

LEADERS AND RESTRAINTS:
INVESTIGATING HOW ATTITUDES OF SCHOOL LEADERS PREDICT THE NUMBER
OF PHYSICAL RESTRAINTS

by

Sarah S. Ulmer

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

This study investigates how attitudes of school leaders predict the number of physical restraints that occur in schools that serve students under IDEA. This study focuses on the attitudes of school leaders from the geographical regions of Virginia in public and private schools. The “Educational Leadership and Behavioral Interventions” survey was used to gather research from 33 schools within Virginia. After collecting the data through the survey, the data was analyzed using a predictive correlation research design. The bivariate linear regression was used to analyze the predictor and criterion variables using SPSS. Based on the results of the data analysis, there was not sufficient evidence to reject the null hypothesis. The survey results show a range of school leader beliefs related to the use of physical restraint in the school setting and give greater insight into the thoughts of current school leaders that have the position to be able to influence the school environment. Based on the survey responses, there is a need for continued and further research in the area of physical restraint including additional research and discussion regarding this topic.

Keywords: Attitude, school leader, physical restraint, IDEA

Dedication

I dedicate my dissertation work to my supportive family who has been so patient with me as I have worked on this for so many years. I dedicate this to my friends who have pushed me to keep on going and to persevere in this process even when obstacles got in the way. I dedicate this to my amazing work family that has supported my progress and given me inspiration to continue. I am so thankful that the Lord has given me a passion for education and for blessing me with the family and friends that support me on my path for growth. A special thanks to my chair and methodologist from Liberty who haven't given up on me despite the length of time it has taken me to get to this point.

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List of Abbreviations

Civil Rights Data Collection (CRDC)

Collaborative Problem Solving (CPS)

Crisis Prevention Institute/Nonviolent Crisis (CPT)

Functional Behavioral Assessment (FBA)

Government Accountability Office (GAO)

Individualized Education Plan (IEP)

Individuals with Disabilities Education Act (IDEA)

Office for Civil Rights (OCR)

Positive Behavior Supports (PBS)

Safe and Positive Approaches (SPA)

Therapeutic Options (TO)

United States Department of Education (USDOE)

CHAPTER ONE: INTRODUCTION

Overview

Within this chapter, the background of the impact that school leaders have on the school environment is discussed and the use of physical restraint in the school setting. This chapter delves into the history, social impact, and theoretical context related to these topics. It also looks at the problem, purpose statement, and significance of the study, emphasizing the research question and key word definitions relevant to this study.

Background

School leaders have the responsibility of running the daily aspects of an educational facility and establishing the climate and culture within that establishment. It is the responsibility of the leader to aid in establishing the culture of the school; setting the tone for learning; preparing budgets; providing leadership; motivating staff and students; setting curricular standards; understanding and complying with all state, district, and federal requirements, hiring and evaluating of staff; and creating a positive environment that has effective discipline plans to create a safe environment for both staff and students (Dowell & Larwin, 2016, p. 18). The worldview and opinions of the leader have the potential to impact the school in which they work, the staff, as well as the students either negatively or positively, and “there is power in leadership and power of appearance to change the mood and culture” of a school setting (McKeown, Thomson, Scholes, et al., 2020, p. 453). When issues or concerns arise within the school, school leaders are often the resource used to determine the appropriate decision or path. This study focuses on the importance and influence of school leaders on issues within a school setting. This includes the topic of physical restraint.

Physical restraint in the school setting refers to an involuntary and restrictive practice within the school used to ensure the safety of both students and staff (Andrassy, 2016, p. 141). “Without adequate supports, educators often turn to ineffective punitive and exclusionary practices” (Zaheer, Maggins, McDaniel, et al., 2019, p. 125). It is imperative that leaders, especially school leaders, delve into the frequency of the use of physical restraints in school and educational settings. Statistics show that “students with disabilities are 2.71 times more likely to experience a restraint than students without disabilities” (Barnard-Brak, Xiao, & Liu, 2014, p. 266). In data gathered by the Civil Rights Data Collection from 2017 to 2018, 80% of the students that were reported to have been subjected to physical restraints were students served under IDEA (U.S. Department of Education and Office for Civil Rights, 2020, p. 6). “The prominence of reported restraints is rising in the school with the advent of the inclusion of students with disabilities into the general education curriculum as mandated by federal legislation” (Barnard-Brak, Xiao, & Liu, 2014, p. 463; Zirkel & Lyons, 2006). As this prominence rises, this topic requires further attention to determine the factors that influence schools with higher or lower rates of physical restraint. School leaders may have philosophies and beliefs that affect their use of restraint. “Organizational leaders who do not recognize effective alternatives to restraint and seclusion may not be open to discussing other approaches” (Craig & Sanders, 2018, p. 351). Therefore, the first step towards determining the factors that influence schools is to look at the attitude of the school leader.

Historical Overview

The use of restraints with individuals with disabilities began during the Enlightenment period as a method to help individuals who were struggling to gain control over themselves and their negative behaviors (Colaizzi, 2005, p. 31). In the mid-1800s, debates occurred between

advocators for and against restraints, and the use of restraints continued for violent patients (Ferleger, 2008, pp. 154-165). As years continued, the use of restraint has been most often associated with patients and individuals in a hospital setting or institutional setting. Most of the research associated with the use of physical restraints is centered on these types of environments. “Coercive practices, such as physical restraints are used globally to respond to violent, aggressive and other behaviors displayed by mental health service users” (McKeown, Thomson, Scholes, et al., 2020, p. 449). Currently, physical restraints are also used in educational settings, both in the public and private sectors. Based on information gathered from 224 facilities, 76% reported using seclusion or restraint with the individuals they serve (Brown, Barrett, Ireys, Allen, Pires, Blau, & Azur, 2012, p. 88). Studies have found that a significant number of children diagnosed with Intellectual Disabilities (ID) and challenging behaviors have experienced a high level of restraint (Allen, Lowe, Brophy, & Moore, 2009; Pollastri, Lieberman, Boldt, & Ablon, 2016). Currently, there are no regulations or legislation related to the use of physical restraints on a national scale. Bon and Zirkel found that 37 states which had no federal limits on physical restraint use (2014, pp. 35-45). “This lack of information coupled with the lack of national standards on the proper use of physical restraints provides school districts and school administrators with little guidance on effectively creating safe schools for all students” (Dowell, 2016, p. 6). Although there are no federal laws or legislation related to the use of physical restraints, “On January 17, 2019, United States Secretary of Education Betsy DeVos announced the USDOE’s initiative to address the possible inappropriate use of restraint and seclusion in our nation’s public elementary and secondary schools as it applies to students with disabilities” (U.S. Department of Education and Office for Civil Rights, 2020, p. 3). This initiative is not a law but is “intended to alert schools to their obligations under Federal law to make sure that students

with disabilities received a free appropriate public education” (U.S. Department of Education and Office for Civil Rights, 2020, p. 3). This initiative supports the policies and laws in the state and local governments and school boards within the United States without placing a national law on the use of seclusion and restraint (U.S. Department of Education and Office for Civil Rights, 2020, p. 4).

Society-at-Large and Social Impact

The reporting of physical restraints in the school setting has risen since the “inclusion of students with disabilities into the general education curriculum as mandated by federal legislation” (Barnard-Brak, Xiao, & Liu, 2014, p. 463; Zirkel & Lyons, 2006). Since the Eighteenth Century, there has been a division between those advocating for the use of restraints and those advocating against it with the use of violent patients (Ferleger, 2008). In today’s educational culture, the use of physical restraints often has a negative connotation. This negative connotation is apparent in most articles and research journals that focus on the risks associated with the use of physical restraints and the focus on how to minimize or eliminate their use in the school setting. Based on data and research, students diagnosed with disabilities are 2.71 times more likely to experience physical restraints than their peers who were not diagnosed with disabilities (Barnard-Brak, Xiao, & Liu, 2014, p. 466). There have been court cases related to the misuse or improper implementation of physical restraint in the school setting (Zirkel & Lyons, 2006; Barnard-Brak, Xiao, & Liu, 2014, p. 463). “There is a lack of federal laws or legislation related to the use of physical restraints that is consistent between states that leaves school leaders with little guidance on how to effectively create safe schools for all students” (Dowell, 2016, p. 6). This leaves school leaders, depending on the state, to have to determine their own attitudes and opinions on this intervention and create the school's climate and culture. The use of physical

restraint, especially the possibility of misuse or improper implementation, can have direct repercussions and impact the students, the staff, and the community.

Theoretical Context

The concept of the use of physical restraint has a foundation that can be correlated with the research of B.F. Skinner and his focus on operant behavior and respondent behaviors (Skinner, 1938). The theory of Maslow's Hierarchy of Needs (Maslow, 1954) as well as the theory related to trauma-informed care can also be related to how the evidence promotes a decrease or elimination of the use of physical restraint. Both theories focus on meeting a student proactively by either meeting their basic needs or building a positive rapport to help individuals move towards reaching their own full potential (McLeod, 2007).

Two studies have been conducted related to looking at the attitude and opinions of school leaders and correlating that with the number of physical restraints that occur within the school setting. J. Fogt completed one study and R. Dowell completed the second study. Fogt found that there were weak but significant findings regarding the leader behavior and the frequency of restraint (Fogt, 2006). Dowell found a strong relationship in his research (Dowell, 2016 p. 78). These two research studies focus on the impact of leader attitudes on the educational setting and the use of interventions within a school. The predictive nature of leader attitudes on the frequency of physical restraint use is seen as a gap in the literature and added research on this topic can aid school leaders in promoting a positive school culture and climate (Allen, Lowe, Brophy, & Moore, 2009).

The use of physical restraints has evolved over time; however, there is still a lack of federal legislation and state legislation related to the use of this intervention. Most of the current research focuses on eliminating or decreasing the use of physical restraint within the school

setting; however, this intervention is still used in many places as an approved and therapeutic intervention. It is still a frequent intervention used in 2022, and “the practice of restraint for special education students or isolating them in a closed room happens in school districts across the country” (Lynn, 2022). Research shows that students and other individuals with disabilities are more likely to experience physical restraint. The number of reported restraints has risen as the number of students with disabilities is included more in the general education classrooms. Although there is research to show that school leaders can directly impact the school’s culture, there is a lack of research on the predictive nature of school leaders and their attitudes in relation to the use of physical restraint. There needs to be expanded research on this topic to provide information that can lead schools and school leaders to help them understand their impact on the educational environment and the learning and safety planning of the school.

Problem Statement

When identifying applicable research for this topic, most of the articles were related to hospital or psychiatric type facilities and related to ways to decrease or eliminate the use of physical restraint and seclusion in school settings. Research studies have been conducted to determine alternatives to the use of physical restraint. They have acknowledged that leadership plays a significant role in the implementation of the programming and interventions that are used in school settings, including from just minor changes in practice such as increasing a sense of community and communication through a policy to keep office doors open (McKeown, Thomson, Scholes, et al., 2020, p. 453). These types of studies provide a foundation of knowledge to understand that leaders do have an impact on the educational setting, but most articles and research studies do not make a connection between the use and frequency of physical restraints in schools with the attitude of school leaders. Only two research studies have been

found in relation to the relationship or predictive nature of school leader attitudes or behaviors and their impact on the frequency or number of physical restraints in a school setting. In one of these studies, Fogt (2006) found there to be weak but significant results wherein Dowell (2016) found there to be strong significant results related to these factors. These results both showed significant results; however, they varied in the strength of that significance. Both studies occurred in similar areas. Fogt (2006) conducted research in the states of New Jersey, New York, and Pennsylvania, while Dowell (2016) conducted research in Pennsylvania and Ohio. Fogt (2006) emphasizes the importance of looking at other geographical areas to expand the research.

Research is also needed in this area due to the lack of testing instruments available on this specific topic. Most applicable attitude scales are generalized scales that can be used. Other testing instruments related to physical restraint are geared toward the nursing and hospital setting. Fogt (2006) created a survey entitled “Administrative Activities and Behavior Interventions for Students with Behavior Disorders” to gather research data based on this topic. Dowell (2016) also used this survey to gather research data. Dowell and Larwin (2016) focus on the importance of future research to replicate the study based on the attitudes of administrators on the frequency of physical restraints. The problem is a lack of research related to the use of physical restraints in the school setting and the lack of direct research on the predictive nature of leader attitude and the number of physical restraints that occur within a school setting.

Purpose Statement

This quantitative, predictive correlational design study aims to determine if school leader attitude will predict the number of physical restraints that occur within a school environment. These two predictor variables will be used to determine if there is a predictive nature and relationship between the two variables. School leaders include directors, principals, assistant

principals, administrators, and any other leader that directly impacts the school's climate and culture. This study expands current research to include the geographical area of Virginia, including both public and private school settings that serve students under IDEA.

Significance of Study

This study expands the research to include data and information from both public and private schools through the different geographical areas within the state of Virginia. This research builds on previous studies and uses a similar survey to gather data and information from participants (Fogt, 2006; Dowell, 2016). The state of Virginia currently has set guidelines related to the use of physical restraints with students; however, there is no specific legislation related to this use. This lack of legislation gives school leaders little guidance on managing this intervention (Dowell, 2016). Diament focuses on how “new federal data shows that educators are continuing to rely on restraint...to address behavior issues among students with disabilities” (2020, para. 1). This study delves deeper into a controversial intervention that is still used within the educational setting and looks at the influence of school leaders on the frequency of use of this intervention. A study completed by Sanders (2009) emphasized the importance of manager and leadership positions modeling the vision to move towards accomplishing a goal of elimination of restraints. It is also for leaders to open communication with staff when looking at changes to interventions and practices to influence a culture shift (Craig and Sanders, 2018). This research shows the importance of school leadership positions and their positive or negative impact on the staff and the students. As the frequency of physical restraints continues to occur in school settings especially in relation to students with disabilities there is a need for more research on this topic to determine its foundations and its impacts (Barnard-Brak, Xiao, & Liu, 2014 p. 471). Data recorded and analyzed has shown that 80% of the restraints reported in school settings have

occurred with students who are served under IDEA (U.S. Department of Education and Office for Civil Rights, 2020, p. 6). Understanding the impact of one's beliefs and attitudes can help individuals make their own decisions to create a positive school culture, especially since "building administrators are uniquely positioned to impact individual programs for students" (Pennington, Courtade, & Ault, 2016, p. 295).

Research Question

The research question for this study is:

RQ1: Can the attitude of the school leader concerning physical restraints predict the number of physical restraints that occur in schools that serve students under IDEA?

Definitions

1. *Attitude* - Attitude is a psychological tendency that involves evaluating a particular object with some degree of favor or disfavor (Eagly & Chaiken, 1993).
2. *School leader* – An individual within an educational setting (public or private) who are positioned to impact individual programs for students (Pennington, Courtade, & Ault, 2016). These can include but are not limited to the following: director, headmaster or headmistress, principal, assistant principal, administrator.
3. *Physical restraint* – Physical restraint is ambulatory or manual restraints which refer to a personal restriction that immobilizes or prevents students from moving his or her torso, arms, legs, or head freely (does not include physical escort) (U.S. Department of Education, 2012, p. 10).
4. *IDEA* – The Individuals with Disabilities Education Act (IDEA) is a federal law ensuring services to children with disabilities throughout the nation ("Individuals with Disabilities", n.d.).

CHAPTER TWO: LITERATURE REVIEW

Overview

The literature review related to physical restraint focuses on several factors including the definition and description of the restraint procedure along with its history since its first implementation, predictors related to individuals who are more likely to experience a physical restraint along with associated risks of physical restraints, training, alternatives to the use of physical restraint, and the impact of individuals in leadership positions on its use. Physical restraints are often coupled with the use of seclusion throughout literature; however, the focus of this research is on the use of physical restraint. The focus of the literature on physical restraints involves hospitals, psychiatric facilities, and educational settings with a focus on the hospital and psychiatric facilities in research-focused articles. Each of these main areas of focus is both the positive and negative roles that a physical restraint can have and the impact it can have on both individuals and staff. Moving forward, it is imperative to gain information from this literature based on the overall effect that leaders can have on the use of restraints in the educational setting.

Theoretical Framework

Much of the literature on physical restraints focuses on the negative aspects of this topic. The literature focuses on the risks associated with physical restraints and how to implement procedures, policies, and plans to replace this strategy or minimize its use. However, many of the basic foundations of the use of physical restraints in educational settings can be found in the writing and research of B.F. Skinner. Skinner began an investigation into behavior with a study conducted on rats. He found two types of behavior, including operant behavior and respondent behavior (Skinner, 1938). Baum (2013) states that “behavior is shaped by its consequences” (p. 283). This directly relates to using physical restraints as a method to modify a behavior. The use of physical restraint in the past was seen as a way to modify an individual's behavior; however,

other individuals view the use of physical restraint as a safety intervention rather than an intervention for behavior modification.

Literature that focuses on the minimization or elimination of physical restraints focuses on the importance of building relationships and determining the individuals' needs to help them find alternative and safer choices to negative behaviors (i.e. elopement, aggression, self-injury, property destruction). This literature demonstrates several characteristics that relate to the theory of Maslow's Hierarchy of Needs (Maslow, 1954). Abraham Maslow developed this theory of humanism. Maslow, along with other theorists and psychologists such as Carl Rogers and Arthur Combs, focused on helping individuals to become humanized and self-actualized in order to discover, become, and develop their real self (Tripathi & Moakumla, 2018, p. 499). The humanism theory arose in the 1960s and pulls many of its principles from the progressivism theory, focusing on creating learning environments in which children are free from harm and are able to gain aspects of control in their learning (Farimani & Shahri, 2020, pp. 629-630). The belief that individuals learn best when they are happy and challenged to grow and learn least when they are bored or afraid directly relates to the arguments that opponents of physical restraints express (Tripathi & Moakumla, 2018, p. 499-500).

