has a significant advantage over any other evidence. I have become a leader who has grown to understand that effecting change must be done with empirical evidence and vast amounts of research to support the evidence.

Analysis of Self as Scholar

Reflecting back on my doctoral journey and analyzing my doctoral project, I would say that I have learned to endure hard work as a good soldier. A scholar is an expert in a particular field of study. My scholarly qualities, on the topic of students carrying weapons to school, involved me conducting a literature review that supported my doctoral study project. I first researched what was being done locally, and then within the state, and then nationally, and finally within other countries. This provides a scholarly perspective that is well outlined and focused on strategies and best practices that are aligned with the project. I have also learned how to operate and navigate program software such as excel spreadsheets and SPSS. There were also a number of skills that I improved during this doctoral journey such as writing, typing, time management, organization, and the use of Microsoft Word.

I have come to understand that I am a life-long learner. I relish learning new skills and ideas and this doctoral journey has taught me many. I am committed to helping the students and community that I serve. The project deliverable, a policy recommendation position paper, will help me begin to help those that I serve as I continue to conduct research and learn from others research best practices that benefit students most. As I

continue as a life-long learner, I will use the skills acquired to operate as a change agent and make a difference in the world. My confidence has grown tremendously because of my project deliverable.

Analysis of Self as Practitioner

A practitioner is a person who routinely does an activity that requires skill or practice. As I use research based evidence to recommend a policy change, I am sure that this will not be the only time that I will use research based evidence to support change that benefit students and communities. The project deliverable has required me to conduct empirical research on students and carrying weapons to school. I have studied the current policy and have exposed the weaknesses.

I have written a policy recommendation with a position paper, to strengthen the weaknesses of the current policy. I have provided other alternatives to the problem and selected a target audience to which to present the policy recommendation. I have provided a timetable in which the policy recommendation can be implemented if the school district chooses to do so. I want to make it clear that I will not be responsible for the implementation beyond the step of presenting the project deliverable to the school board for consideration. This doctoral study has equipped me with a skill that I will use to act as a change agent conducting research that will benefit all students. I will continue to use empirical evidence to promote change.

Analysis of Self as Project Developer

The development of this project began in Atlanta, Georgia, while attending my academic residency. We were asked to think of a problem or issue in our current school

districts that we would like to address by developing a problem statement. Each draft that I submitted I thought was awesome work. I became frustrated by the required revisions. My committee showed me and it became evident to me that my project needed clarification. My project consisted of unanswered questions, and writing that was confusing. As I submitted each section of the project my chair challenged me not leave any unanswered questions and to be clear in my writing, I was required to make revisions until my proposal was clear, had direction, was well structured, free of grammatical errors, and reader friendly.

I am confident in my abilities to develop and write policy. The steps that go along with policy development and recommendation are aligned with the requirements needed to bring change to an idea that has become outdated or no longer serves as the best way to address a problem. I have demonstrated the fortitude, determination, and perseverance needed to develop this project in the scholarly manner in which all doctoral projects are presented. In my role as an administrator, leadership requires an effective vision and project development skills will cultivate an academic culture where all students can reach their maximum potential. The development of this project deliverable has given me the confidence that I needed to effectively promote change that was overdue within a particular school district.

Reflection on the Potential Impact on Social Change

The impact my project can have on social change is it offers specific and well defined evidence to a problem. It also provides the school system information and options it did not have before I completed this work. My project study can be used by future

school administrations or other school districts as a model on how to conduct this kind of research and develop policy recommendations in this area. Within this particular school district, the implemented policy change and solution may have a tremendous impact. Presenting the information to the school board in the public forum could raise the awareness of families, teachers, and classmates while providing the support to those students that have displayed risk factors associated with a student carrying a weapon to school. I am writing a policy recommendation for a school district that is reactive to risk factors that correlate with weapon-carrying behavior hoping to provide a social impact on a school district and community.

Conducting this research, I learned the process of how to write a policy recommendation and how to use policy recommendations to promote social change. So many children manifest behavior that correlates with weapon-carrying behavior; however assisting those students with the proper help can be social change for those students alone. It is well known that students who stay in school and finish as opposed to being expelled and eventually dropping out have far greater chances of going to college and becoming productive citizens in society (Swilley, 2011). This project deliverable has served as a life-long learning experience for me and has sharpened me as a change agent.

