Investigating the Impact of School Administrator's on the Frequency of Physical Restraint in K-12 Schools.

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The purpose of a physical restraint is to control the behavior of a student. It can involve physically holding a person immobile against his or her will to using chemical or mechanical devices to control a person. This study was designed to contribute to the paucity of existing research literature in regards to a school administrator's impact on the physical restraints utilized in public schools. To date, there are no national standards for the use of these procedures in schools. The current investigation examines frequency of physical restraints, behaviors that lead to the use of restraints, the application of physical restraint and the administrator's attitude and efficacy regarding its use. Significant findings and implications for educational leaders were discussed.

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Physical restraint is defined as an emergency response procedure by one or more staff members that directly restricts "a student's movements by applying force to his or her limbs, head, or body as a means of regaining behavioral control and establishing and maintaining safety for the out of control student and other persons in close proximity" (Fogt, 2005, p. 3). Once thought of as a tool for exclusive use in mental and penal institutions, the use of physical restraints in public schools has become the norm (Ryan & Peterson, 2004). More and more school districts have to contend with students who present severe behavioral difficulties, are often unequipped to do so, and are challenged to prevent or contain these sometimes violent behaviors. Although there is little to no research on the prevalence of physical restraint in public schools, anecdotal information based on court cases and legislation indicates it has become common practice in some school systems and occurs in most, if not all schools (Ryan & Peterson, 2004). The prevalence of restraints is due in part to the Individuals with Disabilities Act establishing the principle of educating all students in the least restrictive environment. This, coupled with high pressure advocacy groups and high profile media attention, has placed school systems and personnel in situations where they feel they must use restraints as a tool to keep schools safe (Ryan & Peterson, 2004).

Proponents of physical restraint say restraint has helped advance the disability education movement by granting access to students who would otherwise need institutionalized or home schooled. Proponents of physical restraint in public schools contend that it is a practice necessary to contain or ensure the safety of all students. Restraint is seen as a means to prevent harm to a person (including self-injurious students), to prevent property damage, or to reduce disruption in a school environment (Stewart, 2010). Proponents contend that there is no universal alternative that works and that when used properly and when warranted, the effective use of physical restraint keeps schools safe and orderly. These conditions are:

- When preventative approaches have been implemented and failed;
- All staff members know and understand the permissible and impermissible situations for use; and
- When they are used to ensure the safety of all involved.

Although there are no set standards for restraint, there is some consensus on what physical restraints are and how they should be applied. Most professionals agree that physical restraint should be used as a last resort, after

de-escalation strategies, training, program changes, behavior studies, and effective staff policies are in place and have failed (Ryan & Peterson, 2004). Staff members should know the permissible and impermissible situations that warrant restraint or seclusion. Proponents agree that restraint may be used when a student's behavior poses a threat to him, her or others, risk of property damage, or behavior causes a significant disruption to the environment. There is also some consensus on when these practices should not be used: (a) for staff convenience; (b) due to lack of staff training or because staff is fearful; (c) used as punishment; and (d) as a response to minor behaviors.

According to the National Disabilities Rights Network (NDRN), in an investigative report, *School is Not Supposed to Hurt,* published in 2009, physical restraint and seclusion are rampant in today's schools. The report lists examples of students in public schools forcibly restrained and dragged to seclusion for a variety of different reasons. All of the incidents portrayed resulted in some sort of emotional or physical trauma to the student and, in some cases, led to the death of the child. These children's cases often prompt a burst of local media or even national media attention, but there is no federal legislation regarding the use of physical restraint or seclusion and state laws vary widely.

Opponents of Physical Restraint

Opponents of restraint believe that the act by the professionals who are entrusted to keep students safe in school does more physical and emotional harm to the very student they are trying to keep safe. They chronicle a "culture of harm" detailing treatment of students from every area of the United States: urban, suburban, rural, wealthy, poor, White, and Black (NDRN, 2009). The use of restraint results in many detrimental effects not only to the student, but also to the staff who employ them: falls, injury, psychological trauma, and even death. A plethora of studies exists from the government and private and non-profit organizations that highlight the risks associated with the use of restraint. For example, the President's New Freedom Commission on Mental Health (2009) states that the use of restraint creates significant risks for children, including serious injury or death, traumatization of people with a history of trauma, loss of dignity, and other psychological harm. As such, the commission recommends that restraint use be reduced and that agencies view high rates of restraint as evidence of treatment failure.

Similarly, the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration (2010) states that the use of restraint on persons with mental health and/ or addictive disorders has resulted in deaths, serious physical injury, and psychological trauma. In 1998, the Harvard Center for Risk Analysis

estimates deaths due to such practices at 150 per annum across the nation. Children have been noted at especially high risk for death and serious injury. Agencies such as the GAO (2010) have reported that restraint can be dangerous to individuals in treatment settings because restraining them can involve physical struggling, pressure on the chest, and other interruptions in breathing. According to the Alliance to Prevent Restraint, Aversive Interventions and Seclusion (2012) and American Psychological Association (2009) maintain that restraint and seclusion can result in emotional, psychological, and/ or physical damage as well as death for both patients and staff, and the potential for abuse if used improperly. The National Education Association (2010) has issued guidelines that discuss restraint of "violent" students, stating that physical restraint should be used with a student only when there is an imminent risk either of harm to a person or property damage.