This theory coincides with the principles of trauma-informed care, focuses on approaching each individual and situation as if that person has been touched by trauma and could be re-traumatized using physical restraint or another type of restrictive intervention. The United States Department of Health and Human Services (2010) stated the following:

A trauma-informed approach to care is based on the recognition that many behaviors and responses expressed by consumers are directly related to traumatic experiences that often cause mental health, substance abuse, and physical health concerns. For many consumers,

treatment facilities perpetuate traumatic experiences through invasive, coercive, or forced treatment that exacerbates feelings of threats, violation, shame, and powerlessness. The use of seclusion and restraint is considered coercive and is often retraumatizing for consumers. These practices are counter to the underlying premise of trauma-informed care that begins with “what has happened to you?” instead of “what is wrong with you?” Trauma-informed care represents an organizational shift from a traditional top-down environment to one that is based on collaboration with consumers (p. 5).

Trauma can come in many forms, including but not limited to “physical abuse, neglect, verbal abuse, divorced or imprisoned parents, and exposure to substance abuse” (O’Grady, 2017, p. 9). Trauma “affects children’s brain development, behavior, and health for the rest of their lives” (O’Grady, 2017, p. 9). Schools that implement trauma-informed care practices focus on the following concepts: “whole-school approach to trauma sensitivity, safety for all children, consideration of student needs and their well-being, the connection of students to the school community, embraced teamwork and shared staff responsibility for all students, adaptation and changing to meet the needs of students as their needs change” (O’Grady, 2017, p. 10). Perers, Backstrom, Johansson, and Rask (2021) stated the following:

Psychiatric care in child and adolescent inpatient units should always strive to be as respectful and empowering as possible, maintaining a safe and trustful environment, while respecting the child’s integrity. This implies keeping interventions that have the power to leave patients feeling shameful, angry, or victimized to a minimum. However, there might always be situations when a restrictive intervention is unavoidable, and the only way to protect a child or adolescent in a psychiatric unit from hurting themselves or others. Considering the possible negative consequences of such interventions, they can

only be ethically defensible if psychiatric organizations work continuously and systematically to prevent them (p. 131).

These also relate to the theories of positive behavior supports and the positive impact that positive reinforcement, positive language, and positive interventions have on individuals and their overall success and replacement of challenging behaviors or behaviors of concern. Maslow's Hierarchy of Needs focuses on first addressing the basic needs of the individuals (including items such as food, water, and safety) to, building relationships with others, to feeling accomplishment all on the way toward reaching self-actualization (reaching an individual's full potential) (McLeod, 2007). This hierarchy and the theories of trauma-informed care and positive behavior supports provide the basis to reduce or eliminate physical restraints.

If leaders also hold these types of views within the educational setting, two previous studies have shown that there is a predictive quality based on leadership beliefs and the frequency of restraints (Fogt, 2006; Dowell, 2016). These studies have been completed in specific geographical regions and have not currently been conducted in the state of Virginia. Information gathered from a research study based on this topic gives leaders a clearer view of the impact their own beliefs and worldview have on the individuals they are responsible for supporting in their education. If individuals in power within the educational setting (at the district and school level) begin to believe in the individual's potential to grow positively, they may also aid in supporting the reduction and elimination of physical restraints.

Related Literature

“Approaches used with people with Intellectual Disabilities (ID) and challenging behaviors stress the need for proactive and reactive support strategies” (Allen, Lowe, Brophy, & Moore, 2009, p. 159). There is a common theme of use within the hospital setting and a more

recent history of use within the educational setting throughout the literature related to physical restraints. “The prominence of reported restraints is rising in the school with the advent of the inclusion of students with disabilities into the general education curriculum as mandated by federal legislation” (Barnard-Brak, Xiao, & Liu, 2014, p. 463; Zirkel & Lyons, 2006). Through literature, three types of restraints are described in the next section; however, the description, frequency, and study of physical restraints is the focus of this study.

Description of Physical Restraint

“Restraint is an involuntary, restrictive measure used by many psychiatric facilities to ensure the safety of both patients and staff” (Andrassy, 2016, p. 141). Restraint is viewed as a procedure to address a surface behavior in an emergency situation separate from physical punishment (Redl & Wineman, 1951). This definition of restraint has been used in psychiatric and hospital facilities; however, the U.S. Department of Education defines restraint with more specificity. The U.S. Department of Education defines physical restraint as “ambulatory and manual restraints which refer to a personal restriction that immobilizes or prevents students from moving his or her torso, arms, legs, or head freely (does not include physical escort)” (2012, p. 10). Two other types of restraint are mentioned including chemical restraint and mechanical restraint which is the “use of any device or equipment to restrict a student’s freedom of movement (not including adaptive devices or mechanical support prescribed and use as designed for approved purposes, vehicle safety restraints, medical immobilization restraints, or orthopedic prescribed devices)” (U.S. Department of Education, 2012, p. 10). Even in other countries, the definition is similar. In Scotland, the Mental Welfare Commission for Scotland (2006), defines this as “planned or unplanned, conscious or unconscious actions of care staff that prevent a

resident or patient from doing what he or she wishes to do and as a result places limits on his or her freedom” (Menon, Barburaj, & Bernard, 2012, p. 63).

History and Origins of Use

Treatment of individuals with disabilities began with the Enlightenment ideals. The mechanical restraints became the accepted and approved way to help individuals who were struggling with negative behaviors gain control over themselves and their negative behaviors (Colaizzi, 2005, p. 31). In the mid-1800s, a division between those that advocated for restraints and those that did not became a forefront of discussion however, most individuals in decision-making roles were opposed to the no-restraint movement and did use this on violent patients (Ferleger, 2008). In the past, and even currently, seclusion and restraint were often perceived as therapeutic to consumers (U.S. Department of Health and Human Services, 2010, p. 2).

Occurrence of restraint

“Restraints have been used on people in institutions, children in schools, nursing home residents, general hospital patients, and other locations, but most often with people who have disabilities” (Ferleger, 2008, p. 154). It is viewed as a common but controversial intervention used in those settings in addition to therapeutic residential settings (Bystrynski, Braun, Corr, Miller & O’Grady, 2021, p. 511). Abamu researched information related to individuals and their experiences with physical restraints as a controversial topic and found that “often educators don’t want to seclude and restrain students but when students become a danger to themselves, other students, or teachers, many feel they don’t have other options” (2019). Some individuals and settings are in favor of the use of physical restraints in situations however there are other settings that are against the use of physical restraint. McKeown, Thomson, Scholes, et al. reports that “coercive practices, such as physical restraints are used globally to respond to violent, aggressive

and other behaviors displayed by mental health service users” (2020, p. 449). Physical restraints occur with individuals who display these challenging behaviors and “without adequate supports, educators often turn to ineffective punitive and exclusionary practices” (Zaheer, Maggins, McDaniel, et al., 2019, p. 125).

Data analyzed from 2017-2018 shows that “educators are continuing to rely on restraint and seclusion to address behavior issues among students with disabilities in the nation’s schools” (Diament, 2020, para. 1). Based on data gathered from the Civil Rights Data Collection (CRDC), it is reported that from the 2017-2018 school year, 101,900 out of 50,922,401 students had a report of a restraint or a seclusion (U.S. Department of Education and Office for Civil Rights, 2020). Out of the 101,990 students subjected to restraint or seclusion, 79,676 or 78% of those students were students with disabilities (U.S. Department of Education and Office for Civil Rights, 2020). When the data is delved further into, 70,833 students were subjected to physical restraint (U.S. Department of Education and Office for Civil Rights, 2020). This prevalence of the use of restraint on individuals with disabilities is more apparent when the percentages of occurrence are viewed. Around 13% of students are served under IDEA; however, they account for 80% of the physical restraints that occurred, showing that that student group is more likely to be involved in a restraint or seclusion (U.S. Department of Education and Office for Civil Rights, 2020, p. 6). This level of use with the special education population builds the foundation for the needs of research related to physical restraint use in schools serving students with IDEA. Based on data gathered from 224 facilities, 76% reported using seclusion or restraint with the individuals that they serve (Brown, Barrett, Ireys, Allen, Pires, Blau, & Azur, 2012, p. 88). Reports by Allen, Lowe, Brophy, and Moore (2009) show that a significant number of children (28-67 %) and adults (8-57%) who are diagnosed with Intellectual Disabilities and challenging

behaviors have a high level of restraint (p. 160). This is supported by research that shows that restraint is used frequently (12-67%) for aggression, self-injury, and property destruction for students with Intellectual Disability and challenging behaviors (Menon, Baburaj, and Bernard, 2012, p. 64). Pollastri, Lieberman, Boldt, & Ablon (2016) found an even higher rate of restraint in a study in which 76% of youth in the residential treatment facilities experienced restraint or seclusion. These results are similar even in other countries. In a Dutch population of individuals diagnosed with Intellectual Disabilities, 60% had been treated with restraint or seclusion (Scheirs, Blok, Tolhoek, Aouat, & Glimmerveen, 2012, p. 117).

The use of physical restraint is viewed as a “result of treatment failure” (U.S. Department of Health and Human Services, 2010, p. 1). Although the common thought is that physical restraint is used only when immediately necessary for safety, they are reported to be “most commonly used to address loud, disruptive, noncompliant behavior and generally originate from a power struggle between consumer and staff” (U.S. Department of Health and Human Services, 2010, p. 2). “Some observers have suggested that the use of seclusion and restraints has come as students with severe emotional disabilities have moved into general education classrooms but... many of the cases collected in the National Disability Rights Network’s January report happened in separate schools for students with special needs” (Samuels, 2009, para.7). There are several different thoughts regarding why there has been an increase in the attention and frequency of physical restraints in school settings. “Nonetheless, the incidents are troubling...and there’s no evidence that restraining or secluding a child leads to better behavior” (Samuels, 2009, para. 20). Samuels focuses on the thoughts related to the frequency of the use of physical restraint and the belief that physical restraint is not a behavior modification tool (2009).

There are also proponents for the use of physical restraint. “Some school officials argue that their students have such severe behavioral needs that ending seclusion and restraint is not realistic. A district in the Charleston, Illinois area operates three public therapeutic day schools for students with disabilities sent employees last year to visit a Pennsylvania school for students with emotional disabilities that ended seclusion and restraint” (Richards & Cohen, 2020, para. 48). After reviewing this school, the leader stated that although the Pennsylvania school was “inspiring but said that their students were too physically aggressive to replicate it” (Richards & Cohen, 2020, para. 46). For some individuals and settings, leaders and staff feel that there is a continued need for the use of physical restraint for safety and for managing challenging behaviors.

Court Cases and Relevant Decisions

Physical restraint is reported to be often used for students to promote safety. “The United States Constitution is silent as to the federal government’s duty to educate its citizens; thus, public education in the United States has traditionally been left to the state and local governments. However, the federal government does play a limited role in education policy through the United States Department of Education, Congress, and the federal judiciary” (Hawley, 2020, p. 1176). There are varying degrees of guidance, principles, or legislation based on the state or local government in states.

In Missouri, “Missouri’s school officials are left with little guidance from federal and state governments when making these complex and often split-second decisions” (Hawley, 2020, p. 1173). In Missouri, there are reportedly at least 1990 reported physical restraints. Data from the reported physical restraints show that these are “employed inequitably and have a disparate impact on students with disabilities and students of color” (Hawley, 2020, p. 1174). Based on

this review, there is a common theme of change when the urgency increases based on injuries, deaths, or media attention related to the use of physical restraint (U.S. Department of Health and Human Services, 2010). These calls to change are often funded by boards of education, local boards, or even different government programs. A three-year grant program was developed and in 2003 resulted in a national call to action in which several domains were emphasized to promote change, including the following: “training and technical assistance, data collection, evidence-based practices and guidelines, leadership and partnership development, and rights protection” (U.S. Department of Health and Human Services, 2010, p. 4). In 2004, grants were awarded to several states, and in 2005 a training curriculum was developed to promote restraint free mental health services, and the National Center for Trauma-Informed Care was created (U.S. Department of Health and Human Services, 2010). In 2007, Virginia was one of the states to be awarded the grant (U.S. Department of Health and Human Services, 2010).

The use of physical restraint is a topic of discussion in many states. In Illinois, there has been a recent focus on physical restraint within school settings. “Last year data revealed widespread misuse and overuse of the practices, finding that schools statewide had shut children with disabilities in seclusion rooms or physically restrained them more than 35,000 times in a 15-month period beginning in the fall of 2017” (Richards & Cohen, 2020, para. 8). Due to the data reported in Illinois, “the Illinois state board of education immediately banned seclusion and facedown or prone restraint, physical restraint, and began monitoring school use of behavioral interventions” (Richards & Cohen, 2020). Some groups favored this ban; however other school groups and districts pushed back against this policy. The schools that did not agree with this ban began to state that they would be unable to provide education to some of the students who were subjected to physical restraint in the past because of their challenging behaviors; They did not

feel that they had the tools to be able to move forward without the use of restraint and seclusion (Richards & Cohen, 2020, para. 60). After this, the state education officials did allow schools to use prone restraints as of July 2021 (Richards & Cohen, 2020, para. 6). Illinois continued to work on changing its policies and procedures around the use of physical restraints in the school setting. In one school in Illinois, Lincoln Academy, which is a public therapeutic day school for students with emotional and behavioral disabilities, “staff members still use physical restraint at Lincoln, but there’s more of a focus on understanding what is causing an outburst or other challenging behavior” (Richards & Cohen, 2020, para. 47). The state of Illinois moved to action once the leadership received the initial report regarding physical restraint. The Illinois state board of education moved forward to announce the implementation of plans using grants that will help districts to explore various alternatives to the use of seclusion and restraint, including funding for workshops, conferences, and coaching) (Richards & Cohen, 2020, para. 54).

In a court case, *Ingraham vs. Wright* (in 1977), the supreme court held a hearing and made a decision regarding the use of corporal punishment by school officials (Hawley, 2020). The Supreme Court “said that corporal punishment of students could not be considered cruel and unusual under the Eighth Amendment of the Constitution (Hawley, 2020, p. 1178). “Federal laws currently protect children from restraint and seclusion in hospitals and other inpatient institutions based on the law known as the Children’s Health Act of 2000 that was passed in response to a number of deaths caused by restraint in both psychiatric and mental health facilities” (Hawley, 2020, p. 1178).

In 2009, issues related to the use of physical restraints were addressed in testimony before the Committee on Education and Labor, House of Representatives. “GAO recently testified before the Committee regarding allegations of death and abuse at residential programs

for troubled teens. Recent reports indicate vulnerable children are being abused in other settings (ex. One report on the use of restraints and seclusions in schools documented cases where students were pinned to the floor of the house, handcuffed, locked in closets, and subjected to other acts of violence...some resulting in death” (Kutz, 2009, p. 2). As a result of this report, the GAO began an investigation into the use of physical restraint and seclusions. Based on their investigation, they did not find any federal laws restricting their use and found that laws varied by state (Kutz, 2009). They did find evidence to support the report of alleged abuse and death related to these methods including “a 7-year-old dying after being held face down for hours by school staff, 5-year-old students being tied to chairs with bungee cords and duct tape by their teacher and suffering broken arms and bloody noses, and a 13 year old who hung himself in a seclusion room after prolonged confinement” (Kutz, 2009). Several cases investigated focused on incidents that resulted in a criminal conviction, a finding of liability, or a large financial settlement in which many of these cases “involved children with disabilities...often in cases where they were not physically aggressive and their parents did not give consent” (Kutz, 2009). “To provide meaningful protection, a state must fall into one of two categories. One, it provides multiple protections against restraint and seclusion for students. Two, it has few protections but strictly limits the technique to emergency threats of physical harm. States that protect only against one practice are not regarded as having meaningful protections” (Butler, 2019, p. 11).

“Many believe that local policies and procedures may have a greater impact than district, state, or federal policies” (Council for Children with Behavioral Disorders, 2020, p. 57). The GAO reported “that nineteen states (Arizona, Florida, Georgia, Idaho, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nebraska, New Jersey, North Dakota, Oklahoma, South Carolina, South Dakota, Vermont, Wisconsin, and Wyoming) have no laws or regulations

related to the use of seclusions or restraints in schools (Kutz, 2009, p. 4). Virginia, which is the focus of this study, was defined as having some restrictions on the use of restraints but not seclusions, required staff to be trained before being able to restrain children, requiring schools to obtain consent prior to using restraints with children, and parents must be notified after a restraint occurs (Kutz, 2009). In 2009, only two states required the reporting of restraints annually which were California and Connecticut (Kutz, p. 4). As a result of the GAO investigation, they identified three things: “absence of federal regulation on physical restraint and seclusion, no reliable national data on use of physical restraint and seclusion, and associated or alleged abuse with untrained or poorly trained staff” (Hawley, 2020, p. 1181). In a session in Congress, a bill was introduced focusing on physical restraint; however, the bill did not have any legislative impact (Hawley, 2020, p. 1181).