Implications, Applications, and Directions for Future Research

The project study was created with the concept of investigating risk factors for weapon-carrying behavior as a means of potentially addressing students that carry weapons to school in a proactive manner. I believe that the project deliverable is important to the field of education and may result in social change. The position paper,

including a policy recommendation coupled with the study results are intended to serve as empirical evidence that a significant correlation exist between risk factors and weapons carried to school. This project study has implications for this local school district. The project study recommended a change in policy from waiting until the weapon is brought to school by a student to administer discipline to intervening before the weapon is brought by identifying risk factors that correlate to weapon carrying-behavior. The project deliverable a position paper, including a policy recommendation will be presented to the school board under observation to address students that carry weapons to school.

Future research concerning this topic should include a mixed methods study. It will strengthen the study by listening to the reasons why students carry weapons to school, where do students get their weapons, do they feel protected or empowered by carrying the weapon, and if they will really use the weapon. The voices of the weapon carriers will also provide insightful information that would be undeniable to policy makers that change is needed to the current policy. Lodico et al. (2010) states a dominant position of using a mixed methods study is it blends both qualitative and quantitative research to produce an inside perspective of context, processes, interactions and precise measurement of attitudes and outcomes. Future research should also include the study of other risk factors such as time of school year/day and student achievement both of which were limitations of my archival data set. Some other risk factors include juvenile delinquency, substance abuse, witnessing violence, being bullied, a victim of violence, unsafe environments, and easy access to weapons.

Conclusion

A position paper, including a policy recommendation is the core of my project deliverable. I discussed the strengths and weaknesses of the current policy. I provided a reflection of my doctoral journey and discussed myself as a scholar, practitioner and project developer. Finally, I discussed the project deliverable as it applies to application, implications and future research. This project deliverable could be that change agent that addresses a gap in practice and applies proactive strategies to help deter potential student weapon carriers from carrying weapons to school by identifying risk factors that are associated with weapon carrying behavior.

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Appendix A: Policy Recommendation, Position Paper

A Policy Recommendation, position paper to the Board of Education, concerning school safety: students and weapon-carrying behavior.

Introduction

School Safety is an important part of every student's overall education. Despite the fact that school systems around the country have put forth sustained efforts to stop weapons from entering the schools, students continue to carry weapons to school (Fritz & Radka, 2010). Too many times, violence in the community has found its way into the school and some students may be carrying weapons to protect themselves (Lunenberg, 2010). This problem affects the entire country and all schools at every level (Brown, R. P.,Osterman, L. L., & Barnes, C. D. 2009; Fritz & Radka, 2010; Yun & Hwang, 2011).

It has been hypothesized by researchers and practitioners that students who are likely to become weapon carriers could easily be identified as opposed to those students who are less likely to carry weapons to school based on individual characteristics, known as risk factors (Finkenbine & Dwyer, 2006; Vaughn, Perron, Abdon, Olate, Groom, & Wu, 2012; Yun & Hwang, 2011). Most of the data collected concerning youth carrying weapons to school have come from self report surveys where students share information about themselves and carrying a weapon to school (Finkenbine & Dwyer, 2006).

Likewise, this particular state department of education in the southern United States conducted a self report survey of its public school students (Department of Education [D.O.E], 2014). According to the state wide survey it was found that 23.2% of all students within the state agreed that students at their schools carry weapons. It was

also found that 22.9% of all students surveyed within the state strongly agreed that students at their schools carry weapons to school. This information suggested that numerous weapons are being brought onto school grounds across this state and likely other similar settings.

The Problem

In this particular school district, students are carrying weapons to school. The issue of weapons on school grounds is a concern to educators, parents, and stakeholders. The exact nature of this issue demands additional attention in order to find the most viable solutions. In this doctoral project study, the problem is that within a large urban school district in the southern region of the United States, over 100 weapons have been found in the schools within the past two school years (2011-2013) despite putting measures in place to deter weapons from entering the schools. The weapons found on school grounds in this school district ranged from razors to hand guns. The problem of weapons in school is not unique to this school district. Incidents of weapons found on school grounds are documented by the schools and reported to the state. In fact, the state department of education where this district is located reported weapons in schools is a state wide issue (DOE, 2014)

The Current Policy

The current school policy involving students and weapons carried to school is a reactive approach to deter students from carrying weapons to school as enforced by the Shelby County Schools Student Code of Conduct Policy #6022. The policy explicitly

states that the following infractions should be associated with safety/threat assessment and expulsion:

1. A credible /substantive threat of harm.
2. Possession of a dangerous weapon (firearm, knife, taser, explosive, etc.);
3. Assault resulting in serious bodily injury to staff /student(s); or
4. off campus felony with a firearm.