The majority of these groups believe that restraint is used as a method of first resort in many schools. They contend that because there is no federal legislation limiting its use, schools districts are not forced to change these aversive practices. The techniques used are often utilized or implemented by untrained personnel and this often results in the injury or death of students. They also argue that the same restraint procedures that are used in school are being used in hospitals, institutions, and other treatment facilities. There are federal guidelines in place for those settings (Stewart, 2010).

Current Policy

In the spring of 2009, the GAO, in conjunction with the CCEL convened a hearing regarding the abuses from restraint and seclusion. This prompted United States Secretary of Education, Arne Duncan, to call on all states and school districts to examine their policies on the use of restraint and seclusion. In late 2009, federal legislation was introduced to regulate the use of these procedures in schools to prevent abusive situations (Couvillon et al., 2009). However, there are still no federal guidelines regarding restraint and seclusion in public schools.

In July, 2009, Secretary of Education, Arne Duncan, informed chief states' school officers that the United States Department of Education (ED) would begin conducting research on state laws, regulations, and policies regarding the use of restraint in schools. In December of 2009, states were asked to review and confirm the accuracy of those policies and guidelines. To date, there is a wide range of policies, guidelines and statuettes that each individual state has adopted.

Historical Use of Physical Restraint

The documented historical use of physical restraint started in the late 1700s in mental institutions in France and England. The medical treatment of persons with disabilities began as a result of Enlightenment ideals (Colaizzi, 2005). In the 18th century, Dr. Philippe Pinel used restraint and seclusion in the institutions to ensure the safety of individuals (both patient and staff) while not infringing on the patient's right of autonomy, respect, and freedom (Fisher, 1994). This practice spread throughout Europe and into the United States by the 1800s in the form of asylum psychiatry.

Prior to the 1970s, in the United States, most people with disabilities who presented challenging or violent behavior were placed in institutions. These institutions were typically large state run facilities. From the 1800s through the middle part of the 20th century, these institutions frequently overwhelmed the staff capacity, resulting in "custodial care" of patients and the routine and indiscriminate use of restraints and seclusions (Tovino, 2007).

By the 1840s asylums had become so overcrowded that behavior control became the central concern. The use of mechanical restraints (strait jackets, cells, manacles, specially designed coercion chairs) became a "moral" way to help individuals regain their self-control (Colaizzi, 2005). At this same time, the argument about the legality and morality of using restraint on patients began. Proponents argued it was a therapeutic, ethical, and a moral way of ensuring patient and staff safety. Opponents argued that restraint was an unwarranted and barbaric way of controlling other humans.

The central argument between the two groups was punishment/discipline versus safety of the patient and staff. Proponents argued that using such techniques ensured the safety of all involved while giving staff the resources needed to therapeutically deal with the patient. Opponents believed that restraints were used primarily as a punishment/discipline instrument and led to widespread abuse of patients by asylum staff (Colaizzi, 2005).

The IDEA is the major federal statute for the education of children with disabilities. IDEA both authorizes federal funding for special education and related services and sets out principals under which special education and related services are to be provided. The requirements are detailed and comprehensive. Major principles maintain that states and school districts make available a free appropriate public education (FAPE) to all children with disabilities, generally between the ages of three to 21. States and school districts identify, locate, and evaluate all children with disabilities, regardless of the severity of their disability, to determine which children are eligible for special education and related services. Additionally, each child receiving services has an individual education program (IEP) spelling out specific special education and related services to be provided to meet his or her needs.

The parent must partner in planning and overseeing the child's special education and related services as a member of the IEP team. Lastly, to the maximum extent possible, children with disabilities must be educated with children who are not disabled, and states and school districts provide procedural safeguards to children with disabilities and their parents, including the right to a due process hearing, the right to appeal to federal district court, and the right to receive attorney's fees.

In 1975, the Education for Handicapped Children Act (later known as the Individuals with Disabilities Act or IDEA) required schools to place children with disabilities in the regular or general education classroom to ensure they were educated in the least restrictive environment. Many students with emotional and behavioral problems, regardless of disability label, are now included in the public school environment, many in general education schools and classes. This legal mandate shifted children from institutions to schools. Starting in the late 1970s, school staff and districts began restraining and secluding children in much greater numbers (Ryan, Robbins, Peterson, & Rozalski, 2009).

IDEA states that when the behavior of the child with a disability impedes the child's learning or the learning of others, the IEP team must consider the use of positive behavior interventions and supports (PBIS) to address that behavior. While IDEA emphasizes the use of positive behavior supports, it does not prohibit the use of restraint. Since the 1970s, the ED has noted that state laws may address the use of restraints and the techniques to be implemented.

Beginning in the 1980s and continuing to present, there has been an increasing number of lawsuits involving the use of restraint and seclusion in schools. However, as of 2010, only 23 states have specific sets of laws that regulate the restraint of children in schools. While these laws typically have prohibitions, restrictions, and other procedural safeguards, they explicitly permit the use of restraint on all children.