Although there are no current regulations or legislation related to the use of physical restraints, there have been meaningful court cases related to their use and misuse. In most court cases (out of a review of 61 related court cases), the parent issue was not that a physical restraint had occurred but that it had been misused or improperly implemented (Zirkel & Lyons, 2006, p. 352). “*Covington v. Knox County School System* (8th Cir., 2000) determined that parents of students with disabilities can sue for damages resulting from the improper use of reported restraints without first exhausting administrative remedies under IDEA as this use is in contract to the intent of IDEA” (Barnard-Brak, Xiao, & Liu, 2014, p. 463). “At the federal level, in *Connecticut Office of Protection and Advocacy v. Hartford Board of Education* (2nd Cir. 2006), it was determined that state agencies do have the authority to monitor and regulate the reported use of restraint in the schools” (Barnard-Brak, Xiao, & Liu, 2014, p. 463). In 2014, Bon & Zirkel found that there were 37 states which had no federal limits on physical restraint use; however, 30

state laws had been expanded by 2012, and 15 states have guidance or policy documents with common themes of de-escalation training, Positive Behavior Supports (PBS), and the use of the Functional Behavior Analysis (FBA) (Bon & Zirkel, 2014; Freeman & Sugai, 2013, pp. 427-438). “This lack of information coupled with the lack of national standards on the proper use of physical restraints provides school districts and school administrators with little guidance on how to effectively create safe schools for all students” (Dowell, 2016, p. 6).

The U.S. Government Accountability Office (GAO) has made strides to create more effective procedures and processes for regulating restrictive practices, including physical restraints. In 2009, the GAO found no current federal regulations related to restraints and seclusions and a wide variety of state regulations (U.S. Department of Education, 2012). The GAO went on to find no reliable or consistent data on these restraints or seclusion usage within schools; however, they were able to find several hundred court cases related to alleged abuse and several deaths related to these abuses (U.S. Department of Education, 2012). This information was presented to the House of Representatives Committee on Education and Labor in 2009; however, the legislation that had been proposed did not pass (U.S. Department of Education, 2012). In response to a lack of legislation, 15 principles were developed by the U.S. Department of Education (2012), including principles such as ensuring every effort is made to prevent the use of restraint or seclusion, never using mechanical restraints without proper approval, only using these procedures if there is imminent danger, applying these principles to children with and without disabilities, involving interventions that treat children with dignity and without abuse, considering the use of positive behavior supports, incorporate regular training, debriefing should be used, monitoring should be conducted during these procedures, policies should be reviewed regularly. The regulations are then monitored by the licensor of each specific educational setting.

Although improvement has been made to attempt to regulate the use of physical restraint, there is still a disconnect between the principles as stated by the GAO and the actual use of this intervention. “The lack of commonly accepted guidelines or accreditation standards in schools might make these more susceptible to misunderstanding, improper implementation, or even abuse of interventions” (Ryan, Peterson, Tetreault, & van der Hagen, 2008, p. 204). The OCR began to collect data related to the use of restraint and seclusion in 2009-2010; however, the reporting and analysis of this data is often several years behind (for example, 2017-2018 year was reported in 2020) (U.S. Department of Education and Office for Civil Rights, 2020). Kreider reports that “data suggests that the use of restraints has remained consistently high since 2009-2010 when school districts were first required to report restraints” (2021).

Van Acker, Kane, Bricko, & Peterson found only 10% of districts (when looking at 90 districts) and their policies indicated that restraints should only occur in immediate danger and found that the districts that did have policies relied heavily on legal firms as their policy advisors (2021). When policies were found, it included information such as “staff training, situations for warranted use, supervision and review, monitoring for safety, restriction of use for coercion, restriction to not harm child, documentation, focus on prevention, reporting incidents, looking at the cause or function behind a behavior, informing guardians of the policy, positive behavioral strategies, debriefing, and only permitted for imminent danger” (Van Acker, Kane, Bricko, & Peterson, 2021, p. 42). Although they found aspects of these throughout their review of the policies, every piece of information was not included in every single policy. Some of these policies include a broader use of physical restraint to include for property destruction (Van Acker, Kane, Bricko, & Peterson, 2021, p. 46).

In 2019, the USDOE created an initiative to address the topic of restraint and seclusion. On January 17, 2019, Secretary of Education Betsy DeVos announced the USDOE's initiative to address the possible inappropriate use of restraint and seclusion in our nation's public elementary and secondary schools as it applies to students with disabilities (U.S. Department of Education and Office for Civil Rights, 2020, p. 3). "While federal law does not specifically prohibit the use of restraint or seclusion, there are circumstances under Section 504 and Title II in which the use of restraint and seclusion may constitute discrimination against students with disabilities" (U.S. Department of Education and Office for Civil Rights, 2020, p. 4). This initiative supports the policies and laws that are in state and local governments within the United States without placing a nationwide law on the use of seclusion and restraint (U.S. Department of Education and Office for Civil Rights, 2020). This initiative is not a law but is "intended to alert schools to their obligations under Federal law to ensure that students with disabilities receive a free appropriate public education" (U.S. Department of Education and Office for Civil Rights, 2020, p. 3). This initiative also included three parts including "nationwide compliance reviews, data quality reviews, and technical assistance" related to restraint and seclusion (U.S. Department of Education and Office for Civil Rights, 2020, p. 3). This initiative focuses on accuracy of reporting of the data from schools. When looking at reports of physical restraint, self-reported data can cause issues or inaccuracies however it is important for quality assurance and review processes to be put into place to ensure that the data reporting is more reliable (Diament, 2020).

Accountability and the consistency of policies and procedures don't just differ within the United States. It also differs in other areas within the United States and in other countries. Barlett and Ellis describe the differences in policies and accountability related to using physical restraints in Canada (2021). "Legislation regarding coercive measures differs between countries.

There is a movement towards less coercion and, as attitudes change, legislation revision follows” (Perers, Backstrom, Johansson, & Rask, 2021, p. 108). Although there are differences between countries, based on the literature review, some countries face the same challenges and discussions as those that occur within the United States.

This research study focuses on the geographical area within the state of Virginia. Virginia has set guidelines; however, it does not have any statutes or regulations governing the use of restraints and seclusion in the educational setting, and guidelines aren’t mandated to be implemented. These guidelines are reviewed by the licensing agency of the Virginia Department of Education (Mills & Cottingham, 2014; Ryan, Robbins, Peterson, & Rozalski, 2009). In 2017, 19 states introduced legislation and seven enacted that legislation regarding restraints and seclusion (Rafa, 2018, p. 2). The Virginia Department of Education regulations state to ensure that the federal principles are followed.

Standards of Care

Psychiatric and hospital facilities have a long history of the use of restraint and have specific regulations to monitor this. Other settings (i.e., hospitals, and juvenile detention centers) have licensing standards to govern their use of restraints; however, there is little guidance or standards in relation to its use in educational settings (Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010, p. 7). Physical restraint use in the education setting has increased with only minor changes to regulations and none to legislation. An issue with a lack of statutes and regulations shows that “we have paid insufficient attention to schools, assuming that schools could regulate and monitor their own” (Mohr, LeBel, O’Halloran, & Preustch, 2010, p. 92).

Many students in schools, especially with disabilities, may also have programs funded by Medicaid or aspects of their education. In an investigation involving Medicaid waivers, 78.4%

permit restraint (Friedman & Crabb, 2018, p. 175). The waivers that permitted restraints, also “projected a lower average spending per participant on behavioral health services than waivers that prohibited restraints” (Friedman & Crabb, 2018, p. 171). An interesting finding from the waivers is that the child or adult-child waivers are more likely to permit the restraints than primarily adult waivers (Friedman & Crabb, 2018, p. 172). Medicaid funding has followed suit with the lack of regulation for the use of restraint and appears to view this use positively in relation to the cost of the actual program per individual. This lower cost may be a driving force for some funding agencies and educational settings.

The U.S. Department of Education presents its standards of care based on the principles. The U.S. Department of Education (2012) states that “physical restraint or seclusion should not be used except in situations where the child’s behavior poses imminent danger of serious physical harm to self, or it should be avoided to the greatest extent possible without endangering the safety of students and staff” (p. 2). Suppose a student’s behavior has a history of being dangerous. In that case, a school should have a plan to teach and support positive behavior changes to prevent the use of restraints and seclusions (U.S. Department of Education, 2012, p. iii). The Civil Rights Data Collection (CRDC) has “required reporting of the total number of students subjected to restraint or seclusion “(U.S. Department of Education, 2012, p. 5). These standards continue the efforts to build effective policies and procedures related to restraint use.

Predictive Factors

Predictive factors are discussed throughout the literature to make individuals aware of aspects or characteristics of a person that may lead to a greater risk of using physical restraint techniques. Restraint continues to “be an understudied but overused procedure among one of our nation’s most vulnerable populations” (Ryan, Peterson, Tetreault, & van der Hagen, 2008, p.

204). From research articles discussing the predictors of restrictive reactive strategies, some of the common indicators which have shown to correlate with the use of physical restraints include the increased severity of intellectual disabilities, restricted communication abilities, age, gender and ethnicity, and the presence of mental health problems and Autism Spectrum Disorders (Allen, Lowe, Brophy, & Moore, 2009, p. 160). Research has shown that students who are diagnosed with disabilities are more likely to experience a restraint (Barnard-Brak, Xiao, & Liu, 2014, p. 466). The CRDC supports that students who have been diagnosed with a disability or disabilities are more likely to experience physical restraint. Based on the most recent CRDC report of data from the 2017-2018 school year, out of the number of students subject to physical restraint, 80% of those students are students served under IDEA (U.S. Department of Education and Office for Civil Rights, 2020, p. 60). The GAO also “found that children are subjected to restraint or seclusion at higher rates than adults and are at a greater risk of injury” and that within that group, children with disabilities are more likely to be subjected to restraint than children that are not diagnosed with disabilities (Kutz, 2009, p. 1). When given a 5-point scale, researchers found that out of 1458 individuals with ID, 36% of these individuals were subject to restraint use (Allen, Lowe, Brophy, & Moore, 2009, p. 165). Scheirs, Blok, Tolhoek, Aouat, and Glimmerveen (2012) found that predictors of restraint use include low adaptive functioning, presence of challenging behaviors, and relatively high intellectual level were significant factors with the most important predictor being adaptive functioning (p. 119). This is supported by a study completed by Bystrynski, Braun, Corr, Miller, and O’Grady. Research showed that students were more likely to be subjected to a restraint if they were younger, male, if they are an ethnicity other than white or Caucasian, and if they were diagnosed with a disability (2021). From a study completed, researchers found that the most severe forms of restraint occurred with

the lowest functioning clients and showed that “the risk of being restrained was greater for people who had less contact with or fewer activities with others or who helped others less” (Scheirs, Blok, Tolhoek, Aouat, & Glimmerveen, 2012, p. 119). The GAO found that “9 out of 10 closed cases involved children with disabilities or a history of troubled behavior” (Kutz, 2009, p. 8). The research consistently shows a significant probability that individuals diagnosed with disabilities will be or have been physically restrained. The Council for Children with Behavioral Disorders (CCBD) reports that disabilities, having Autism, poverty, and minority status can increase the likelihood of restraint (2020).

Some research studies show that individuals diagnosed with ID were more likely to be restrained when they were also males in the younger age range (Allen, Lowe, Brophy, & Moore, 2009). In some studies, males have been shown to experience higher levels of restraint, however, in a study completed by dosReis, McCulloch, Colantuoni, et al. (2010), females classified in the moderate to high use group along with black adolescents and individuals with mood, depression, or anxiety disorders. Therefore, biological sex is not a significant predictor (dosReis, McCulloch, Colantuoni, et al, 2010). In contrast, the CRDC reported that in 2017-2018, 83% of students reported to be subjected to a physical restraint were male (U.S. Department of Education and Office for Civil Rights, 2020).

Based on the literature and information gained from research, younger students are more likely to be subjected to physical restraint, as evidenced by several studies (Allen, Lowe, Brophy, & Moore, 2009; Villani, Parsons, Church, & Beeter, 2012; Ryan, Peterson, Tetreault, & van der Hagen, 2008; Verret, Masse, Lagace-Leblanc, et al, 2019). Researchers have hypothesized that this may be due to their “smaller stature and lack of strength” (Allen, Lowe, Brophy, & Moore, 2009, p. 166). There is evidence that lower school and middle school students are more likely to

be restrained than high school students which may be due to the younger students exhibiting more impulsivity than some of their older counterparts (Verret, Masse, Lagace-Leblanc, et al, 2019). A study completed by Ryan, Peterson, Tetreault, and van der Hagen (2008) found that most restraints occurred on younger students with the median age being eight (80.9% before intervention and 67.9% after intervention).

The individual's age is a significant predictor of the use of restraints, specifically with children and youth, and can be magnified based on past hospitalizations or socioeconomic status. A study completed with 156 youth in two public residential facilities during the 2000-to-2005-year range found that a higher frequency of restraints correlated with a younger age, the longer length of stay in a facility, and prior history of admissions (dosReis, McCulloch, Colantuoni, et al., 2010, p. 161). Studies have also shown that there is an increase in probability for restraint events when given the following factors: students who received free or reduced lunch (38% increase) and middle to elementary age range (4% increase)" (Barnard-Brak, Xiao, & Liu, 2014, p. 466; dosReis, McCulloch, Colantuoni, et al., 2010). Children who have been restrained at a young age are also more likely to be susceptible to experiences involving seclusion and sedation as well (Allen, Lowe, Brophy, & Moore, 2009). Based on research conducted by Allen, Lowe, Brophy, and Moore (2009), they verified that individuals were more likely to experience physical restraint if they had mental health issues, demonstrated destructive behaviors, were less able, of a younger age, and if they had behavioral plans which identified this type of strategy. In Florida, Gagnon, Gurel, and Barber (2017) found that more restraints were used more frequently in pre-kindergarten to fifth grade.

From the data collected by the CRDC for the years of 2017-2018, the data showed that 52% of students with disabilities that were subjected to physical restraint were white or

Caucasian followed by 26% of students who were black or African American (U.S. Department of Education and Office for Civil Rights, 2020). City and suburban settings along with students who are black or African American also were associated with an increase in the number of restraints (Gagnon, Gurel, & Barber, 2017). In a study completed by Timbo, Sriram, Reynolds, DeBoard-Lucas, Specht, Howell, McSweeney, et al, (2016), the researchers found that younger patients, African Americans, and individuals with anxiety disorder were more likely to experience restraints. In contrast, they did not find biological sex to be a significant predictor. This pattern continues in nursing homes, and studies show that African American residents are more likely than white residents to be restrained (Cassie & Cassie, 2013, p. 207). Trader, Stonemeier, Berg, Knowles, Massar, Monzalve, Pinkelman, et al. (2017) also found predictors to include individuals with emotional and behavioral needs in general education settings, the lack of specialized support, and limited training to teachers and school staff. Barnard-Brak, Xiao, and Liu (2014) investigated several predictive factors that demonstrated less probability of the use of restraints. Predictive factors that have been known to decrease probability for restraints include the following: magnet school status (30% decrease), state laws prohibiting corporal punishment (35% decrease), state laws regulating restraint in schools (59% decrease), students in high school (likely to experience 0 events), if white or non-Hispanic (4% decrease) (Barnard-Brak, Xiao, & Liu, 2014, p. 466).

Predictors of restraint include individuals who have challenging behaviors associated with their diagnosis. Prior or antecedent behaviors are noted as reasons for restraints by staff members and on reports. Dowell & Larwin (2016) found that the reasons behind the use of restraint included 14% due to a student leaving an assigned area. Reasons for restraint on actual reports indicated noncompliance and leaving an assigned area as requiring the use of restraints;

however, staff verbal reasons include physical aggression to staff or peers (86-90%) while leaving the assigned area and noncompliance (13-26%) (Ryan, Peterson, Tetreault, & van der Hagen, 2008). This demonstrates a discrepancy in staff reasoning and actual reports for the use of restraints.

It is imperative that leaders and staff members who employ these physical restraints become more aware of the predictive factors as well as they become more aware of their attitudes and beliefs before, during, and after a crisis, as this has the potential to greatly impact the individuals that they are there to support or care for. There should be a focus on the needs of the students, just as in Maslow's Hierarchy of Needs, both met and unmet to help in a crisis (dosReis, McCulloch, Colantuoni, et al., 2010). To better serve the population of individuals who may be subject to these restraints, staff members must understand the population with which they work to prevent the misuse of restrictive practices and effective strategies and interventions. "School-aged children with severe emotional and behavioral problems are sometimes provided educational and mental health treatment in residential treatment facilities" (Miller, Hunt, & Georges, 2006, p. 202). "Physical restraint is sometimes used when children are in imminent danger of hurting themselves or others, but this has been criticized due to serious injury and death" (Miller, Hunt, & Georges, 2006, p. 202).

Smith and Bowman (2009) found that in the United States and the British Isles, children were more likely than adults to experience physical restraint along with males versus females. Predictors also relate to events that occur. In a study completed by Smith and Bowman (2009), restraint "occurred due to noncompliance and to gain instructional control" (p. 71). This happened in a restrain spiral of "noncompliance, verbal de-escalation, refusal, anticipation, invasion, resistance, restraint" (Smith and Bowman, 2009, p. 71). When staff used restraint on

women in a locked unit in England, it was typically used to encourage the women to be passive rather than using other types of therapeutic methods (Fish & Hatton, 2017). In Sweden, individuals in the group homes with Intellectual disabilities were likely to get restrained due to challenging behaviors (i.e. reluctance to get dressed or loud vocals) and 17.8% of a population of 556 individuals were subject to restraint in a week (Lundstrom, Antonsson, Karlsson, & Graneheim, 2011).