The principal/assistant principal or designee shall: 1) consult with appropriate district staff responsible for IDEA (i.e., SPED and 504) to determine whether a student has an identified or suspected need for services under IDEA and hold a manifestation meeting if necessary; 2) immediately refer the student for safety assessment. The department responsible for safety/threat assessment shall provide the names of students referred for safety/threat assessment to the department responsible for attendance and discipline. The office responsible for alternative schools will inform the parents that the placement decision is being taken under advisement pending the outcome of the safety/threat assessment. Safety/threat assessment findings and recommendations will be utilized in making the placement decision and in the implementation of the safety plan of the student. The issue with this policy is all of the assistance is provided after the student carries the weapon to school. By studying the risk factors that may lead to the weapon-carrying behavior of students, the problem of weapons in school may be addressed more effectively and in a proactive manner. This is important because too many times we see the handwriting on the wall from students who are at-risk and these students are not

helped until only reactive measures can be taken and a 180 day expulsion has been assigned.

Research

An examination of peer reviewed articles has identified specific steps to execute in order to write a strong policy recommendation (CARDI, 2012). Although all of the steps were followed and implemented in this policy recommendation, I would like to discuss targeting an audience for the purpose of this particular research. I have chosen the school board because you have the power to approve or disapprove the policy recommendation and you represent the strongest sphere of influence to get the policy recommendation passed into policy (CARDI, 2012; Cohen, 2013; Cornell & Limber, 2015; Herrera et al., 2010; McGinty et al., 2014; Musandu, 2013; O'Connell, 2013; Sprague & Hu, 2015; Van Hout, 2011; Voogt & Knezek, 2013; Wee, 2011; Wagner, Shubair, & Michalos, 2010).

I have conducted research on *School Safety: Students and Weapon Carrying Behavior*. I have conducted this research with the approval of Walden University's Institutional Review Board and Shelby County Schools respectively. Students and weapon-carrying behavior is a major concern in Shelby County Schools. I researched the problem and found recent studies to associate student weapon-carrying behavior with specific risk factors. The risk factors may be behavioral or social variables such as alcohol and drug use, gang involvement, bullying, sexual activity, and prior fights (Blumberg et al., 2009; Stayton et al., 2011; Thurnherr et al., 2009). The risk factors may also be demographic as well such as ethnicity of a minority class, over-age for grade

placement, male gender, and the single parent home (Blumberg et al., 2009; Stayton et al., 2011; Thurnherr et al., 2009).

Synopsis of the Study

I began the study by discussing the title which is *School Safety: Students and Weapon-Carrying Behavior.* I defined the problem by referring to different events when a weapon was found on campus. I then provided evidence about the problem from the local level and evidence from professional literature. I formulated research questions and a guiding question to guide this study, which lead me to conduct a literature review on risk factors and weapon carrying behavior. After completing the literature review, I selected a methodology to conduct the study. The population was data from all students attending a public school within the district during the 2011-2012 and the 2012-2013 school years.

I selected risk factors from both categories: behavioral and demographic. I wanted to know how gender and weapons carried to school would relate to each other and through this study I found that male students were more likely to carry a weapon to school than female students. The study results also showed male students were three times more likely to carry a weapon to school compared to female students.

I wanted to know the relationship between race and weapons carried to school and this study showed race and weapons carried to school to be associated. Asian students were ten times less likely than any other race to carry a weapon to school. Latino students and Multi-racial students were two times more likely than any other race to carry a weapon to school. Blacks and Whites both were three times more likely to carry a weapon to school than other races of students. I wanted to know the relationship between

suspensions and weapons carried to school. The study results showed suspensions and carrying a weapon to school to be associated. Students who received five to 14 suspensions had a one in four chance of not being a weapon carrier. A high the number of suspensions correlates to a chance of that student carrying a weapon to school. I wanted to know the relationship between fights and weapons carried to school. The study results showed fights and carrying a weapon to school were associated. Students who had a pattern of fighting were associated with carrying a weapon to school.

I also wanted to know the relationship between student achievement and weapons carried to school and the relationship between time of school day/year and weapons carried to school. The data that were given did not yield information that would allow the researcher to conduct a statistical test. I was using archival data that had already been collected by the district. Furthermore, it was unknown to me prior to the development of the study that these data would not be available. The whole purpose of the study was to use data that already had been collected as part of the normal business operations of the school and not force the collection of new data.

After testing the six variables, I wanted to know of the six variables which one was most predictive of students carrying a weapon to school. The study results showed all of the variables tested (gender, race, suspensions and fights) to be significant and it could not be determined which one was the most predictive because they were all significant (See Table 1). There is no definitive way for ranking significant predictor variables based on the Logistic regression results. In other words, when all of the variables are significant at the same level there is no established method for determining

which relative amount of influence each independent variable has on the dependent variable (Thompson, 2009). The other variables (time of school day/year and student achievement) were not tested because the data that were given did not yield information that would allow the researcher to conduct a statistical test.