Advocates of Restraint

There is emerging research that suggests that not only is restraint tolerated, it is encouraged (Stewart, 2010). Masters (2002) suggested that these factors include improved restraint procedures, the growth of national companies expounded restraint training, a lack of success with other interventions, and high staff turnover. These coupled with the thought that restraints are not viewed as universally negative, have led to a feeling that society/schools have done what they can to ensure the safety of students within the confines of legal mandates.

The risk of restraint can be divided into four categories: harm to self or others, the use of improper factors, secondary effects, and the risk of unwanted attention (Stewart, 2010). The greatest risk of harm is death. In addition to the death of a child, there are a number of physical and psychological traumas resulting from the use of restraint. Students who have been restrained have reported feeling dehumanized, assaulted, and traumatized by the event (Amos, 2004). Amos also argues that students with disabilities may be more vulnerable, less able to understand the justification, and may have physical conditions that could be exacerbated by the restraint. Students with asthma, a weakened heart, or on certain medication regimens are more susceptible to injury.

The staffs who restrain students may also be injured in an effort to respond to violent behavior (DosReis & Davarya, 2008). Injuries suffered can include both physical (from the result of a fall or blow from the student) and emotional. Staff encounter emotional stress because of the highly personal threats they receive as part of their job and that they feel distaste, discomfort, and guilt in needing to physically intervene (Bath, 1994).

There have been a number of studies that indicate that the use of restraint in schools is not based on clinical data or behavior research. Fisher (1994) reported that restraint is used because it is part of an organization's past practice, not on the premise of a therapeutic or safety basis. Fisher's literature review found that an array of factors such as cultural bias, staff role perceptions, and leader attitudes were more prevalent indicators of restraint then legitimate clinical factors. Persi and Pasquali (1999) reported on the disproportionate use of restraint according to race, gender, and culture. Young African-American males are restrained at a far greater rate than any other subgroup. Bath (1994) indicated that low staffing ratios, poor staff training, long hours, and other staffing problems can lead to more restraints. Finally, there are some indications that restraint is more commonly used on young children, because staff are either more fearful of older, larger students, or that it is simply more physically possible to do so with younger and smaller students (Ryan, Tetreault, Peterson, & Vander Hagan, 2007).

According to Chan, LeBel, and Webber (2012), there is significant dollar cost associated with restraints in schools and institutions. They contend it is actually more expensive to use restraints than to come up with positive alternatives to them. Restraint practices increase work related costs, reduce the quality and effectiveness of care, and drive up the systematic cost, the organizational cost, and the personal cost of the organization and the individuals involved. Costs such as insurance, training, health care, and worker compensation claims all rise as a direct result of restraint practices. Depending on the organization, restraints often lead to high staff turnover ratios, resulting in a further increase in training costs. A time/motion/task analysis of a typical restraint costs an

organization an average of $350, involves at least 25 different steps by 15 different staff, and claims more than 12 hours of staff time to manage and process (Chan et al., 2012).

Organizations that use restraints' procedures are at risk of receiving unwanted negative attention from the media, advocacy groups, and/ or lawsuits. Parents and advocates have increasingly turned to the media when they feel schools are not receptive of their concerns. This media attention, regardless of the truth or accuracy of the concern, is generally not welcomed by schools, who simply issue a no comment statement to decrease the likelihood of a lawsuit. Advocacy organizations, like the Families Against Restraint and Seclusion, have sections on current deaths of children attributable to restraint. Other advocacy groups routinely become involved, request meetings, review records, and scrutinize an organization's restraint procedures (Stewart, 2010). The number of lawsuits involving restraint practices has grown exponentially over the past 30 years. These lawsuits, whether valid or not, require school systems to pay huge legal fees and the time and resources needed to defend them. Federal law even allows a process for the attorneys of the parent to recover their legal fees from the school district (Stewart, 2010).

Current Investigation

In reviewing the definition of a physical restraint and how it is employed in public schools today, the history of restraints, how IDEA moved restraints into the school arena, the justifications for and against restraint, the lack of the national statutes and school leader qualities related to restraint, three questions persists: how often are physical restraints of students used in school settings; what constitutes the permissible use of restraint as far as administrators are concerned; and what are school administrators' attitudes towards physical restraint and the efficacy of physical restraint in public schools and how are these related to its use. The current investigation will be the first known research to shed some light on the answers to these questions.

METHODS

Participants

The participants consist of a stratified random sample of public school principals and assistant principals in western Pennsylvania and NE Ohio. The sample was selected using educational directories. Once individual contact information was confirmed via the school district's website, and invitation to participate in the electronic survey was distributed. A total of 755 principals and assistant principals were invited to participate; 202 principals (26.75%) accepted the invitation.

Instrumentation

The survey instrument was created by Fogt (2005) in a study exploring leader behaviors and physical restraints of students with behavior disorders in approved private schools. Dr. Fogt's survey sampled elementary principals in residential and day treatment school programs (approved private schools) for students with emotional and behavior disorders. Fogt's *Administrative Activities and Behavior Interventions for Students with Behavior Disorders* includes 47 items regarding seclusion and restraint behaviors. Dr. Fogt's designed survey assesses school leader attitudes toward restraint and examines the extent to which physical restraint is used in a residential or day treatment program serving students with emotional or behavioral disorders in grades one to six. No psychometric data is currently provided (Fogt, 2005).