Risks of Physical Restraints

“The use of physical restraints is contrary to treatment with dignity and respect because of the numerous risks to clients and employees associated with the use of physical restraints” (Sanders, 2009, p. 216). Dixon and Long support this statement in the study they completed by stating that “patients with psychiatric illnesses deserve to be treated with respect and dignity even when their behaviors are distressful and challenging” (2022, p. 75). Throughout literature related to physical restraints, there is a common theme and topic pertaining to the risks associated with the use of physical restraints. Ryan and Peterson (2004) state that there is little empirical evidence to support the therapeutic nature of restraints. The use of physical restraint is viewed as non-therapeutic in nature, “resulting in potential injuries to patients and staff, the loss of trust between patient and caregiver, and the worsening of symptoms for patients with a history of trauma” (Dixon & Long, 2022, p. 75).

These include external and internal risks supported by research and studies (Kutz, 2009). These risks can occur for both the individual subjected to the restraint as well as the individual or individuals implementing the restraint. In past and current use, coercive practices bring an increased risk of injury to both staff and the individuals that are served (Dixon & Long, 2022). The external risks include injury (i.e., falls, punches, kicks, bites, or falling on furniture) and

even death (through blunt trauma to the chest, asphyxiation, or aspiration) (Allen, Lowe, Brophy, & Moore, 2009; Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010; Mohr, Petti, & Mohr, 2003; Rakhmatullina, Taub, & Jacob, 2013; Dixon & Long, 2022). When physical restraints occur, there is a risk for injury or death in more severe cases. In some cases, these external risks can include severe injury including situations in which students have had their arm broken due to a physical restraint (Hawley, 2020). External risks includes to the individual who the physical restraint is initiated on and the individual who is completing the restraint (Council for Children with Behavioral Disorders, 2020). “Injuries to the child are a frequent outcome following the use of restraints on a child” (Bystrynski, Braun, Corr, Miller & O’Grady, 2021, p. 511). In a study completed in a residential treatment center, physical restraint was associated with physical injury to youth in over 10% of incidents especially if a hold was performed incorrectly, if a prone or supine hold was used, or if a staff used multiple holds on a child during one incident (Bystrynski, Braun, Corr, Miller & O’Grady, 2021).

“Each and every time a student is physically restrained by a school official, both parties are at risk of physical harm and psychological trauma” (Hawley, 2020, p. 1198). Even parents can experience trauma from the use of physical restraint with their child (Lombardo & Abamu, 2019). This can include both psychological injury and trauma (Council for Children with Behavioral Disorders, 2020, p. 56). The internal risks include re-traumatization and other emotional based risks that can be aversive and counter-therapeutic may also occur but may not be as apparent (Allen, Lowe, Brophy, & Moore, 2009; Andrassy, 2016; Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010; Evans, Wood, & Lambert, 2002; Dixon & Long, 2022). “Children associated fear, anger, and re-traumatization with the experience of being restrained, and parties identified lingering emotional and behavioral post restraint effects” (Smith &

Bowman, 2009, p. 57). After physical restraint, “children often described the event as painful and emotional while the adults tended to de-emotionalize the experience for the children during the event” (Smith & Bowman, 2009, p. 64). In a qualitative study conducted by Smith and Bowman (2009), children responded that they felt anger and felt like “they hated me” and “I want to hurt them like they hurt me” after a restraint (p. 65). Children also responded with fear and “saw it as a negative influence in their lives” and that “staff didn’t listen to them” (Smith & Bowman, 2009, p. 65-67).

These internal risks can also create a climate of hostility and fear (Mohr, Petti, & Mohr, 2003). Many individuals who have lived in alternative homes (i.e. foster care, group home setting, hospitals) or who have been in the juvenile justice systems often have experienced high levels of trauma including such events as abuse, neglect, violence, or demeaning situations (Briggs, Greeson, Layne, Fairbank, Knoverek, & Pynoos, 2014; Zelechowski, Sharma, Beserra, Miquel, DeMarco, & Spinazzola, 2013). Most educational staff work hard to establish a relationship with the individuals they work with. When restraints occur, this may hinder the trust that has been developed between the individual and the adult(s) as well as reinforce negative behaviors. “Physical restraint does not teach a child appropriate replacement behavior, therefore in the absence of instruction children are likely to repeat the behaviors that warranted the use of physical restraint...this method may actually decrease the child’s opportunities to learn more appropriate behavior by removing him or her from the learning environment” (Fogt, 2006, p. 23). In some studies, students have been able to express their thoughts on how they feel about restraint and how they feel about alternatives to restraint. In a study completed looking at de-escalation measures with students with emotional and behavioral disorders, student interviews demonstrated that the students preferred de-escalation measures and perceived that they are more

effective to become calm than the use of restraint and felt that the use of restraint did not help them to be able to become calm (Verret, Masse, Lagace-Leblanc, et al., 2019, p. 367).

On the opposite end of the spectrum, a study completed by Fogt, George, Kern, White, and George (2008) found that 21% of schools reported that their students were never injured during a restraint and 90% stated that staff were seldom injured in a restraint. Data that the use of physical restraints does not cause injury to staff and students was not prevalent in the research. This study did not report on the internal or emotional injuries that were mentioned previously. “Although behavioral management is challenging when working with children in residential settings, too often youth who are experiencing emotional crisis or display undesired behaviors are controlled through the use of physical restraint...resulting in severe injuries and death resulting in 142 deaths in the United States over 10 years” (Van Loan, Gage, & Cullen, 2015, p. 114).

The risks are not only to the individual subjected to the restraint and to the individual or individuals who are implementing the restraint. There are also monetary consequences related to the use and especially the misuse of physical restraints. There can be repercussions to the use of physical restraint including expenses related to medical care, liability insurance, cost of intervention training, damage to items, lawsuits, and legal fees (Council for Children with Behavioral Disorders, 2020).

Quality of Reporting

The information that is gained from physical restraint is reported. It is important to take into account underreporting when evaluating the data. This may occur for several reasons including a lack of training regarding the definition of restraint or the data that is required for reporting (Council for Children with Behavioral Disorders, 2020). To get accurate data for

evaluation, there must be clear data gathering procedures, clear reporting procedures, supervision and accountability regarding the data, and consistency related to data collection and reporting (Council for Children with Behavioral Disorders, 2020).

Training

Training of staff is extremely important when using, reducing, or eliminating physical restraints within the educational setting. This concept ties directly into leadership within the schools as well due to the importance of the leadership model to guide the staff within the setting. Gunawardena and Smithard (2019) found that a lower number of restraints could be significantly predicted by a greater number of staff trained. “Transformational leadership is related to a range of positive organizational outcomes and processes...including work environment factors and patient safety outcomes” (Ree, 2020, p. 1989). Leaders and staff who focus on a patient-centered or individual-centered approach focus more on each individual’s comfort and individual needs (Liukka & Turunen, 2018, p. 642). If schools or educational settings move forward with reducing or eliminating physical restraints, it is imperative that staff receive training on managing themselves and others during crisis situations (Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010).

Several different types of trainings offer certification or training in the use of physical restraints. Leadership must determine the appropriateness of the program for their setting (i.e., course content, emphasis, length of training, physical intervention taught) (Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010, p. 6). Programs include but are not limited to the following: Crisis Prevention Institute/Nonviolent Crisis (CPT), the Mandt System, Safe and Positive Approaches, Therapeutic Options (TO), et cetera (Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010). In these types of programs, as determined from data collected by

Couvillon, et al. (2010), “most spend about 25-50% of the program on crisis antecedents and verbal de-escalation with 10-32% focused on various restraint procedures which take approximately 12-16 hours total in order to complete” (p. 8). Fogg, et al. (2008) found that seven schools surveyed offered less than one hour of training; however, the highest percentage of schools (26%) required more than 12 hours of training every year.

In terms of physical restraint interventions, 58% of surveyed programs no longer teach prone or supine floor restraint due to the injuries and deaths that have come from these (Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010). These programs implement proactive measures while a restraint is occurring, including time limits, monitoring for symptoms of distress, involving more than one-person, repeated training, and debriefing (Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010). Many of these proactive measures correlate with the principles created by the U.S. Department of Education.

Training should train staff members to use the FBA and PBS to counter crisis situations with proactive rather than reactive strategies (Walker & Pinkelman, 2018). As training and support are given to staff, they must be given the time to change their mindset, especially if the training is geared towards eliminating or reducing restraints (Tseng, 2012). Just as leaders have an impact on the use of restraints, the leaders also have an influence on the support staff and teachers who are implementing the behavior programs and individual behavioral plans.

Related literature shows that professional development and staff training for preventing problem behaviors and conflict de-escalation can be beneficial in helping reduce the use of restraints by 17.6% over two years (Ryan, Peterson, Tetreault, & van der Hagen, 2007). Training in the healthcare setting has focused on preventing seclusion and restraint with a focus on the development of staff, use of data, inclusion of patients and families, and debriefing

(Hammervold, Norvoll, Aas, & Saqvaaq, 2019, p. 2). Staff training in de-escalation techniques were implemented in Minnesota, and results indicated a decrease in the number of restraints and seclusion (Ryan, Peterson, Tetreault, & van der Hangen, 2008). Singh, Lancioni, Winton, Singh, Adkins, and Singh (2009) completed a study to test how staff members being trained on mindfulness for 12 weeks affected the use of restraints and found that restraint use decreased to almost no use by the end of the study. In the hospital setting, a study completed by Eskandari, Khatijah, Zainal, and Wong showed that a one-day session on minimizing physical restraint in the hospital resulted in a significant increase in the mean knowledge and significant decrease in the mean intention score of nurses to use physical restraint after this intervention (2018). After the intervention, “there was a statistically significant decrease in the incidence rate of physical restraint use in the hospital wards except for the generic-rehabilitation wards after intervention” (Eskandari, Khatijah, Zainal, & Wong, 2018, p. 52).

Dixon and Long (2022) conducted an investigation over a two-month period that focused on physical restraint and seclusion in an adult psychiatric unit. This focused on the implementation and effects of two in-service programs focused on therapeutic training and care and understanding personal reactions to crisis situations (Dixon & Long, 2022). During the post-test after implementing the in-service programs, the researchers found a decrease in the number of restraints and seclusions, demonstrating that training staff may lead to a decrease in the use of these interventions (Dixon & Long, 2022). “The data collected suggest that educational training in de-escalation and communication in leadership led to a reduction in the use of restraint and seclusion” (Dixon & Long, 2022, p. 75).

In addition to training, it is important to ensure that organizations or educational settings “discuss the necessity of fully informing patients and their families of what constitutes physical

interventions and their attendance risks under the established principles and obligations of informed consent” (Mohr & Nunno, 2011, p. 38). Communication is imperative to ensure that FBAs and behavioral plans are created to help individuals become successful. Communication of program missions and visions, needs of the students, and staff and guardian goals can play a massive role in the training program identified for the student population.

Alternatives to Physical Restraint

“Dignity and respect are at the foundation of good care and effective treatment planning and are guiding service principles” (Sanders, 2009, p. 216). “Reactive strategies are often a necessary component of intervention because even with the most successful treatment interventions, the complete elimination of severe challenging behavior is a comparatively rare clinical phenomenon” (Allen, Lowe, Brophy, & Moore, 2009, p. 159). “Without proactive therapeutic support, rates of reactive measures will inevitably rise” (Allen, Lowe, Brophy, & Moore, 2009, p. 166). An alternative to the use of physical restraint can be found in the “belief that in many situations in which a restraint or seclusion was used could be better resolved by a non-coercive, caring intervention from a person focused on peaceful conflict resolution who was willing and able to spend time with the upset or angry individual” (Craig & Sanders, 2018, p. 345). Proactive supports are viable options and alternatives to replace reactive strategies; however, several research articles also emphasize the importance of having staff trained on interventions such as physical restraints. In literature several studies focus on the total elimination of restraints while the majority focus on the reduction of the use of restraints.

In Virginia Beach, a residential and day services program called Support Services of Virginia serves its surrounding localities (Gambony, 2019, para. 4). This organization worked internally to find alternatives to physical restraint and did not use physical restraint to manage

aggression or self-injurious behaviors and used innovative practices to promote safety, including using soft items to block individuals when these behaviors were exhibited (Gambony, 2019). The leader of Support Services of Virginia “developed a philosophy an approach to serving populations with disabilities called positive practices” (Gambony, 2019, para. 7). The leader influenced the employees of the organization and believed that “people use behavior to communicate and sometimes those messages come out as aggression or self-harm” (Gambony, 2019, para. 12).

A research study conducted in Canada focused on evaluating the impact of a schoolwide de-escalation intervention plan on the frequency and duration of de-escalation measures in a school focused on students with emotional and behavioral disorders (Verret, Masse, Lagace-Leblanc, et al, 2019, p. 357). This study focused on four levels of de-escalation for students including self-regulation, regulation encouraged and regulated by adults, withdrawal, and then seclusion or restraint and found that there was a significant impact related to the implementation of intervention plans as a higher frequency of de-escalation measures and a lower frequency of restraint (Verret, Masse, Lagace-Leblanc, et al, 2019, p. 366). Student interviews demonstrated that the students preferred de-escalation measures and perceived that they are more effective to become calm than the use of restraint (Verret, Masse, Lagace-Leblanc, et al., 2019, pp. 366-367).

Sugai and Horner (2006) promote the use of PBS to help with problem behavior.

A study completed by Andrassy (2016) focused on implementing a feelings thermometer with children and adolescents in a residential treatment hospital. After six weeks of implementation, restraint and seclusion (combined rates) went down by 29.1%. To reduce physical restraint use, schools should implement a school-wide approach to Positive Behavior Supports (PBS), align curriculum to the instructional areas, implementing social skill instruction, and cognitive

behavior therapy (Zirkel & Lyons, 2006). Fogt and Piripavel (2002) completed a study in Pennsylvania in which they found that 1,064 restraints were done on 76 students. After implementation of positive behaviors, including earning points that can't be lost, talking time vs. time outs, using behavior plans, and teaching conflict resolution, there were 69% fewer restraint rates, 38% decrease in assaults on teachers, and 55% less worker's compensation claims and as the years progressed, the decrease went even lower in the period of 1997-2000 (Fogt & Piripavel, 2002, p. 230). In a residential treatment facility, Miller, Hunt, and Georges found that using organizational and milieu interventions (with a focus on leadership) has the potential to decrease restraints by 20-42% (2006). Crone, Hawken, and Horner (2015) focused on using PBS to help students learn to control themselves and their behavior to reduce the use of restrictive practices.

Therapeutic Crisis Intervention is another intervention used in school settings. This was developed from a grant and designed predominately for residential childcare organizations in the United States and United Kingdom, focusing on five domains (Rodgers & Hassan, 2021). The five domains include leadership and administration support, social work and clinical services participation, data driven decisions, training, supervision, and post-crisis response (Rodgers & Hassan, 2021, p. 6). Rodgers and Hassan focused on Australian children and the ' trauma and recognized the importance of leadership in implementing this intervention (Rodgers & Hassan, 2021).

George, George, Kern, and Fogt focused on an alternative approach focused on school-wide positive behavior intervention and support (2013). This study focused on alternate education for students with Emotional and Behavioral Disorders that included positive teacher talk, positive parent relationships, and data-based decision making (George, George, Kern, & Fogt, 2013). This intervention included the importance of the leadership team to ensure

accountability, follow-through, and communication in ensuring effective implementation of this intervention (George, George, Kern, & Fogt, 2013).

In a study completed by Craig and Sanders (2018), the researchers completed an evaluation related to a program model for reducing the use of physical restraint in the United States' mid-Atlantic region. The program model has a foundation of a trauma-informed approach, comfort versus control, response blocking, communication, training, support, and debriefing (Craig & Sanders, 2018, p. 345). “This philosophy taught response blocking, promoted an understanding of behavioral intent and client needs, and encouraged the development of creative solutions that were alternatives to restraint and seclusion” (Craig & Sanders, 2018, p. 345). Looking at the analysis of the program model from the years of 2003-2016 showed a 99% decrease in restraint frequency, 97% decrease in staff injury from restraint, 64% decrease in client induced staff injury, and an increase in goal mastery by 133% (Craig & Sanders, 2018, p. 350). Based on interviews from a study completed by Craig and Sanders, “the behavior modification and management training in place prior to the initiative focused on the use of restraint and seclusion, and these tactics reportedly happened frequently as a means of control” (2018, p. 351). Interviews have shown that “restraint, including prone restraint, and seclusion were used quickly for challenging behavior, resulting in worker’s compensation concerns, injury, and serious incidents” (Craig & Sanders, 2018, p. 351).

A study conducted involving a school and a university in which data was collected over a 12-year time frame to determine the effects of the implementation of programming that focused on the following foundation: “relationship based, trauma informed, developmentally focused, family involved, competence centered, and ecologically oriented” (Nunno, Smith, Martin, & Butcher, 2015, p. 114). Based on the data, the data showed a 48% decrease in the number of restraints

between the first set of six years and the second set of six years (Nunno, Smith, Martin, & Butcher, 2015, p. 122). In a study completed by Pollastri, Lieberman, Boldt, & Ablon (2016) in Oregon, the researchers used a collaborative problem-solving approach (CPS) focusing on the thought that “kids do well if they can” showing a decrease in the number of restraints and seclusions that were conducted (p. 188). Russell, Maher, Dorrell, Pitcher, & Henderson (2009) investigated the use of Devereux’s Safe and Positive Approaches (SPA) and found that “total utilization rates, youth injury rates, and staff injury rates were significantly lower for users of SPA versus non-users” (p. 219). SPA “equips staff with knowledge and ability to safely and effectively prevent, de-escalate, and manage crisis situations” (Russell, Maher, Dorrell, Pitcher, & Henderson, 2009, p. 210).