Table 1

Data Analysis Results of Variables in the Equation

Variables	B	SE	Wald	df	Sig.	Exp(B)	95%CI
Suspensions	.335	.031	114.87	1	.000	1.398	(1.32, 1.49)
Race	.247	.057	18.93	1	.000	.781	(.699, .873)
Gender	.988	.145	46.16	1	.000	2.686	(2.02, 3.57)
Fights	1.331	.183	52.74	1	.000	3.785	(2.64, 5.42)
Constant	-1.94	.290	44.73	1	.000	.143	

The Policy Recommendation

The policy recommendation, position paper is based on the findings of this study which allows this district to use discipline data to identify risk factors significantly associated with student carrying weapons to school. The results of the present study suggested that in this particular school district that race, gender, suspensions, and fights were all significant as risk factors of students who carry weapons to school. Black and White students both were three times more likely than other races to positively carry a weapon to school, males were three times more likely than female students to positively carry a weapon to school, students who received five to 14 suspensions had a one in four chance of being a weapon carrier, and a pattern of fighting correlates significantly to a chance of carrying a weapon to school. This information can be used to help potential

student weapon carriers before they bring the weapon to school. This policy recommendation, suggest using risk factors to identify potential student weapon carriers.

Using Risk Factors to Identify Weapon Carriers

In this particular study, risk factors that were identified were race, gender, suspensions, and fighting. These same risk factors can be used to set criterion for referrals made for safety/threat assessment. The school management system has the ability to alert and track specified information within the system. The school management system will track the disciplinary offenses of students just as it normally does throughout the school year; however certain offenses classified under the selected risk factors that the district has chosen to be monitored under the new policy will be manipulated to give an alert symbol when criterion has been met to identify the student as a potential weapon carrier.

Once the potential weapon-carrying students are identified, through the School Management System (SMS) data base, they will be referred to safety/threat assessment for an advisement period as decreed by the current policy (Tools for Schools, 2013). The students will be identified by presenting a combination of behaviors or events known as risk factors. A combination of these risk factors will be used to predict weapon-carrying behavior because no single variable can predict that a student will become a weapon carrier. A series of risk factors displayed will require an immediate response. It is justifiable to assume that these risk factors presented in combination, suggest a significant need to provide an appropriate intervention (Tools for School, 2013).

Recommended Course of Action

This policy recommendation takes the position of proactive strategies to deter weapon-carrying behavior. This policy recommendation suggests, according to the findings of the study, that risk factors can be used to identify students who have the potential to carry a weapon to school. The alternative that is recommended to the current policy is the use of student discipline data to identify risk factors associated with weapon-carrying behavior; and then executing the safety/threat assessment procedures already in place with the district before the student carries a weapon to school. The potential implications of using this procedure will keep more students in school by decreasing the expulsion rate, and providing a student with a resource to which the at-risk student can be assisted with any issues that are in need of an outside agency referral before the student carries a weapon to school. The reasons students carry weapons to school as reported by students who have brought weapons to school have been categorized into fear, anger, and self-defense (Finkenbine & Dwyer, 2006).

This policy recommendation does not require any additional funding to be implemented. The current method in which the district policy is written will continue to be followed with the exception of when the intervention will take place to deter the weapon-carrying behavior. A district dealing with a budget crisis does not need to take on the cost of implementing any new strategies that will impose a cost and this policy recommendation does not require funding. This policy recommendation also works well with what is currently in place. Risk factors will be identified for weapon-carrying behavior in this school district using data that the district has collected on an everyday

basis as part of the normal school operations. The safety/threat assessment team is already a functioning program within the district where the identified students will be initially referred as they would be referred as a reactive strategy and the procedures of the safety/threat assessment team are preserved.

This policy recommendation, as deemed a proactive strategy to deter the weapon-carrying behavior of students, has not been documented as having been implemented in past or present research. Most of the surrounding states to this district deal with the issue of weapons carried to school in a reactive manner as well which results in a full calendar year expulsion from school. The risk factors as to why the student carried the weapon to school or wants to carry a weapon to school are not explored until after the damage is done (Fritz & Radka, 2010). This policy recommendation supports the civil duty of society by demanding change and assisting a reactive strategy by identifying risk factors associated with students carrying weapons to school. This policy recommendation, to emphasize taking action, will be presented to the school board during the bi-annual review of board policies and revisions.