The current investigation also incorporated parts of the Instructional Leadership Inventory ([ILI], Maehr & Ames, 1988) in addition to items in Fogt (2005). *The Instructional Leadership Inventory* developed by Alig-Meilcarek (2003) is based on a 5-point Likert-type scale (1=strongly agree, 5= strongly disagree). Three factors were identified from the results of the exploratory factor analysis of the original version of the inventory. The internal consistency coefficient of the inventory for the total of the items was .95 and for each factor scale, the range was from r =.81 to r =.88. The ILI measured instructional leadership practices associated with improving student achievement.

The current investigation uses portions of the two surveys to target public school administrators in western Pennsylvania and eastern Ohio. In addition, an open ended question was added to collect any additional thoughts that the respondent has regarding the use of restraint. A full copy of the survey is provided in the Appendix.

Procedures

Prior to the administration of the questionnaire for the participants, the researcher received approval from the University's Institutional Review Board, after having submitted an application along with the survey and consent letter. A pilot of the survey was conducted with 15 participants. Each participant was given a hard copy of the survey. They were asked to complete the survey taking into consideration the following questions: (1) How long did it take you to complete the survey? ; (2) Were there any questions that were confusing or ambiguous?; and (3) What do you think were the overarching issues that the survey was trying to glean? Of the 15 surveys, the average time

for completion was eight minutes. All participants reported no confusing or ambiguous questions and all believed the survey was geared towards ascertaining the principal's role in the use of physical restraint in public schools.

From the stratified sample of 755 principals and assistant principals, an email listing was created. Each potential participant was sent an invitation to participate in the study via email with a code for a Survey Monkey electronic survey. The potential participants were asked to complete the survey by entering the code which took them directly to the Survey Monkey website. The researcher sent a follow-up email one week after the initial mailing to any potential participants who had not responded to the survey. After each additional week, the researcher sent another invitation to potential participants who had not responded.

RESULTS

Demographic Information

School leaders (n=202) who responded were from western Pennsylvania and eastern Ohio. There was not an equal representation from each state. Fifty- two (26%) of the respondents were from Ohio and 150 (74%) were from Pennsylvania. Pennsylvania has significantly more school systems in the western part of the state than Ohio has in the eastern counties.

Survey participants were 66% (n = 134) males and 33% (n = 67) females. The majority of participants indicated that they were 40-49 years of age (42%), followed by 50-59 years of age (27%) and 30-39 years of age (26%). Ninety-five percent of respondents indicated that they identified as "white", while 3% identified as African American. Participants indicated that their official title is identified as principal (76%), director (4%), assistant principal (19%), and district level superintendent (2.5%). In order to become an administrator in the states of Pennsylvania and Ohio, a person must have a minimum of a Bachelor's Degree and at least 30 hours of post graduate work for licensure.

Participants indicated that they 21% had 1-5 years of experience, 27% had 6-10 years of experience, 21% had 11-15 years of experience, and 19% had more than 16 years of experience. While there is a sizable group (21%) of respondents with less the five years of experience, the majority of the school leaders have six or more years of experience (79%).

Regarding school arenas, 41% of the participants worked at elementary school, 19% worked at middle schools, 38% indicated that they worked in secondary education, and 1.5% indicated that they worked at a vocational school. Five percent of the participants indicated that they work across all grades, K-12. Participants indicated that most (45%) work in a 201-500 pupil school, with 27% working in a 501-800 student school, and 23% working in a school with more than 800 students. Nearly half of the participants indicated that they do not utilize restraints in their school setting, and that 82% of all participants use less than one restraint per month. Of those responding to use restraint techniques, 76% indicate that they use basket holds.

Interestingly, 36% of the participants indicated that they had no training on the use of physical restraint. Over half of all respondents (58%) utilize the Crisis Prevention and Intervention training (CPI). CPI is a program offered by Crisis Prevention Institute. It consists of an eight to16- hour course focusing on both crisis de-escalation techniques and restraint procedures. Devereux, Professional Assault Crisis Training (PART), Therapeutic Crisis Intervention (TCI), and Quality Behavior Solutions (QBS) have limited numbers of participants. Of the 18 respondents responding "other" to this question about type of training, seven receive trainings from companies not listed and 11 have training in something but the respondents did not know the name of the company providing the training.

Participants indicated that only one third (n=66, 33%) of all schools spend no time on training for physical restraints. Another third of all respondents (n=63, 32%) report four hours or less of training time on the use of physical restraints. Eighty percent of participants reported that they would utilize a physical restraint in the case of Physical Aggression (aggression towards staff, a peer or self), a significant number of respondents indicated that they would utilize restraints in other situations. Fourteen percent (n=28) of all respondents would utilize a restraint if a student left an assigned area (leaving an assigned area but staying on school grounds, leaving the school building, and leaving school grounds). Twelve respondents (6%) indicate that they would utilize a physical restraint for a threat, and 16 for property destruction. Fifteen respondents (8%) would utilize a physical restraint for other reasons such as for refusal to follow a teacher's direction, for non-compliance, for horseplay, and for verbal aggression.