An alternative to the use of restraints used by an organization in Winchester, Virginia, combined training, support from management, extraordinary blocking, protective equipment, modeling by managers, observations, and debriefings to effectively reduce restraints by 99.4% and client induced employee injury by 37.7% (baseline data indicated a total of 260 restraints in a 1-month period in 2003) (Sanders, 2009, p. 216). This study focused on eliminating the use of these restraints instead of just reducing these occurrences. This study demonstrated the importance of manager and leadership positions modeling the vision and mission towards the elimination of restraints.

Although there are many different interventions and alternatives that can be used, even proponents of restraints recognized that “even when the best preventative practices are implemented with fidelity, behavior-related crises and emergency situations still arise” (Simonsen, Sugai, Freeman, & Hampton, 2014, p. 307). Schools must “have crises procedures in place to respond to behavioral emergencies with a key priority being to implement positive and

proactive strategies for all students and differentiating support based on each student's response to those strategies" (Simonsen, Sugai, Freeman, & Hampton, 2014, p. 307). As an alternative and to be prepared for crisis situations, "it is critical that schools conduct an FBA to properly identify the underlying purpose or function of a student's maladaptive behavior" (Smith, Katsiyannis, & Ryan, 2011, p. 191). Proactively preparing for crisis procedures allows staff members to feel prepared and allows them to be trained to effectively react to a variety of incidents with appropriate interventions (including or not including physical restraints).

"Perhaps the most perplexing aspect of schools implementing restraint procedures has been the continued use of restraint with specific students even after the procedure has demonstrated to be ineffective in reducing aggressive or dangerous behaviors" (Smith, Katsiyannis, & Ryan, 2011, p. 190). The effectiveness and the outcomes of use of restraint has not been a highly researched concept in literature to measure outcomes related to changes to maladaptive behaviors. Schools must implement alternatives and prepare their staff members for situations that could involve the use of hands-on interventions. Schools must also implement a process to identify and plan for the most appropriate interventions for each individual. Each individual may have a different plan as they have experienced a different background, different experiences, and different triggers and calm down techniques.

"Therapeutic intervention utilized in multidisciplinary practice to manage challenging behaviors for students with Intellectual Disabilities include proactive interventions such as verbal de-escalation and distraction techniques, pharmacotherapy, behavioral modification programs based on reinforcement strategies as well as cognitive behavioral intervention" (Menon, Baburaj, & Bernard, 2012, p. 63). Miller, Hunt, and Georges looked at the effectiveness of a two-phases physical restraint reduction intervention in a multisite residential treatment center and results

provided support for the effectiveness of organizational level and milieu interventions with reductions by 59% (2006, p, 202). This intervention involves “gaining understanding of the clients, conducting staff training to promote coping with aggressive clients, topics of alternatives to restraint and methods to avoid being provoked by clients” (Miller, Hunt, & Georges, 2006, p. 202). Other alternatives noted include verbal de-escalation, individualized behavioral consultation, positive behavioral supports, and functional assessment (Miller, Hunt, & George, 2006).

When physical restraint is used especially in reference to inpatient services, “it is used if de-escalation techniques have failed during episodes of challenging behavior” (Smethurst, 2016, p. 26). Smethurst “concludes that restraint practices cannot be removed altogether, but safer practice must be ensured” (2016, p. 26). These practices include “treating others with dignity and respect, mentions individualized care plans, implementing out of sight of peers, implementing staff training, user de-briefing, least restrictive practice, and justice sought including users being treat equally” (Smethurst, 2016, p. 26). “Restraint should only happen when every other avenue has been tried so that the situation can be resolved without the use of physical force” (Smethurst, 2016, p. 26). Prevention and trauma informed principles are also used in the United Kingdom under a REsTrain YOURSELF program, which showed a reduction in restraint of up to 60% (Duxbury, Baker, Downe, Jones, Greenwood, & Thygesen, 2019). This program resulted in staff becoming more positive and attitudes shift to restraint awareness and reduction (Duxbury, Thomson, Scholes, Jones, Baker, & Downe, 2019). Difficulties related to alternative forms of practice occur when staffing is low (McKeown, Thomson, Scholes, et al., 2019).

In a study conducted in England, McKeown, Thomson, Scholes, et al., restraint was described as being necessary for clients who were often seen as manipulative or attention-

seeking. Staff within the study viewed their behaviors as “disruptive to the smooth running of the ward, and the restraint was believed to be the only reasonable option for control and restoration of order” (McKeown, Thomson, Scholes, et al., 2020, p. 453). In an intervention to battle against the culture in the mental health care setting in England, the researchers implemented training including education on the diagnosis of the clients and involved the staff and individuals serve in communication, discussion, and looking at how to recognize and respond effectively to trauma while also focusing on dissipating with the us vs. them mentality that seemed to be at the forefront in this setting between staff and those they served (McKeown, Thomson, Scholes, et al., 2020). This training began to show change in the organization and small changes in leadership made powerful impacts (i.e. office keeping their doors open).

Classroom Alternatives and Strategies to Restraint

“Educators face a substantial challenge in addressing the needs of students with or at-risk for emotional and behavioral disorders in school, which, if left unaddressed, lead to myriad academic, social, and health problems” (Zaheer, Maggins, McDaniel, et al., 2019, p. 125). Students with emotional and behavioral challenges often struggle in the school environment. In addition to alternatives to restraint, educators and leaders can use evidence-based practices that impact the students, focusing on the classroom, physical environment, active supervision, and establishing routines. Leadership can plan a large role in the effectiveness of evidence-based practices. “Equally important to identifying evidence-based practices is creating supportive school contexts for successful and sustained implementation of these practices” (Zaheer, Maggins, McDaniel, et al., 2019, p. 125).

Supplemental intervention and programs can be used with students to proactively decrease the need for the use of physical restraint. In a school in Illinois, the leaders implemented

a program focused on recognizing, understanding, labeling, expressing, and regulating emotions to aid students in de-escalation (Richards & Cohen, 2020, para. 47). In Illinois, in some schools, employees and staff are focusing on developing positive relationships with the students to “better help them work through problems, including understanding challenging situations at home that could affect their behavior and ability to learn at school” (Richards & Cohen, 2020, para. 53).

Impact of Leadership on Physical Restraint Use

“It is imperative to recognize that individuals in a position to decide whether or not to utilize a restraint must often do so in response to a crisis or emergency...there is not enough time to weigh other options, consult with experts, check Individualized Education Plans (IEPs) or do research” (Dowell & Larwin, 2016, p. 38). As a school or educational leader, it is the responsibility of the leader to aid in establishing the school’s culture and set the tone for learning for learning (Dowell & Larwin, 2016). Throughout the literature, two articles were found that directly relate to the variables related to the impact of school administrators on the frequency of restraint. Both pieces of literature were originally created as dissertation documents and then published in journals.

The climate in the educational setting plays a large role in the success of the teachers and students (Pepper, Hamilton, 2002, p. 155). “Many times, teachers and the administration fail to recognize that an administrator’s leadership style greatly affects the climate and can create a learning environment that is negative and counterproductive” (Pepper, Hamilton, 2002, p. 155). “Teachers who characterized their principals as supportive found work more rewarding; enjoyed a productive, motivating work environment; demonstrated lower attrition rates and experienced less job-related stress and burnout” (Pepper, Hamilton, 2002, p. 156). When making changes or implementing new strategies or interventions, there is a need for a culture shift for the leadership

and staff in the organization or school setting. In a program model evaluated by Craig and Sanders, “the culture shift asked employees to reassure clients, ask questions instead of making assumptions, be flexible, let go of the upper hand, and treat others with kindness and respect” (2018, p. 345). A change in culture can only occur when there is also a change in the philosophy of each individual’s treatment. “Organizational leaders who do not recognize effective alternatives to restraint and seclusion may not be open to discussing other approaches” (Craig & Sanders, 2018, p. 351).

Leadership can directly affect the mood and culture of an organization. “There is power in leadership and the power of appearance to change the mood and culture” (McKeown, Thomson, Scholes, et al., 2020, p. 453). A study completed in England by McKeown, Thomson, Scholes, et al., studies a mental health services environment that required a change in leadership practices to change the atmosphere of the environment. This change can be a big movement or a slight change that makes a significant impact. “A change in atmosphere was noticed when individuals in offices began to keep their doors open; This is a power symbol of invitation” (McKeown, Thomson, Scholes, et al., 2020, p. 453). It is important for leadership to be committed and “leadership commitment begins with both school leadership and regional support to provide guidance” (Rodgers & Hassan, 2021, p. 6). Leadership within school settings can directly or indirectly affect the school environment and the implementation of new policies, procedures, and programs in the school setting. George, George, Kern, and Fogt emphasized the importance of the leadership team directly impacting the implementation of an intervention through meeting weekly, reviewing and analyzing data, and clear communication of behavioral expectations (2013). Change requires “frequent and ongoing supportive staff supervision, mentoring, and coaching” (Rodgers & Hassan, 2021, p. 6).

Leadership can influence change. In 2003, leaders in a school in Virginia were told by their leader to find an alternative to the use of physical restraints in the school and residential settings (Richards & Cohen, 2020, para. 17). This push caused the staff to come together to find an alternative intervention to the use of physical restraint. The importance of the influence of leadership is in both the school settings and in the healthcare professional field. “Effective leadership of healthcare professionals is critical for strengthening quality and integration of care” (Sfantou et al, 2017, p. 1). When looking at data within the healthcare field, there are “significant positive associations between effective styles of leadership and high levels of patient satisfaction and reduction of adverse effects have been reported” (Sfantou, 2017, p. 2). There are many different styles of leadership within workplaces and between individuals. “Authentic, hands-on leadership style, behaviors, and organizational practices of distinctive leadership were associated with significant differences in patient level measure of quality and safety, such as mortality patterns, patient safety, equity, and effectiveness of care” (Sfantou, 2017, p. 13). The United States Department of Health and Human Services notes that “with leadership, policy, and programmatic change, the use of seclusion and restraint can be prevented and in some facilities has been eliminated” (2010, p. 1).

In 2005, Miller, George, and Fogt completed a study that focused on an alternative day school for individuals with emotional and behavioral disorders. In a review of the results, “systematic change led to significant reduction and eventual elimination of the use and need for physical restraints” (Miller, George, & Fogt, 2005, p. 553). It is essential to not only see change during a study but to see consistent change that is able to be sustained to produce long-term effects and outcomes (Miller, George, & Fogt, 2005). Over a four-year period, the data showed a decrease in the use of physical restraint from 1064 in 1997-1998 to 0 in 1999-2000 as well as a

correlation between an increase in appropriate, pro-social behaviors and an increase in positive student transitions back to other schools (Miller, George, & Fogt, 2005). This study saw the impact of leadership on the change. The implementation of a new director also came with an organizational restructure that focused on developing new processes and collaboration between stakeholders (Miller, George, & Fogt, 2005). Before this, “many staff members subscribed to certain beliefs that affected their observations and conclusions about characteristics of children and youth with emotional and behavioral disorders and the possibilities of the likelihood of student behavioral change” (Miller, George, & Fogt, 2005, p. 556). The new director brought about and re-energized the importance of change with the development of a vision and goal with direction and guidance for future practice, which helped to develop a “foundation of systems change and sustainability” directly affected by the quality of leadership (Miller, George, & Fogt, 2005, p. 560). In addition to the influence of seeing change, leadership helped staff members build confidence in the changing views and perspectives and helped other staff get on board with the process of change (Miller, George, & Fogt, 2005). “When school administrators and teachers see the effectiveness of such an approach in one setting, and how this effectiveness often leads not only to student behavioral improvements but also to less job stress and greater job satisfaction among school staff, they are more likely to embrace its use on a more comprehensive, systemic level. Further, initially implementing change on a small scale can be useful for identifying and ameliorating problems before they can impede broader applications of systems change efforts. Systemic change is most likely to occur when pertinent stakeholders (e.g., school psychologists, teachers, school administrators) are in substantial agreement regarding the importance of a problem and the need for solutions to solve it.” (Miller, George, & Fogt, 2020, p. 563).

Fogt originally published a dissertation in 2006 focusing on leader behaviors and physical restraints. Fogt used a self-created survey entitled “Administrative Activities and Behavior Interventions for Students with Behavior Disorders” to sample elementary principals in residential and day treatment school programs for youth with behavioral and emotional disorders (2006). Fogt conducted the study in schools in New Jersey, New York, and Pennsylvania and, based on original results found that 1 out of 3 of the schools were reporting physical restraints occurring 1-3 times per week (Fogt, 2006). Based on the results, weak but significant findings were found regarding the leader behaviors and the frequency of restraint (Fogt, 2006). Some of the common themes based on the results of the findings that are significant to this current study are that “most said they needed physical restraint to keep their school safe; however, two-thirds don’t know or disagree that there is sufficient research supporting the use of physical restraints along with 90% who disagree that physical restraint is overused in their schools” (Fogt, 2006).

Dowell originally published his dissertation in 2014; however, his study wasn’t published as an article until 2016. He states that the study is the “first known research to shed some light on the answer of investigating the impact of leaders on the frequency of restraint” (Dowell, 2016). This study focuses on individuals and administrators from Pennsylvania and Ohio. Dowell implemented the use of an online survey and found that 60-80% of all respondents utilize physical restraint and results showed a “strong relationship between the frequency of physical restraints and the school administrator’s attitude toward safety, staff attitude, efficacy, and gender” (2016, p. 78).

Leaders can provide staff with the evidence-based and research-based information that they need to be supported in working with individuals who may demonstrate a predictive factor or factors of the use of restraint (Tseng, 2012). “Educators who lead should involve total staff

commitment, clearly defined and communicated rules and expectations, consequences and clearly state procedures for rule-break behaviors, a positive curriculum teaching self-control, and social skills, and individual behavior plans” (Fogt & Piripavel, 2002, p. 231). “Successful schools create and sustain safe learning environments” (Fogt & Piripavel, 2002, p. 231).

Leaders must work with their staff and other leaders within the school to create and implement a shared vision. For schools that struggle with the use of physical restraints, it is imperative that this shared vision include “the belief that students can meet the expectations, learn to control themselves, think before they act, make positive changes in their lives, and be accountable for their behaviors” (Fogt & Piripavel, 2002).

Leaders can promote change by working to establish a culture that focuses on “leadership towards organizational change, the use of data to inform practice, workforce development, the use of a restraints or seclusion reduction tool, improving the consumer’s role, and debriefing techniques” (National Association of State Mental Health Program Directors, 2016). “High performing organizations contribute to management teams and employees. They work in an atmosphere of openness with an orientation toward action, a long-term focus and a commitment to continuous improvement and renewal” (Nunno, Smith, Martin, & Butcher, 2015, p. 130). Pennington, Courtade, & Ault (2016) reiterate these qualities and focus on the “promotion of high-quality programs, provision of a safe and respectful environment, instructional focus on communicative competence, a broad range of instruction, age-appropriate curriculum, and ongoing evaluation of practice” (p. 295). “There should be participation from top-level management and every employee. It is critical to promote the philosophy of comfort and support versus control” (Sanders, 2009, p. 219). Leaders must also ensure that there is communication given to all employees (Sanders, 2009, p. 219).

School leaders have the influence to “examine the role of teacher job satisfaction and school climate in mediating the differential effects of leadership practices on student achievement” (Dutta & Sahney, 2016, p. 952). School leaders can directly and indirectly influence student achievement and student success in the educational setting (Dutta & Sahney, 2016). Research has shown that “a supportive social and affective environment and a congenial physical environment will positively impact student achievement” (Dutta & Sahney, 2016, p. 953). “There is an empirical link that validates the nature of the relationship between school leadership and student learning to its importance to policymakers and practitioners as well as researchers” (Heck & Hallinger, 2014, p. 671). From research conducted based on student achievement, “the research found that instructionally focused leadership was indirectly but significantly related to math achievement through its positive effect on instructional environment” (Heck & Hallinger, 2014, p. 671).

“Building administrators are uniquely positioned to impact individual programs for students” (Pennington, Courtade, & Ault, 2016, p. 295). Decisions that leaders make and models that they demonstrate can help a school or organization sink or float and set the tone for the program's culture (Van Loan, Gage, & Cullen, 2015). Individuals with strong leadership qualities have the potential to make dramatic shifts to the culture of the school in which they work. Therefore, it is proposed that leader beliefs regarding physical restraint can have significantly predicative qualities. The leadership’s attitudes towards restraints have the potential to create a culture and environment that either predicts a higher frequency of restraint use or a lower frequency of restraint use. Administrators are responsible for collaborating and seeking out other resources to support the programs (Van Loan, Gage, & Cullen, 2015).

Summary

Based on the literature review, physical restraint “refers to a personal restriction that immobilizes or prevents students from moving his or her torso, arms, legs, or head freely” (U.S. Department of Education, 2012, p. 10). It first began in the 17th and 18th centuries with individuals in psychiatric facilities however there are no current federal laws to regulate this procedure within the educational setting. Physical restraint is often researched and discussed in reference to hospital and psychiatric facilities and is now coming to the forefront regarding the educational and school setting. Physical restraint has several risks if improperly conducted including external risks (i.e. falls, punches, kicks, bites, or falling on furniture) and even death (through blunt trauma to the chest, asphyxiation, or aspiration) (Allen, Lowe, Brophy, & Moore, 2009; Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010; Mohr, Petti, & Mohr, 2003; Rakhmatullina, Taub, & Jacob, 2013). Even if properly conducted, the use of physical restraints also presents internal risks including re-traumatization and other emotional based risks that can be aversive and counter-therapeutic may also occur but may not be as apparent (Allen, Lowe, Brophy, & Moore, 2009; Andrassy, 2016; Couvillon, Peterson, Ryan, Scheuermann, & Stegall, 2010; Evans, Wood, & Lambert, 2002). To counter improper techniques, educational settings must have the funding and staffing available to implement a proper training program with time set aside for both initial training and follow-up recertification. As more risks are identified and the usefulness of the use of physical restraints are questioned, the need for alternative interventions is necessary. Throughout the literature intervention implemented include PBS, use of FBAs, SPA, extraordinary blocking, et cetera. Based on the literature, there are only two research-based journal articles focused on the influence and impact that leaders and their beliefs have on the frequency of this procedure. Leadership is a powerful force within the educational

setting. However, the current literature surrounding the concept of leadership influence on physical restraints requires investigation with a wider variety of geographical areas as well as more investigation to determine if the leader's beliefs share a predictive relationship with the frequency of restraints that occur in the educational setting in which they lead. The predictive nature of leader attitudes on the frequency of physical restraint use is seen as a gap and area of future research within this field as this information can serve to aid leaders in better understanding the possible predictors especially in relation to staff variables (Allen, Lowe, Brophy, & Moore, 2009).