Project Evaluation

To systematically investigate the merit or worth of an object is project evaluation (Lodico et al., 2010). The type of evaluation that the researcher thinks will be most appropriate to evaluate this project is goal-based evaluation. This method of project evaluation was chosen because the researcher is interested in knowing if the policy recommendation meets the goals it was designed to meet. The district may use this evaluation method to evaluate stakeholders at the end of every public forum by asking

them to complete a brief survey concerning the new policy recommendation. A survey is used to provide the district information concerning the policy recommendation and what the initial thoughts of stakeholders were concerning the new policy. The survey questions utilized to evaluate the policy recommendation are as follows:

1. Do you think that a policy recommendation is needed to aid in identifying potential student weapon carriers?
2. Do you think a policy recommendation that identifies potential weapon carriers will decrease the number of student weapon carriers?
3. Do you think a policy recommendation will be benefit the students in this school district?
4. Do you think this policy recommendation violates the rights of students as it pertains to weapon carrying behavior?
5. What else would you recommend with this policy change for it to be effective as possible?

Conclusion

Using student discipline data to identify risk factors associated with students and weapon-carrying behavior would have many benefits and few flaws for the students of this school district found in the southeast region of the United States. Students will receive the guidance and support of safety/threat assessment once they have been identified as a potential weapon carrier. Currently, students receive this help when they have been expelled from school for a full calendar year. If implemented under the new policy students will receive safety/threat assessment support before they are expelled to

deter the weapon-carrying behavior which will result in a decreased expulsion rate and students receiving the support needed to deter weapon-carrying behavior. These benefits can be achieved by allowing this school district to use discipline data to identify risk factors associated with weapon-carrying behavior. If adopted, this policy will be implemented according to the due process provisions pertinent to regular and special education students.

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Appendix B: Research Proposal Preliminary Approval

From: [redacted]

To: SHADRICH L MOORE

Mr. Moore,

As we have discussed, the district does have existing data files on student conduct and discipline including suspensions. In general such data can be made available for external research purposes if the data are stripped of any information that would identify individual students. You would need to complete the formal research approval process before I could provide formal approval and give you a data file. Also, sometimes submitted proposals need to be modified to match data that are available.

Thank you,

[redacted]

Appendix: C: School District Application for Research Approval

Office of Planning and Accountability

1. Applicant's Name_____

2. Organization's Affiliation (e.g., University):_____

3. Project Title:_____

4. Applicant's Phone Numbers:_____

5. Applicant's E-mail Addresses:_____

6. Indicate the schools that will be involved in the study. Either list the schools if there are a few or describe the schools (e.g., all high schools, 10 randomly selected middle schools).

7. When do you anticipate that your study will begin, and when will it end (Note that up to 40 working days may be required for the initial review of your proposal, and revisions may be required after the initial review)?

8. List your research questions.

9. Describe your sample, answering the following questions. Who will be in your sample? How many people will be in your sample? How will your sample be selected?

10. Detail your research methodology. Be sure to include the following information:

11. Describe your proposed data analyses.

12. How will the study benefit the students of Shelby County Schools?

13. What will be required of the district and participating schools?

14. Will your study require the district to provide a data file? If so, specifically describe the variables that will be needed in your data file (e.g., gender, TCAP Achievement Reading/Language Arts scores from spring 2013).

15. Will any compensation be provided to participants, schools, or the district for participation?

16. Will any compensation be provided to participants, schools, or the district for participation?

17. Describe any potential risks for research participants.

18. How will you maintain the confidentiality of any data collected or used?

19. What is your plan for dissemination of results from the study? How do you plan to report results back to the participating schools and the district? Do you plan to report results to audiences other than the schools or the district?

Please submit application with a 25 dollar application fee

Appendix D: Study Approval

Office of Planning and Accountability

Date: January 15, 2015

From: [redacted]

To: Shadrich Moore

RE: Research Proposal

After consideration of your proposal, *School Safety: Students and Weapon Carrying Behavior,* we have approved your request to conduct this study using data from Shelby County Schools. You should use this letter as official notification of approval of your study.

Approval is contingent on you agreeing to use the data file only for the purpose of the study described in the proposal. Also, it is our understanding that you are not proposing to collect additional data but instead will be using data that the district has already collected. At this point it appears that we will be able to satisfy most of your data request. There are some requested variables that may not be available (e.g. time of day of the conduct incident), but most of the main variables (e.g. weapon possessions, gender, race, suspensions) will be available in the file provided. We look forward to working with you to provide the requested data. Please direct any inquiries to me via email at [redacted]

Sincerely,

[redacted]