Preliminary Analysis

A number of preliminary analyses were conducted in order to answer the following research questions:

- What is the frequency of physical restraint in school districts in western Pennsylvania and eastern Ohio?
- What specific behaviors led to the physical restraint?
- What is the relationship between the application of a physical restraint and the school administrator's attitude toward physical restraint and the efficacy of physical restraint in public school?

In order to examine the relationship between the research objectives and the data gathered, certain questions from the survey were tested to find the reliability between the questions and the responses. Items 20 through 28 were examined for potential factor building. From these nine questions, three factors developed. Questions 20 and 21 indicate the school administrator's personal feelings regarding the use of a physical restraint as a means of keeping schools and students safe.

Factor One: Safety

20. The use of Physical Restraint is needed to keep our school safe and orderly.

21. The use of Physical Restraint increases safety in our school.

Questions 23 through 25 indicate the school administrator's perception of the staff's use of a physical restraint in a school setting.

Factor Two: Staff Attitude

23. Staff members are adequately trained in the use of physical restraint.
24. Staff members know how to recognize potentially violent situations.
25. Staff members know how to de-escalate potentially violent situations and employ least restrictive measures prior to resorting to physical restraint.

Questions 26 and 27 indicate the efficacy of the use of a physical restraint. These two questions were used to build the third factor: Efficacy.

26. There is sufficient research supporting the use of Physical Restraint to decrease violent behavior in children.
27. Physical Restraint decreases violent behavior of students in my school.

Question 22 (Physical restraint constitutes punishment) and question 28 (physical restraint tends to be overused in my school) reveal small, non-significant correlations with the items in the other factors. Physical Restraint tends to be overused in my school. Table 1 summarizes the reliability estimates for the constructed factors.

Table 1. *Reliability of Constructed Factors*

Reliability	Cronbach's Alpha	N of items
Questions 20, 21	.912	2
Questions 23, 24, 25	.747	3
Questions 26, 27	.752	2

Respondents were asked to describe when a restraint would occur in the school setting (question 15). While all of the restraint and de-escalation trainings advocate the use of a physical restraint in cases involving some sort of physical aggression, and some advocate in the case of leaving assigned areas or property destruction. None of the training methodologies advocate a restraint on the basis of refusal to complete academic tasks, refusal to follow teacher directions, non-compliance, horseplay, or verbal aggression. Responses were factored using either an advocated or non-advocated approach. An Advocated Score was computed from each participant's responses. This score was based on the sum of advocated reasons for physical restraint, thus the respondent identifying more reasons to advocate physical restraint had a higher advocated score.

Item ten specifically asked respondents to indicate the frequency of physical restraint applied in their school. Participant responses were re-categorized into four levels of responses due to the frequency of responses at each level. The "four or more" level was constructed to include participants indicating either four through 10 or 11-

30 physical restraints a month. The resulting response levels were: None, less than one a month, one to three a month, and four or more a month. These categorical responses are used as the dependent variable for this investigation. The frequency of responses is summarized in Table 2.

Table 2. *Frequency of Responses Regarding Use of Physical Restraint*

Frequency	*f*	%
0	96	48
Less than 1	69	34
1 to 3	27	13
4 or more	9	4

Multinomial Logistical Regression

A multinomial logistic regression analysis was performed in SPSS in order to assess the reported frequency of physical restraint based on four levels of response (none, less than one, one to three, and four or greater) in relation to the four created factors (safety, staff attitude, efficacy, and advocated responses). Gender was included as a demographic variable in the analysis. Algorithmic imputation was used to impute missing responses for three of the factors: safety, staff attitude, and efficacy for approximately 1% of the cases.

Analysis reveals that the proposed multinomial logistic model supports the presence of a relationship between the dependent variable and combination of independent variables based on the statistical significance of the final model chi-square, $\chi^2(15) = 77.89$, $p < .001$

In this analysis, the probability of the model chi-square (77.89) was $p < .001$, less than the level of significance of 0.05. A null hypothesis that there was no difference between the model without independent variables and the model with independent variables was rejected. The existence of a relationship between the independent variables and the dependent variable was supported (Tabachnick & Fidell, 2009). Additionally, goodness of fit statistics demonstrate that this model is tenable, Pearson's χ^2 (480) = 442.637, p= .888. The model results are summarized in Table 3.

Table 3 *Likelihood Ratio Tests of Model*

	Value	D*f*	Asymp. Sig. (2-sided)
Safety	13.131	3	.004
Staff Attitude	6.571	3	.087
Efficacy	4.362	3	.225
Advocated Score	25.129	3	.000
Gender	12.011	3	.007

The first factor to be found significant was the school administrator's feelings about the use of a physical restraint to keep schools and students safe, questions 20 and 21, (p <.05). The majority of respondents either agreed or strongly agreed that restraint is utilized to keep schools safe and orderly (n=111). However, a sizable minority (n=54) disagreed.