This research study promotes an expansion of knowledge in a field of research for education that has been noted to be underdeveloped (Valenkamp, Delaney, & Verheij, 2014). Dowell & Larwin (2016) focus on the importance of future research to replicate the study based on the attitudes of administrators on the frequency of physical restraints as well as also including other staff attitudes related to the use of physical restraint and the role of school demographics on the frequency. This study not only broadens the scope of research regarding geographical locations but also to the type of schools that are surveyed. Fogt (2006) emphasizes the need for future studies to replicate the current study across a wider variety of settings and students as well as look into the alternative to physical restraint, studies on outcomes of restraints, and environmental factors associated with these restraints.

CHAPTER THREE: METHODS

Overview

Physical restraint is defined as preventing and physically stopping or restricting an individual's movement (Gagnon, Gurel, & Barber, 2017, p. 67). Students who have been diagnosed with disabilities account for 75% of restraints that occur within the school setting (Gagnon, Gurel, & Barber, 2017, p. 65). Within these schools in the United States, 47,270 students were reported to be physically restrained during the 2013-2014 school year, of which 35,597 were students who are served under IDEA (Civil Rights Data Collection, 2013-2014). Two related studies completed by Fogt (2006) and by Dowell (2016) have demonstrated a predictive relationship between leaders and the number of restraints. However, this suggests further research needs to be conducted regarding varying regions of study and investigating into varying age and grade levels of the students. The significance of this study is to not only expand on current research and increase current knowledge of the use of current restraint practices, but it will provide research-based evidence on the impact that the school leaders can have on the overall school environment, specifically regarding punitive practices within the school setting. The purpose of this predictive correlational study is to determine if a predictive relationship exists between the predictor variable (school leader attitudes on restraints) and the criterion variable (the number of restraints that occur within the school in which they lead). In varying regions, it is unknown if the school leader attitudes on these restraints can predict the number of restraints that occur. Throughout this chapter, the following areas of the study are discussed: design, research question, hypothesis, participants, setting, instrumentation, procedures, and data analysis.

Design

This study uses a predictive correlational research design. This design is used when the researcher seeks to answer the question of a relationship between the variables and measure and describe the relationship between variables as results are analyzed to determine if there is a linear relationship between the variables (Rovai, Baker, & Ponton, 2013, p. 81). The predictor variable is defined as the attitudes of the school leaders as measured by a generalized attitude scale and a survey specific to attitudes and thoughts on the use of physical restraints. The criterion variable is the number of physical restraints that occur annually in private and public-school settings that serve students under IDEA. A bivariate regression analysis was conducted to identify the predictive nature of this relationship. In similar studies conducted regarding this topic, correlational studies and regression analysis have been used (Dowell & Larwin, 2016). In the original study conducted by Fogt (2006), the researcher also implemented the use of a correlational research design; however, the relationships were examined instead of the predictive nature of the relationships as are measured in this current study. Previous studies demonstrate the appropriateness of a predictive correlational research design with this type of research and similar variables.

Research Question

The research question for this study is:

RQ1: Can the attitudes of the school leader concerning physical restraints predict the number of reported physical restraints that occur in schools?

Hypothesis

The null hypothesis for this study is:

H₀₁: There is no statistically significant predictive correlation between the attitude of the school leaders as shown by the “Educational Leadership and Behavioral Interventions” survey based on the “Administrative Activities and Behavioral Interventions for Students with Behavior Disorders” survey and the number of reported physical restraints that occur in schools.

Participants and Setting

Within the participant and setting section, the population of this study is discussed along with specific information related to the participant sample. The participants were drawn using a convenience sampling from school leaders in public and private school settings within Virginia. The participants were gathered using a survey developed within the Survey Monkey application, an emailed survey, and resulted in the collection of 35 respondents. Out of the 35 respondents, only 33 were able to be used due to two of the surveys missing required information.

Population

The participants for the study were drawn from a convenience sample of Pre-Kindergarten to high school public and private schools that serve students who have been diagnosed with disabilities and that also have a history of using physical restraints or currently use physical restraints with this population. The convenience sample was drawn from schools within Virginia. Currently, Virginia has 51 special education private schools and 8 regions that serve more than 132 counties, cities, and towns including their individual elementary, middle, and high schools that serve individuals. Schools and school leaders were contacted based on Virginia Department of Education “Directory of Private Day and Residential Schools for Students with Disabilities” and the list of “All Virginia Public Schools.” Based on the responses from these schools, a convenience sample was collected. To meet the requirement of having a

history of or current use of physical restraints in the school, a notification was added to the survey stating that the scale should be completed only if the school has used physical restraint in the past or use physical restraints currently as an intervention. Schools were still able to complete the survey if they eliminated the use of physical restraint as long as other qualifications were met. Data was gathered from school leaders (i.e. headmasters, principals, et cetera) at the end of 2020 and in 2021 to report on the 2019-2020 school year.

Participants

For this study, the number of participants sampled totaled to 33, which met the required minimum for a medium effect size. In order to meet the sample size for this study for $p=0.05$ with a medium .80 effect size, $N > 104+k$. “This implies that N should be at least 105, even with one predictor variable” (Warner, 2013, p. 362). Rovai, Baker, and Ponton (2013) state that “large sample sizes of 30 participants or more are required for correlation studies” (p. 83). Based on participant responses, 105 were not able to be met however, 33 participant responses were collected for this data analysis and approved to be used for the desired data analysis. Of the participants, 13 were male, 19 were female, and one preferred not to answer. These school leaders included 17 Principals, 3 Administrators, 7 Directors, 3 heads of Schools, and 3 Assistant Principals. The gender of the participants of this study were predominately female with 58.52% followed by male with 38.24%. Participants were also given the “prefer not to say” option. Most of these school leaders had between 0-5 years of experience, with the least amount of school leaders reporting 16+ years of experience.

Setting

The sample came from 15 public schools and 18 private schools of which 7 were elementary grade levels (K-5), 3 were middle school grade levels (6-8), 2 were high school grade

levels (9-12), and 21 were a combination of grade levels (K to Post-grad). The sample included schools with students served under IDEA. This sample only gathered from school leaders within Virginia. Based on demographics, the data showed the schools consisted of a majority of males in the school populations as only 5 out of 32 school participants had a female majority of students. Two schools within the setting were evenly split with the number of male versus female students. The demographics within the schools had a variety of ethnicities representations however when looking at the percentages related to students, the majority of schools had a higher percentage of white or Caucasian students, 5 out of 32 schools had a majority of black or African American students, and 1 school had an even split in majority of these two ethnicities. For the schools that responded, 52.94% were considered to be in a rural location, 35.29% were considered urban, and 11.76% were labeled as in a suburban area.

Instrumentation

Julie Fogt originally created the survey, “Administrative Activities and Behavioral Interventions for Students with Behavior Disorders.”. Fogt created this study for a dissertation for Lehigh University in 2006. “After an extensive search for published surveys regarding physical restraint in educational settings, no instruments were identified” (Fogt, 2006, p. 43). Therefore, Fogt created a survey including demographic information and questions pertaining to physical restraint use in schools. This survey first established with a pilot survey given to 20 individuals with an 18-item survey and modified based on their responses and comments (Fogt, 2006, p. 14). This survey includes 12 questions pertaining to information on how and when physical restraints are used in the schools including questions that have participants rate the answers as never, seldom, usually, or always (Fogt, 2006, pp. 99-108). Ten questions followed, focusing on attitudes related to physical restraints including responses of strongly agree, agree,

disagree, strongly disagree, don't know (Fogt, 2006, pp. 99-108). The following 47 questions focus on how often the participants does certain actions, rated as almost never, seldom, sometimes, frequently, and almost always (Fogt, 2006 pp. 99-108). This survey ends with 10 demographic questions (Fogt, 2006, pp. 99-108). This entire survey includes 79 questions and 10 demographic questions. Richard Dowell (2016) also used this survey; however, he modified the survey d to have only 19 restraint specific questions ranging in answers including the following: strongly agree, agree, disagree, strongly disagree, unsure or do not know as well as one open-ended question (Dowell, 2016, p. 42). Permission has been received to use this survey from Fogt, and the most recent version of this survey was given, which includes a demographic section and 22 questions on a 4-point scale (Appendix A). For this research study, additional questions were added to the demographic section to ensure all relevant information was gathered.

To establish a reliability score, 39 surveys were collected. These surveys were completed by individuals who had or were currently working in an educational setting that had previously used physical restraint. Based on the survey results, a Cronbach's Alpha was used to analyze the internal consistency of the data resulting in a score of .618. To establish higher reliability ratings, the survey questions have been modified and a new reliability measure was taken (Appendix B). The version of this survey is entitled "Educational Leadership and Behavioral Interventions." This survey includes modifications to the Likert scale and the use of a 4-point scale instead of a 5-point scale. To increase reliability measures, the survey created by Fogt was modified and given out to individuals beginning in October 2019. A total of 38 surveys were returned by the end of November 2019. Once all data has been collected, it was inputted into the SPSS system and a Cronbach's Alpha was used to analyze the internal consistency of the data resulting in a

reliability score resulting in a .535. After removing question number 21, this increased the Cronbach's Alpha score based on standardized items to .622 (refer to Appendix B).

Procedures

While planning this study, director or school leader permission was gathered to get an overview of possible participants. Before this study was conducted, Liberty University approval was granted in addition to the IRB approval. Once permission was gained, the survey and related scale were sent out to identified participants using Survey Monkey and email. Electronically, the statement of consent and the restraint specific survey were included, including demographic information and questions. A deadline was set for two weeks after the original send-out date. Due to the number of responses that were gained, the survey was sent out on three different occasions to get more participants. Once surveys were collected, completed surveys and information gathered were protected under password-protected folders in excel documents. Once saved in the folder, emails were deleted from respective schools or individuals as applicable. Based on Survey Monkey, the survey took an average length of 13 minutes 24 seconds for participants to complete it. Results were put into the SPSS system, including restraint data gathered from demographic questions. No names for schools or participants were used in this study, and only demographic information was retained.

Data Analysis

For this study, a bivariate linear regression analysis, also known as simple linear regression was conducted. This type of data analysis is used when data is analyzed to make predictions about variables, including one continuous dependent variable and one continuous independent variable (Rovai, Baker, & Ponton, 2013, p. 82). This serves to answer the research question which states the following: Can the attitudes of the school leader concerning physical

restraints predict the number of physical restraints that occur in schools that serve students under IDEA? The research question consists of one dependent variable, also known as the predictor variable and one independent variable, also known as the criterion variable. Data analysis was conducted using SPSS software with a significance level of .05. When conducting the analysis, the assumptions of linearity were investigated (Pearson (r)). Data was analyzed to determine whether one variable (the attitudes of the school leaders) predicts the other variable (number of restraints that occur within a school) by looking at r^2 . Scatterplots were created and investigated to determine the predictive nature of the data as well as the assumption of linearity. Tests for homoscedasticity (variability of scores for one is the same for the second variable) and tests of normality (demonstrating a symmetric elliptical pattern) were also conducted, including the assumption of bivariate normal distribution. The Variance Inflation Factor was included in the data analysis. The output of the linear regression analysis provides information, including an ANOVA table, a coefficients table, and a model summary table. This data analysis helps to provide information to determine the accuracy of the stated hypothesis and null hypothesis.

CHAPTER FOUR: FINDINGS

Overview

A bivariate regression analysis was run to determine the predictive nature of the variables using SPSS. The data included 35 participant responses, but only 33 were usable for the data analysis due to two of the surveys not being completed fully. The responses from the anonymous participants were analyzed and used to determine whether to accept or reject the null hypothesis. To establish the variables for the analysis, the questions were placed into two categories including questions that favored physical restraint and questions that did not favor physical restraint. After the questions were placed into the two categories, the questions that did not favor physical restraint were reverse scaled to be able to create a sum (VAR) of the overall ratings in the survey (refer to Appendix C). These averages were then used to conduct the bivariate regression analysis using SPSS. Information related to the results of this research study can be found below.

Research Question

The research questions for this study is:

RQ1: Can the attitude of the school leader concerning physical restraints predict the number of physical restraints that occur in schools that serve students under IDEA?

Null Hypothesis

The null hypothesis for this study is:

H₀1: There is no statistically significant predictive correlation between the attitude of the school leaders as shown by the “Educational Leadership and Behavioral Interventions” survey based on the “Administrative Activities and Behavioral Interventions for

Students with Behavior Disorders” survey and the number of reported physical restraints that occur in schools.

Descriptive Statistics

The total number of participants was 35 however, only 33 fully completed the survey and were able to be used for this analysis (N = 33).

Table 1

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
totalpr	33	179	0	179	22.12	7.195	1708.360
VAR	33	35.00	30.00	65.00	46.878	1.36290	61.297
Valid N (listwise)	33				8		

For each survey, a question was completed by each leader to identify the total number of physical restraints that occurred in the 2019-2020 school year. For the 33 participants, there was a range in the number of physical restraints reported ranging from 0 to 179. For the 33 participants, there was an average of 22.12 physical restraints for each school with a standard deviation of 41.33. Using the sum of scores for each survey participant, there was a minimum sum of scores of 30 and a maximum sum of 65 regarding the use of physical restraint in schools. There was an average of 46.88 for the surveys with a standard deviation of 7.83.

Results

Hypothesis

The null hypothesis for this study is:

H₀₁: There is no statistically significant predictive correlation between the attitude of the school leaders as shown by the “Educational Leadership and Behavioral Interventions” survey based on the “Administrative Activities and Behavioral Interventions for Students with Behavior Disorders” survey and the number of reported physical restraints that occur in schools.

The statistical test used to test this hypothesis was the bivariate regression analysis. This statistical test was run using the program SPSS. This test was “conducted to evaluate whether X is useful in predicting Y” (Green & Salkind, 2014, p. 249). For this analysis, the fixed-effects model of assumptions was used and included the assumptions that: “the dependent variable is normally distributed in the population for each level of the independent variable, the population variances of the dependent variable are the same for all levels of the independent variable, and the cases represent a random sample from the population in which scores are independent of each other from one individual to the next” (Green and Salkind, 2014, p. 249).

The bivariate regression analysis was conducted to determine the predictive correlation between the attitude of the school leaders and the number of reported physical restraints that occur in schools. This analysis was run with a 95% confidence interval. The Pearson Correlation (Pearson r) ranges from +1 to -1, with 0 being no linear association (Warner, 2013). The Pearson Correlation of the sum of the survey questions (VAR) and the total number of physical restraints (totalpr) shows a slightly negative predictive correlation that is closer to having no linear association with the Pearson r of -.005 (Table 2).

Table 2

Correlations

		totalpr	VAR
Pearson	totalpr	1.000	-.005
Correlation	VAR	-.005	1.000
Sig. (2-tailed)	totalpr	.	.979
	VAR	.979	.
N	totalpr	33	33
	VAR	33	33

The p -value for this analysis was $p=0.05$. The significance level (2-tailed) for the analysis showed a level of 0.979. This indicates that there is insufficient evidence in this sample to conclude that a non-zero correlation exists between the predictor and criterion variables. This means that there is not sufficient evidence in this sample to reject the null hypothesis. The R is the correlation between the two variables in the analysis (Table 3).

Table 3

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.005 ^a	.000	-.032	41.993

a. Predictors: (Constant), VAR

b. Dependent Variable: totalpr

The data analysis shows that $R=0.005$. The R square is the measure of model fit. For this analysis, the R square = 0 showing no correlation between the variables. The ANOVA table (Table 4) and the Coefficients table (Table 5) further demonstrate that there is not a predictive relationship between the two variables.

Table 4*ANOVA^a*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.301	1	1.301	.001	.979 ^b
	Residual	54666.214	31	1763.426		
	Total	54667.515	32			

a. Dependent Variable: totalpr

b. Predictors: (Constant), VAR

Table 5*Coefficients^a*

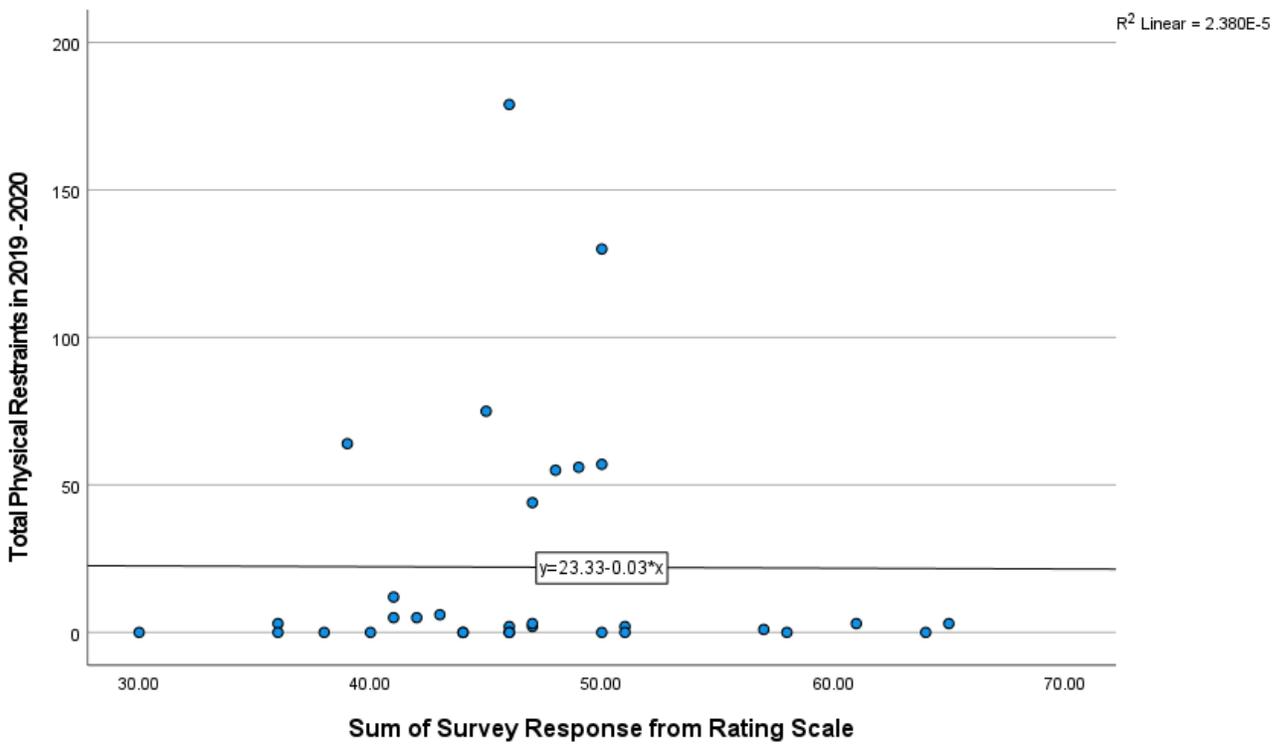
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	Constant	23.328	45.046		.518	.608	-68.543	115.200
	VAR	-.026	.948	-.005	-.027	.979	-1.960	1.908

a. Dependent Variable: totalpr

The coefficients table further shows that with an increase in the total sum of the survey, the number of restraints goes down by 0.026 points. This is not a significant change to show a predictive relationship between the two variables. The scatterplot demonstrates a visual model of the analyzed data. The scatterplot as shown in Figure 1 indicates that the two variables are not linearly related, as shown by the fit line through the scatterplot.

Figure 1

Scatterplot of the Total Physical Restraints and Sum of Survey Ratings Per Participant

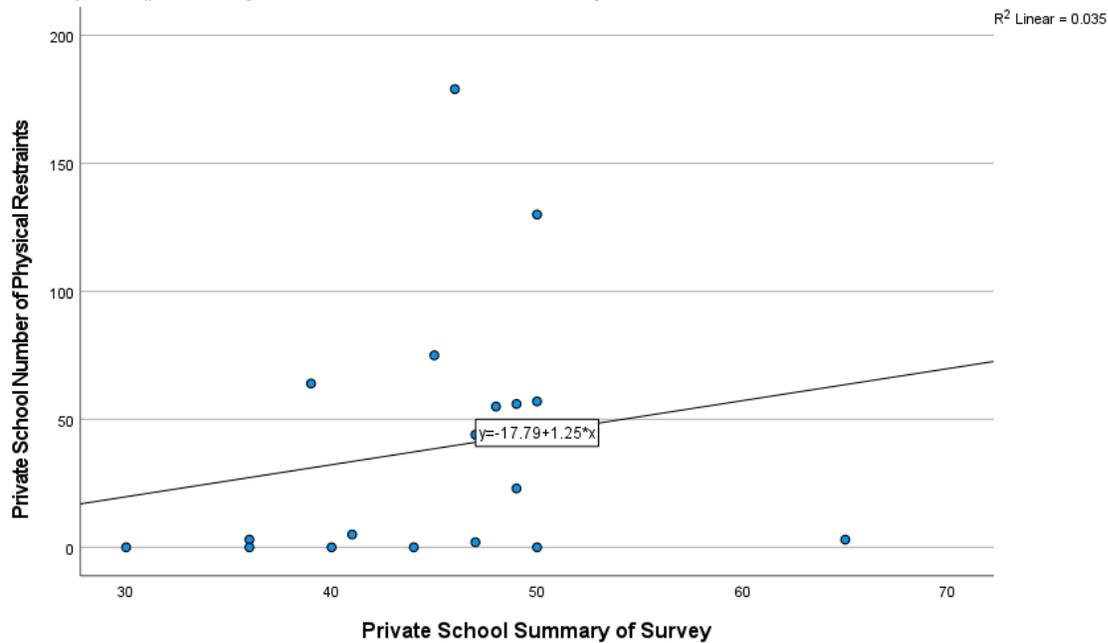


Note: Scatterplot of Physical Restraints and Sum of Survey Responses – This figure shows a scatterplot evaluating the predictive nature of the total number of physical restraints that occur in a school and the responses of leaders within the schools.

When looking at the data and analyzing it by school type, the data showed a slightly more significant linear predictive relationship between the number of physical restraints that occurred and the sum of the survey for leaders in private schools (Figure 2) in comparison to the data analyzed for public school leaders with the same variables (Figure 3).

Figure 2

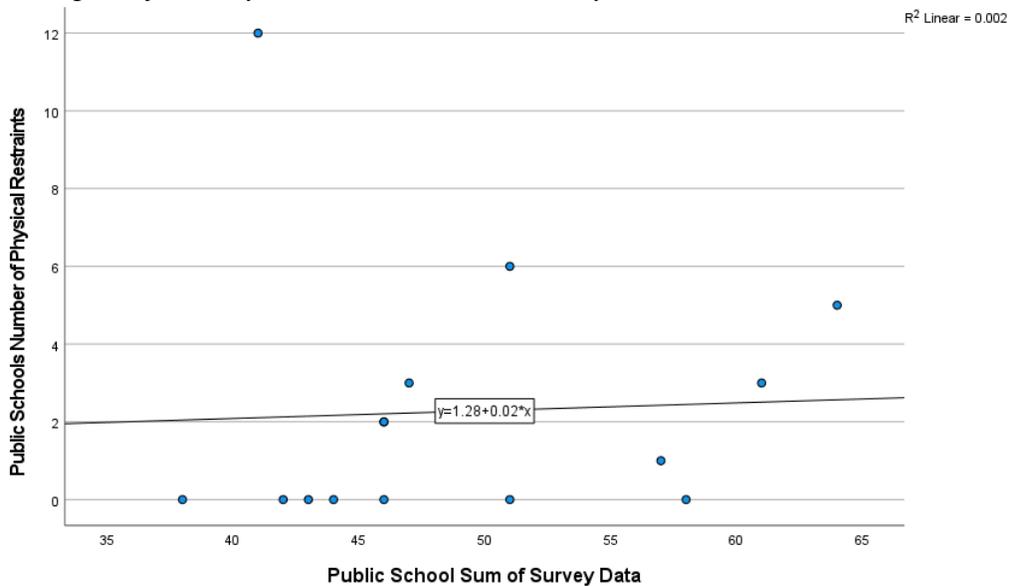
Scatterplot of the Physical Restraints and Survey Data in Private Schools



Note: This scatterplot shows the data related to private school leader responses to surveys and the number of physical restraints that occurred in the school environment.

Figure 3

Scatterplot of the Physical Restraints and Survey Data in Public Schools



Note: This scatterplot shows the data related to public school leader responses to surveys and the number of physical restraints that occurred in the school environment.

The data analysis for leaders in private schools (Table 6) shows the Pearson Correlation (Pearson r) at 0.188. This has a significance of 0.227 at the $p=.05$ level. This data shows that for Private School leaders, there is a slightly positive linear relationship between the number of physical restraints and the sum of the leader responses towards physical restraints. The significance level demonstrates that there is still not sufficient evidence to reject the null hypothesis.

Table 6

<i>Correlations</i>			
		Physical Restrains	Sum of Survey
Pearson Correlation	Physical Restraints	1.000	.188
	Sum of Survey	.188	1.000
Sig. (1-tailed)	Physical Restraints	.	.227
	Sum of Survey	.227	.
N	Physical Restraints	18	18
	Sum of Survey	18	18

CHAPTER FIVE: CONCLUSIONS

Overview

The bivariate regression analysis was conducted using the two variables of the total number of physical restraints in schools and the leader responses in attitudes related to the use of physical restraint in school. This data was analyzed in the previous chapter. In this chapter, the results are discussed to include a discussion of the data, implications of the study, and limitations.

Discussion

Within the literature related to the use of physical restraint, most of the literature found focuses on the negative aspects, risks, and outcomes of the use of physical restraint. Fewer pieces of literature focus on the positives of the use of physical restraint. There are several pieces of literature that focus on the use of physical restraints, with the most common setting discussed being hospital settings; however, the focus of this research study was on the use of physical restraints in the school and educational settings. Some articles have connected the increase of physical restraint in the school setting to the “advent of the inclusion of students with disabilities into the general education curriculum as mandated by federal legislation” (Barnard-Brak, Xiao, & Liu, 2014, p. 463). Within the literature review, there is often a focus on the use of restraint in correlation with the use of seclusion, and there are focuses on several types of restraint, including physical restraint, chemical restraint, and mechanical restraint. This study focused on physical restraint defined by the U.S. Department of Education as “ambulatory and manual restraints which refer to a personal restriction that immobilized or prevents students from moving his or her torso, arms, legs, or head freely (does not include physical escort)” (2012, p. 10).

The use of restraint had its origins during the Enlightenment as well as in the 18th century (Colaizzi, 2005). In the past and even currently, the use of these interventions related to restraint are thought to be a necessary for intervening with certain behaviors, especially for students with challenging behaviors. There continue to be advocates for the use of physical restraint with students in the educational setting and advocates against the use of physical restraint. Data was taken on the use of physical restraints within the school setting and based on the CRDC report, in 2017-2018, there were 101,900 students out of 50,922,401 students who had a report of a restraint or a seclusion (U.S. Department of Education and Office for Civil Rights, 2020, p. 5). There were reportedly 79,676 students out of the 101,900 students that were reported to be students with disabilities (U.S. Department of Education and Office for Civil Rights, 2020). The number of students with disabilities from the data is about 13% of the students served however, students with disabilities also account for 80% of the physical restraints that occurred (U.S. Department of Education and Office for Civil Rights, 2020, p. 6). The CRDC data also correlates with reports from various research studies that also report a high number of incidents of restraint used for students with disabilities or challenging behaviors. These results associated with data taken in the United States are also similar to data taken in other countries related to the use of physical restraint.

For some individuals, the use of physical restraint in any setting is thought to be the “result of treatment failure” (U.S. Department of Health and Human Services, 2019, p. 1). The description of usage of physical restraints is referenced as only being used for situations that require immediate intervention for safety purposes. Despite this purpose of physical restraint, there are many incidents that are reported to be “most commonly used to address loud,

disruptive, noncompliant behavior and generally originate from a power struggle between consumer and staff” (U.S. Department of Health and Human Services, 2010, p. 2).

Physical restraint is often a topic of controversy for its use within the educational setting however, there is no federal laws related to this intervention. “The United States Constitution is silent as to the federal government’s duty to educate its citizens, thus public education in the United States has traditionally been left to the state and local governments. However, the federal government does play a limited role in education policy through the United States Department of Education, Congress, and the federal judiciary” (Hawley, 2020, p. 1176). In 1977, a court case occurred in which the supreme court ruled that “the corporal punishment of students could not be considered cruel and unusual under the Eighth Amendment (Hawley, 2020, p. 1178). States have various regulations, policies, and guidance related to the use of physical restraints. These regulations are not consistent across all states, nor do they exist in all states. Based on studies concerning regulation and policies related to the use of physical restraint, often major moves are not made within the local or state government without a major report on the risks related to physical restraint, the number of physical restraints reported to occur, or until a major injury is sustained due to the use of a physical restraint. In 2000, a court case occurred, and it was ruled that parents could sue for damages related to the use of restraint on their child (Barnard-Brak, Xiao, & Liu, 2014, p. 463). There has been a recent national call to action in 2003, which provided grant money to states to develop and promote restraint-free mental health services (U.S. Department of Health and Human Services, 2010). In 2006, a court case occurred in which the court ruled that states can monitor and regulate the use of restraint in the school settings (Barnard-Brak, Xiao, & Liu, 2014, p. 463). Virginia was awarded the three-year grant from the national call to action movement in 2007 (U.S. Department of Health and Human Services, 2010,

p. 4). In 2009, the GAO received a report of deaths and injuries related to the use of physical restraint on students in school settings and reported this information along with state information regarding state policies around the use of physical restraints. Virginia was reported to have some restrictions on the use of restraint, required training to occur with staff, and required notifications to be made to parents if a student is subjected to physical restraint (Kutz, 2009, p. 17). Based on the information from the GAO, legislation was proposed but did not pass approval; however, the U.S. Department of Education created 15 principles related to the use of restraint and seclusion (U.S. Department of Education, 2012, p. 6). The OCR has also been collecting data related to the use of physical restraint; however, the reports are often several years behind, with the most recent data report coming from the 2017-2018 school year (U.S. Department of Education and Office for Civil Rights, 2020, p. 1). “The lack of commonly accepted guidelines or accreditation standards in schools might make these more susceptible to misunderstanding, improper implementation, or even abuse of interventions” (Ryan, Peterson, Tetreault, & van der Hagen, 2008, p. 204). In 2019, the U.S. Department of Education’s Secretary of Education created an initiative focused on using restraint in schools and its use with students with disabilities and creating support for policies and laws within states instead of a federal or nationwide mandate (U.S. Department of Education and Office for Civil Rights, 2020). When considering the use of physical restraints, there are standards of care that are addressed based on the principles from the United States Department of Education. Within Virginia, the policies and regulations related to the use of physical restraint in a school setting are monitored by each school and in correlation with the Virginia Department of Education.

Several predictive factors are discussed in the literature related to students and individuals that are more likely to be subjected to physical restraint. These predictive factors

include younger students, male students, and the predictive factor that is most relative to this research study which is students who are exhibiting challenging behaviors and children with disabilities who are served under IDEA (U.S. Department of Education and Office for Civil Rights, 2020, p. 6). These predictive factors are essential for staff and leaders to understand in order to help them be aware of their own beliefs and feelings about other individuals.

Understanding and reflecting on their actions can help to ensure that students are not singled out due to these factors when using physical restraint.

When considering the use of physical restraint, it is important also to consider the risks associated with this intervention. These risks can include external factors such as injuries to staff and students and even death. Risks can also include internal factors such as re-traumatization to both staff and students. Risks are not only related to physical or internal injuries but also can be monetary risks related to lawsuits, training, insurance, et cetera. The use of physical restraints and the way in which these are used and the reasons they are used can directly affect the climate and culture of a school as well as directly affect the relationships between the staff and the students.

When delving into the use of physical restraint, there is also discussion and literature regarding training and alternatives to the use of physical restraint. If educational settings take the step to move away from using the physical restraint it is imperative that staff are trained effectively on the alternative response options. Some trainings teach appropriate ways to implement the use of physical restraints if that is an intervention that is implemented within a particular setting. Leaders within these school settings play a large role in identifying training programs for their staff members as well as the direction that the training will take. As school leaders, they are also pivotal in identifying professional development opportunities for the staff

in their school that will ensure that staff are appropriately trained for implementation of interventions.

The belief that individuals learn best when they are happy and interested was a statement based on the use of individuals subjected to physical restraint however this is also important to consider when looking at the influence of leaders in the school setting. School leaders have a major influence on the workplace and the environment for students and staff and are “uniquely positioned to impact individual programs for students (Pennington, Courtade, & Ault, 2016, p. 295). Based on a study by Dowell and Larwin, it is the responsibility of the school leader to establish the culture of the school, set the tone for learning, prepare budgets (which can directly affect trainings), provide leadership, motivate staff, set standard, remain up to date with regulations, and have the potential to impact the school environment (2016). “Many times, teachers and administration fail to recognize that an administrator’s leadership style greatly affects the climate and can create a learning environment that is negative and counterproductive” (Pepper, Hamilton, 2002, p. 155). The school leader has the power to affect what occurs within the school setting and can affect the school positively or negatively. Leadership can promote change and influence innovation to develop new and creative ideas of how to work with students.

The purpose of this study is to determine if school leader attitude will predict the number of physical restraints that occur within a school environment. Based on the bivariate regression analysis conducted on the predictive and criterion variables of this study, there is not a statistically significant predictive relationship between the number of physical restraints and the survey responses of the participants of leaders in public and private schools. The scatterplot did not show a linear relationship between these variables; however, when the public and private school leader responses were separated, and the private school leader responses showed a

slightly positive linear relationship between the variables (Figure 2 and Figure 3). Based on the results, the data is unable to reject the hypothesis:

H₀1: There is no statistically significant predictive correlation between the attitude of the school leaders as shown by the “Educational Leadership and Behavioral Interventions” survey based on the “Administrative Activities and Behavioral Interventions for Students with Behavior Disorders” survey and the number of reported physical restraints that occur in schools.