The second factor found to be significant was the school administrator's perception of the staff's use of physical restraint in the school setting, questions 23 through 25, (p <.1). The majority of school administrators either strongly agrees or agrees that their staff is adequately trained to utilize a physical restraint, recognize potentially violent situations, and know how to de-escalate potentially violent situations using least restrictive measures.

The third factor, efficacy, did not significantly present, and should be consider for deletion from the model in an effort to see if removal significantly improves the model. Utilization of zero or less than one restraint per month resulted with 77.4% of all respondents; 18.5% of respondents utilized a physical restraint one to three times a month, and 4% of all respondents used a physical restraint more than four times a month. This data, when correlated with other variables, did not present as significant. While the efficacy factor is correlated with the dependent variable, the weakness of this factor in the model may be attributed to the distribution of efficacy responses across the different levels of the dependent variable. The failure might also be attributed to the correlation of the efficacy factor with other independent variables.

The fourth factor found to be significant was the advocated use of physical restraint (p <.001). As mentioned above, this score indicated how many reasons for the use of physical restraint were endorsed by the respondent. The higher the score, the more reasons endorsed. This significant result reflects the strong correlation, r = .383, found between the dependent variable and the Advocacy score.

The final variable analyzed was gender. Gender was recorded as a dummy variable, a person was male (1) , or was not male (0). These results indicate that there is a significant relationship between the respondents' indicated gender and their response regarding the frequency of the utilization of physical restraint in public schools. Significantly, more males than females do not utilize a physical restraint for any reason in their school, 55% to 30%. Conversely, 3% of male school administrators utilize a physical restraint four or more times in a month, compared to 8% of female school leaders.

Overall, Model 1 demonstrated a good fit, Pearson's χ^2 (480) equals 442.64, p =.888, and the model demonstrated good utility based on Nagelkerke's R^2 = .362 (Tabachnick & Fidell, 2009). The log likelihood ratio test indicates all variables are related to the frequency of physical restraint with the exception of Efficacy. A second model was examined, which excluded the non-significant variable of Efficacy to see if an improvement on the model occurred with the deletion of the variable. Model 2 resulted in a minimal reduction in model fit; the remaining variables are all significant contributors to the model.

Discussion

The purpose of this study is to ascertain the frequency of physical restraints used in public schools, the reasons those restraints are occurring, and school administrators' attitudes or beliefs regarding physical restraint. This study has three objectives:

1. What is the frequency of physical restraint in school districts in western Pennsylvania and eastern Ohio?
2. What specific behaviors lead to the physical restraint?
3. What is the relationship between the application of a physical restraint and the school administrator's attitude towards physical restraint and the efficacy of physical restraint in public schools?

The first question explored in this study was the frequency of physical restraint in public school districts in western Pennsylvania and eastern Ohio. A sizable number of school administrators surveyed, 46.7% , reported zero incidents of restraint in 2012-2013 school year; 35.2% of respondents reported less than one physical restraint utilized per month. A small but significant number of school administrators, 14.1%, reported one to three physical restraints and 4% reported four or more restraints utilized per month. For the population sampled, there were significant differences in the frequency of physical restraints employed.

The second question explored were the specific behaviors that lead to the use of a physical restraint in a public school. For purposes of the analysis, specific behaviors were factored together and a wide range of behaviors that lead to a physical restraint occurring were combined. Some of these reasons are universally endorsed by all training protocols as acceptable for utilizing the restraint. There was a wide range of responses that were both not advocated and prohibited by not only the training protocols, but also the mandates from Pennsylvania and Ohio Departments of Education.

This study continues to support the research that physical restraints continue to be utilized in public schools contrary to local and state mandates. While all of the training protocols advocate the use of a physical restraint to deal with potentially violent situations such as physical aggression and some advocate for potentially dangerous situations like property destruction or leaving assigned areas, there are no training protocol exposes the use of a physical restraint for non-compliance, refusing to complete academic work, or horseplay.

The third question explored was the relationship between the application of a physical restraint and the school administrator's attitude towards physical restraint and the efficacy of physical restraint in public schools. This study found a significant relationship between the school administrator's attitudes toward restraint and the frequency of physical restraint.

Discussions and Implications

The use of physical restraint with public school children continues to generate concern and stimulate controversy. Little research exists about the prevalence or use of physical restraint in public schools. The purpose of this study is to ascertain the frequency of physical restraints used in public schools, the reasons those restraints are occurring, and school administrators' attitudes or beliefs regarding physical restraint. This study revealed a strong relationship between the frequency of physical restraint and the school administrator's attitude toward safety,

staff attitude, efficacy and gender. While a large percentage of respondents reported zero or less than one restraint, a sizable number of respondents averaged three or more physical restraints a month.

School principals are accountable for a myriad of activities and responsibilities. They set the tone for learning, provide leadership, motivate staff and students, set curricular standards, prepare budgets, are familiar with all district, state and federal requirements, hire and evaluate staff, and create a positive school environment that maintains an effective discipline plan and creates a safe environment for students and staff. If one of the paramount duties of a school administrator is to create a safe environment for students and staff, why is the use of a physical restraint utilized in such an inconsistent and potentially dangerous manner?

If there is such a strong correlation between school administrator and staff attitudes towards safety and restraint, why is there such a discrepancy in how and why physical restraints are utilized in public schools?

After an extensive search, there is no known research in regard to school administrators' attitudes associated with physical restraint in public schools. It is arguable that school leaders who view physical restraints as necessary to a positive and safe school culture are more likely to adopt policies and procedures that encourage its use. Administrators finding restraints unnecessary are more likely to emphasize preventative programming and other positive behavior supports (Fogt, 2005).

For a variety of different reasons, the use of physical restraint in public schools has increased dramatically (Ryan & Peterson, 2004). Schools, school systems, and school employees are finding themselves dealing with students who present behaviors that impose significant risks on themselves, the staff, and the system. Over the last several years, print and television media have brought to the attention of the public numerous incidents of death and injury as a result of physical restraint in public schools (Freeman & Sugai, 2014). The risks associated with restraints range from injuries to students or staff from kicks, punches, bites, falls, psychological trauma from being involved in involuntary restriction of movement of students to asphyxia, aspiration, and blunt trauma to the head or chest (Couvillon et al., 2010). This study demonstrates a significant correlation between school administrators' attitudes toward restraint and the frequency of physical restraint in public schools.

Why are some school leaders showing very little use of physical restraint, while others are showing significant utilization of physical restraint to control student behavior? School administrators come from a wide variety of different backgrounds, teaching experiences, and leadership programs. Is the school administrator's

background important in establishing their attitudes toward physical restraint? With more education, would school administrators who have higher incidents of physical restraint opt for other measures to control student behavior?

Do administrators use or believe in physical restraints because they do not know of anything else that works, and they see it as the only alternative to decrease potentially dangerous situations?

The documented use of physical restraints started in France in the 18th century. Although from their initial usage, it has been a controversial procedure (Ryan, 2004), restraint continues to be utilized by law enforcement, health care providers, and schools. According to Masters (2002), health care workers in the United States originally viewed physical restraint as a form of therapeutic treatment and adopted it as an accepted practice for dealing with violent patients in order to keep the patient and the staff safe. This view of using physical restraints to prevent people from harming themselves or others continues today.

Proponents of physical restraint in public schools contend that it is a practice necessary to maintain or ensure the safety of all students (Stewart, 2010). Restraint is seen as a means to prevent harm to a person (including self-injurious students), to prevent property damage, or to reduce disruption in a school environment (Stewart, 2010). Proponents contend that there is no universal alternative that works and, that when used properly and when warranted, the effective use of physical restraint keeps schools safe and orderly.

A key component to school leadership is establishing the culture of the school. The leaders' attitudes towards safety and restraint in school in many ways shape the culture regarding student behavior and staff responses to student behavior. In other words, principals who utilize restraint procedures are more likely to work in a building where there are more restraints. Conversely, principals who do not utilize other types of behavior modifications are more likely to work in a school with fewer restraints. Currently, research that supports implementing PBIS is gaining more credibility as more schools are using the strategies with some evidence of social and academic success (Horner & Sugai, 2010).

Although the implementation of a Positive Behavior Support (PBS) or Positive Behavioral Intervention and Supports (PBIS) programs have been effective in reducing the amount of problem behaviors in schools, many school systems do not utilize it and there is the belief among certain professionals that (a) PBS in ineffective in dealing with violent behaviors, and (b) it should not be the function of the school to reward students for acting as they should act anyway.

Recommendations for Practice

The findings of this study emphasize some areas that may help school leaders create safer environments. Some implications for improving practice include:

1. School leaders should re-examine their policies and ensure that physical restraints should be employed as an emergency procedure to ensure the safety of students and staff only;
2. School leaders should collect and analyze data to identify patterns and develop interventions to reduce the need to use a physical restraint;
3. Given the number of students and staff injured in restraint procedures, school leaders should ensure that all staff who may become involved in a restraint injury, participate in a certified training program;
4. School leaders should re-examine their training program and staff development to include prevention, intervention, counter aggression, de-escalation, and principles of applied behavior analysis to identify the function of student behavior and determine replacement behaviors and coping skills of students to reduce the amount of restraints performed in a public school; and
5. School leaders should examine the role of systematically and consistently debriefing the staff and student after the restraint has occurred. Teaching the student replacement behaviors or teaching staff how to avoid escalating the student behavior may reduce the amount of restraints performed in a public school.

Conclusion

The use of physical restraint in public schools continues to generate concern and stimulate controversy, polarizing the educational community. Although physical restraint practices are widely discussed, there is little research conducted in public school settings. This study answered several important questions regarding the use physical restraint in public schools. First, it supports the paucity of existing research that the use of physical restraints is occurring with some frequency in public schools. Second, it demonstrates the specific behaviors that lead to the physical restraint. These behaviors range from aggressive behaviors to non-compliance. This wide range of behaviors that lead to the restraint illustrate the lack of national standards in regards to restraint in public school, the widely divergent state and local standards, and illustrates an even wider gap on the faithful implementation of those standards across school districts. Finally, the study shows a strong correlation between school leaders' attitudes toward physical restraint and the amount of physical restraints that occur. The multinomial logistical

regression analysis demonstrates that the school administrators' perceptions of safety, staff attitude, and efficacy, and advocated conditions to perform a physical restraint, as good predictors of the frequency of physical restraints occurring.

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Appendix 1

Survey Instrument

1. What is your gender?
    a. Male
    b. Female
2. What is your age?
    a. 20-29
    b. 30-39
    c. 40-49
    d. 50-59
    e. 60 +
3. What do you consider yourself to be?
    a. Asian or Pacific Islander
    b. Black or African American
    c. Latino or Hispanic
    d. Native American
    e. White, not of Hispanic origin

4. What is your title?
    a. Principal
    b. Director
    c. Assistant Principal
    d. Other (Please specify) _____
5. How many years (including the current year) of experience do you have as an administrator?
    a. 1 to 5
    b. 6 to 10
    c. 11 to 15
    d. 16 to 20
    e. More than 20 years
6. Which educational certifications do you currently hold? (Please check all that apply)
    a. None
    b. Principal, Administrator, or Supervisor
    c. Special education teacher
    d. Elementary education teacher
    e. Secondary education teacher
    f. School psychologist
    g. Guidance counselor
    h. Emergency certificate
    i. Other (Please specify) _____
7. Which best describes your school type?
    a. Elementary
    b. Middle/Intermediate
    c. Secondary
    d. Vocational
    e. Other (Please specify) _____

8. How many students does your school serve?
    a. 1-200
    b. 201-500
    c. 501-800
    d. 801-1000
    e. 1001-1250
    f. 1251 +

9. How many students receive special education services?
    a. 0 – 20
    b. 21-40
    c. 41-60
    d. 61-80
    e. 81-100
    f. 101+

Directions – Please respond to each item below based on information from the 2012-2013 school year.

For the purpose of responding to the following items, physical restraint is defined as an emergency response procedure by one or more staff that directly restricts a student's movements by applying force or restraint to his or her limbs, head or body as a means of regaining behavior control, and establishing and maintaining safety for the out of control student and other persons in close proximity.

10. Which best describes the average number of physical restraints that occur in your school?
    a. None
    b. Less than 1 a month
    c. 1-3 per month
    d. 4-10 per month
    e. 11-30 per month
    f. More than 30 a month
11. Which best describes the type of physical restraint training that is offered to your staff? (Please check all that apply)
    a. None
    b. CPI
    c. Devereux
    d. Mandt
    e. PART
    f. TCI
    g. QBS Safety Care
    h. Other (Please specify)
12. Which best describes the number of hours of physical restraint training that is required annually for your staff?
    a. None
    b. Less than 1 hour
    c. 1-4 hours
    d. 5-8 hours
    e. 9-12 hours
    f. More than 12 hours

g. Unknown

13. How much of the training is spent on de-escalation techniques as opposed to the physical restraint techniques?
    a. No Training
    b. 20%-39%
    c. 40%-59%
    d. 60%-79%
    e. 80%-100%
    f. Unsure
14. Which best describes the types of physical restraints used by your staff? (please check all that apply)
    a. None
    b. Basket holds
    c. Mechanical restraints
    d. Prone restraints
    e. Other (please specify)
15. Which best describes the conditions under which physical restraints are used at your school? (Please check all that apply)
    a. Leaving assigned area, but remaining in building
    b. Leaving school building
    c. Leaving school grounds
    d. Physical aggression towards other students
    e. Physical aggression towards staff
    f. Physical aggression towards self
    g. Physical threats
    h. Property destruction
    i. Refusal to complete academic tasks
    j. Refusal to follow teacher directions
    k. Non compliance
    l. Horseplay
    m. Verbal aggression
    n. Other (please specify)
16. Which best describes your school's policies and procedures governing the use of physical restraint in your school? (please check one)
    a. No written policy exists
    b. Written policy available upon staff request
    c. Written policy disseminated to all staff
17. Which best describes how physical restraint episodes are recorded by your staff?
    a. No record keeping system in place
    b. Informal notes kept by staff
    c. Standard form used by all staff
    d. Verbal reporting
    e. Other (please specify)
18. Which best describes how often students are injured as a result of physical restraint use?
    a. Never
    b. Seldom
    c. Usually
    d. Always
19. Which best describes how often staff are injured as a result of a physical restraining a student?

a. Never
b. Seldom
c. Usually
d. Always

Directions – Please respond to each item below based on your beliefs/feelings about the use of physical restraints in schools.

20. The use of Physical Restraint is needed to keep our school safe and orderly.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
21. The use of Physical Restraint increases safety in our school.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
22. Physical restraint constitutes punishment.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
23. Staff members are adequately trained in the use of physical restraint.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
24. Staff members know how to recognize potentially violent situations.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
25. Staff members know how to de-escalate potentially violent situations and employ least restrictive measures prior to resorting to physical restraint.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know

26. There is sufficient research supporting the use of Physical Restraint to decrease violent behavior in children.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
27. Physical Restraint decreases violent behavior of students in my school.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
28. Physical Restraint tends to be overused in my school.
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Unsure/Do not know
29. What is your feeling about the use of Physical Restraint in Public Schools? (open ended response)