There have been two similar studies to this study. The first original study was completed by Fogt (2006), and the follow-up study was conducted by Dowell (2014). These studies have shown a predictive relationship between the leadership views on physical restraints and the number or frequency of physical restraints that occur in a school setting. In the original study conducted by Fogt in 2006, the researcher focused on sampling elementary principals in residential and day treatment school programs in New York, New Jersey, and Pennsylvania and looked at the correlation between the frequency of physical restraint in the school setting and the attitudes of the school leaders. Based on Fogt’s results, there was a weak but significant finding between the two variables (2006). In a second study related to these variables, Dowell found a strong relationship between the frequency of physical restraints and the attitude of the school leaders for participants from Ohio and Pennsylvania (2016). These studies provided the background and foundation of this study and provided comparative data to analyze this study. Both studies were able to gain higher levels of participation for their respondents, with Fogt having 72 usable surveys and Dowell having 202 usable surveys (Fogt, 2006; Dowell, 2016).

For this survey, the survey consisted of statements related to attitudes of school leaders around the use of physical restraint in school settings. For each statement, individuals were asked to rate their level of agreement by identifying if they strongly agree, agree, disagree, or strongly

disagree. There were 54% of individuals that agreed or strongly agreed with the statement that physical restraint is needed to keep schools safe while 45% disagreed and strongly disagree with that statement. This reflects the varying thoughts related to the use of physical restraint in school settings. There are different areas of thought. Some leaders and staff believe that the use of physical restraint is necessary for safety especially for students who are presenting unsafe or challenging behaviors. There are also advocates for the removal of physical restraint from school settings who also view this as an untherapeutic intervention.

The percentages were flipped when asked to state the attitude related to the statement that physical restraint increases the safety of schools, with 45% in agreement (agree or strongly agree), 57% in disagreement, of which 12% strongly disagreed. This is a similar representation of percentages as the question of whether physical restraints are needed to keep school safe. However, the percentages do change regarding the direction of the highest percentage. This is a discrepancy in the view of the impact of the use of physical restraints on schools. Based on these two questions, it would be expected that if leaders feel that physical restraint is needed to keep schools safe that it would also increase the safety in schools. It would be helpful to have more information on this question to determine why individuals that agree with the first question did not also agree with this question and perhaps what the leaders were viewing regarding what does make school safe and how much the use physical restraint does promote safety in the school setting. This question also had a larger number of individuals that strongly disagree compared to the first question with a variation of 6%.

When given the statement that physical restraint constitutes punishment, 82% disagreed with this statement. Around 18% agreed with this statement. Based on research, physical restraint is not meant to be used as a punishment. It is meant to be used for students that require

immediate intervention for safety purposes. Within the research, there are concerns that physical restraint is used for more than just immediate safety concerns. It is an intervention that often can result from power struggles between staff and students.

Within research, there is significant research data focused on the risks associated with the use of physical restraint, alternatives to restraint, and studies focused on decreasing or eliminating the use of restraint. For this study, there was less research found that supported the use of physical restraint; however physical restraint continues to be a common intervention, especially with students with disabilities or with challenging behaviors. Although there continues to be the use of physical restraint as an intervention in the school environment, 63% of school leaders state that there is insufficient research to support the use of physical restraint to decrease violent behavior in children. Leaders also expressed that 66% believed that there was insufficient data opposing the use of physical restraints in schools. The continued use of physical restraint, despite sufficient research, can be directly affected by the varying laws and regulations in the country related to their use.

When given the belief that physical restraint has therapeutic value for children, 21% agreed or strongly agreed with this statement while 79% disagreed or strongly disagreed with this statement. Although there was a close percentage of agreement when asked if physical restraints keep schools safe, there is a larger difference in percentage related to the view that physical restraint has therapeutic value. Based on these answers, it can be assumed that more leaders view physical restraint as a necessary intervention to maintain safety however do not see it as therapeutic in nature. This correlates directly with research on this topic that describes the risks of the use of physical restraint and the lack of therapeutic value that it can have on the school environment, on staff, and students.

School leaders disagree at 60% with the statement that physical restraint tends to be overused in school while 39% agreed with this statement. This question also correlates with the use of physical restraint and the varying views on its use. This question asks each school leader to evaluate their school when answering these questions, and based on this, reported that they do not believe that restraint is overused. Some individuals may view any use of physical restraint as being overused, while others may implement a higher plateau with their beliefs. This question could have been supported by additional information from leaders about what they viewed as an unacceptable frequency of use.

Sixty-six percent of individuals disagreed with the statement that physical restraint helps students to de-escalate effectively, and 33% agreed with this statement. This also correlates with the question regarding the therapeutic value and the ability of physical restraint to change student behavior. Each of those questions relates to this percentage and shows a consensus that leaders recognize that this intervention does not always help students to de-escalate.

When given the statement that physical restraint is needed for some students to behave, school leaders agreed (and strongly agreed) with this statement with 36%. School leaders disagreed (and strongly disagreed) with 64%. The majority of leaders did not feel that physical restraint is needed for students to behave. This shows leaders are open to other interventions instead of relying on the use of physical restraint. These responses do also show that 36% of participants felt that the use of physical restraint is needed for some students to behave. School leaders had a split level of agreement that students need physical restraints even if they don't realize it, with 40% agreeing with that statement and 60% disagreeing with that statement. This shows a good attitude of the leaders related to the use of physical restraint and the necessity of its use for students.

There was a relative consensus on some statements within the survey, including that staff members should be adequately trained to use physical restraints, with 88% strongly agreeing. Training is imperative to be able to create effective programs and interventions for students. This includes training and professional development related to the use of physical restraint as well as other important aspects related to the education of students. Leaders play a pivotal role in choosing, budgeting for, and implementing training programs that will provide staff with the necessary skills they need to be successful and to effectively help students.

School leaders also agree that staff members are able to recognize potentially violent situations with 94% in agreement (agreeing or strongly agreeing). This aspect is important for staff to be effectively trained on and to clearly understand so that effective interventions can be proactively put into practice. When situations occur quickly, it is imperative that school leaders and staff can recognize these signs and react appropriately. Being able to recognize the signs of a violent situation early can aid staff in making the correct decision and most appropriate response.

School leaders appear to be confident in staff abilities to know how to de-escalate potentially violent situations and employ the least restrictive measures before resorting to physical restraint, with 97% in agreement with this statement. This type of skill comes from training for staff to understand a situation and understand effective de-escalation interventions and understand how and what steps to implement in these situations prior to resorting to the use of physical restraint.

School leaders disagreed at 85% with the statement that physical restraint decreases the violent behavior of students. This shows that leaders, although several view the use of physical restraint as necessary for safety that they have a consensus of understanding that physical

restraint does not have therapeutic value to be able to decrease behaviors of concern. The intervention is used for safety and not for an intervention to change or modify behavior.

School leaders disagreed with the statement that physical restraint should not be used on any students with disabilities in schools with 88%. This demonstrates a belief that physical restraint should be used on students if needed, including those students served under IDEA who have challenging behaviors and who have disabilities. A predictor of students being more likely to be physically restrained was related to students who have a disability. This is an important predictor variable to be aware of when moving forward with the use of various interventions.

Although school leaders did feel that the use of physical restraint should be able to be used for students who have been diagnosed with disabilities, they did not feel that it should be used on all students with disabilities with 94%. This shows that leaders are evaluating the need for physical restraint and working to ensure that the predictor variable is held accountable through this quality assurance, as not all students with or without disabilities require the use of physical restraint.

School leaders agreed that physical restraint should be an option with 91% and agreed that physical restraint is not needed to maintain order with 85%. This shows that although most school leaders see the need for physical restraint, they believe that there are other ways to maintain order and that physical restraint should not be relied on to promote order within the school setting. School leaders agreed that physical restraint could make student behaviors worse with 88% of leaders that agreed or strongly agreeing with this statement. Leaders are showing that they are seeing that physical restraints are not the go-to intervention that the use of physical restraints can make behaviors worse. This can happen due to external and internal risks including re-traumatization of students by implementing a physical restraint.

From the surveys, 82% disagreed that physical restraint can help students change their behaviors. This shows an understanding that as an intervention, it is important to implement other interventions that can help students to be successful. Physical restraint is not able to change behavior and shouldn't be used for behavior modification. Other plan and programs must be implemented to promote behavior change. This was supported by another question that asked leaders if physical restraint is an effective intervention to modify behavior. When asked this question, 75% of participants believed physical restraint is not an effective intervention.

There were 93% of school leaders that do not feel that physical restraint makes school more effective, and 88% did not feel that the use of physical restraint created a better learning environment. These two questions relate to each other. They show that most leaders believe that the use of physical restraint alone does not make a school more effective or create a better environment. This is an important consensus as the school leaders and these views directly affect the school setting.

All school leaders agreed that physical restraint can cause trauma to staff with 100%. This shows a leader understanding the internal risks that occur with the use of physical restraint. This is an important factor for leaders to know and understand when implementing interventions and when working with staff who are implementing those interventions on a routine basis. It is important for leaders to support their staff so that their staff can then support the students. Participants were given optional open-ended questions to respond to at the end of the survey. Participants were asked to describe their thoughts on the use of physical restraint in the school setting. Participants were also asked to provide a description of their thoughts on the effect that the attitudes of school leaders can have on the school's culture. The open-ended question delves into participants' thoughts on the use of physical restraint in schools and gives the participants an

open-ended avenue to respond with their thoughts. There are several themes that are apparent within the participant responses. Most respondents stated that physical restraint should be used for immediate threats of harm to self or others, which is stated throughout the research regarding the use of physical restraint with students. This correlated with information the U.S. Department of Education has published, including stating that “physical restraint and seclusion should not be used except in situations where the child’s behavior poses an imminent danger of serious physical harm to self or others and restraint and seclusion should be avoided to the greatest extent possible without endangering the safety of students and staff” (2012, p. 2).

The participants also had a majority of individuals that stated physical restraint should be used as a last resort after attempting all other interventions first. This correlates with the previous statement of using physical restraint only for immediate threats of harm to self or others. This also correlates with research studies in which a decrease in physical restraint is also related to only using physical restraint when absolutely necessary and following regulations related to ensuring that physical restraint isn’t used for punishment or coercion.

Other important information can also be gained from the comments on the open-ended question however, there weren’t as many mentions of the following topics from participants when compared to the two comments regarding use only for immediate threats to self or others and using physical restraint only as a last resort. Several participants highlighted the need for training of staff, not using physical restraint as a behavior modification tool, and ensuring that physical restraint is not used as a long-term tool as this can directly affect the culture of the school and employees. These comments relate directly to research, especially the need for training of staff and the effects that physical restraint use can have on students, staff, and the school culture. In the responses, minimal individuals highlighted other aspects mentioned in

literature, such as trauma, the different needs of students in various educational settings, and the need for the use of physical restraint with certain types of behaviors to ensure safety while working towards other interventions.

Participants also highlighted aspects related to school leaders and their effects on the school culture. Common themes for these comments included the importance of servant leadership, understanding the risks of interventions used, courage, accountability, the importance of feedback to staff, the school leader's view on the use of interventions, training planning, modeling for staff, kindness, positivity, supporting staff, emphasizing safety, focusing on a trauma-informed culture and language, setting the tone and attitude of the school, willing to help, and listening to staff. These themes mentioned are essential for leaders to demonstrate and model to their staff. These participants focused on several important factors that are also mentioned within the research. Dowell and Larwin mentioned the importance of leaders establishing the culture of the school as well as setting the tone for learning (2016). Peeper and Hamilton focused on the importance that leaders plan in the climate of the educational setting (2002). "Teachers who characterized their principals as supportive found work more rewarding; enjoyed a productive, motivating work environment; demonstrated lower attrition rates and experienced less job-related stress and burnout" (Pepper & Hamilton, 2002, p. 156). It is imperative that school leaders understand their power and effects on the school culture and the direction of the school regarding interventions and programming. Although the statistics from this research study do not show a predictive relationship between the frequency of physical restraints and the attitudes of school leaders, school leaders that responded to this survey recognized that power and influence that they, as school leaders, can have on the school environment as well as the way that their staff are influenced by their actions and behaviors.

The data in this study and the literature review on this topic provide an investigation into past and current use of interventions with students, specifically interventions related to physical restraint. The findings provide additional insight into the attitudes of school leaders as well as the number of physical restraints that are reported to occur in public and private schools in Virginia. This expands the original research by looking at other geographic areas as well as encompassing the attitudes and beliefs for leaders in both private schools, including day treatment and residential schools as well as public schools. Although the findings did not provide enough evidence to reject the null hypothesis, it does provide the opportunity to build on these results to identify further research opportunities related to this topic.

Implications

The data does not show evidence of a predictive correlation between the variables of the number of physical restraint and the attitudes of school leaders. The number of respondents to this survey was smaller than the original goal for this survey; however, it still provided significant data for use to investigate the attitudes of school leaders. The survey results show a range of school leader beliefs related to the use of physical restraint in the school setting and give greater insight into the thoughts of current school leaders that have the position to be able to influence the school environment. There continue to be differing attitudes related to the use of physical restraint in the school setting; however, overall attitude responses show that although school leaders recognize that physical restraint can cause trauma to specific individuals, there is still an attitude that the use of physical restraint should not be taken away as an option for an intervention to be used in the school setting. Based on the survey responses, there is a need for continued and further research in the area of physical restraint including more research and discussion regarding the use of physical restraint as an intervention, the ability of physical

restraint to modify behavior, and the research related to the effect of the use of physical restraint on students as a higher majority of school leaders stated that there was not sufficient research available that opposes the use of physical restraint in the school setting.

Limitations

When conducting this research study, there were several factors that may have affected the results and findings of this study. One of the major aspects of this study that was affected was the number of responses that were received for this study. The number directly impacted the data analysis and the potential ability to reject the null hypothesis. The number of responses was directly related to the worldwide events due to the COVID-19 pandemic. While requesting individual and school participation in this study, several schools did not want their school leaders to participate in surveys due to the additional stressors already in place due to COVID-19 in the school setting. The stress that was initiated by the COVID-19 pandemic as well as the school closures may have caused participants to not be willing or able to respond to this survey.

Another limitation related to this data is related to the accuracy of the responses from the school leaders. The use and belief in the use of physical restraints can have a negative connotation in today's society. This could have had an impact on the number of physical restraints reported and the responses to the survey. Survey results could also have been affected by the accuracy and understanding of each statement and response by the individual respondents. This could have resulted in human error. Due to the COVID-19 pandemic, the frequency of physical restraints could have been construed due to some students and parents continuing to have their children participating virtually or by having students who were previously in person participate in another online program instead of an in person learning program in schools.

This study focused on the geographical area of Virginia. This did not consider schools or the beliefs of leaders in other states. Since the individual responses did not indicate a specific geographical location within Virginia there is not able to be a comparison of school leader beliefs in different areas within Virginia (i.e. northern vs. central vs. southwest) to determine if a more specific geographical location impacted attitudes of school leaders or the frequency of physical restraint. All of these factors may have influenced the results of this study. It is important to remember that data from the use of physical restraints is often self-reported, and for this study, it was self-reported by the participants. This self-reported nature of the frequency of physical restraint can cause issues with the data collection; therefore, data in other aspects should go through quality assurance to ensure accuracy of information and more reliable data related to what is also reported (Diament, 2020, para. 6).

Recommendations for Future Research

This study is the third known study related to this topic of looking at the predictive nature and relationship of the attitudes of school leaders related to physical restraint and the number of physical restraints that occur in school settings. This study was conducted in Virginia focusing on public school and private school leaders. The geographical location varies from the original two studies related to this topic. This study and the results of this study were not able to reject the null hypothesis and did not show a relationship between these two variables; however, research shows that leaders do have an influence and make an impact on the school environment and school setting. Therefore, it can be assumed that leaders also impact the use of physical restraint in the school setting. School leaders who responded to this survey also focused on the influence that school leaders have on the school environment in their open-ended questions. This leads to several errors that can be focused on for additional research. Further research should be done to

include the following: conducting this survey in other geographical areas, gaining a more specific understanding of the beliefs of school leaders in different regions within Virginia, and expanding the research to include a higher number of school leaders both in public and private schools, expanding the comparison of interventions on the behavior change in students, and expanding on the research of the effects of the use of physical restraint on students in the school setting. Additional research should also be focused on further understanding the impact that school leaders have on school culture, school programming, and school use of interventions. Due to the COVID-19 pandemic, changes in the behaviors of students have been noted to have increased due to the school closures and the eventual return to in-person learning. It would be recommended that further research be completed on the number of physical restraints in schools prior to COVID-19 and after the return to in-person learning. Since the COVID-19 pandemic, staffing has become an issue in the educational setting. It would be a recommendation to also look at the impact of leader attitudes after the pandemic on the school environment.

It is recommended that this research study be expanded to include educational leaders in other geographical areas. This will aid in the impact of this study to determine the impact of leaders on the educational setting in various locations. It is also recommended that this study be completed in order to expand the number of participants and the number of leaders in different school settings to generalize this data and to gain a larger understanding of the impact of leaders on the school environment, especially in relation to the use of physical restraints.

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APPENDICES

APPENDIX A

Administrative Activities and Behavioral Interventions for Students with Behavior Disorders

Directions - Please respond to each item below based on information from the previous school year (2003-2004). 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 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.

1. Do you currently use physical restraints in your school or have a protocol for when physical restraints can be used? (if you do not currently have a protocol in place for use of physical restraints, please skip to question 13 and then answer the questions in the next section)

yes no

2. Which best describes the average number of physical restraints that occur with students in grades K-12 in your school? (please check one) None Less than 1 per month 1-3 per month 1-3 per week 1-3 per day More than 3 per day

3. Which best describes the type of physical restraint training that is offered to your staff? (please check all that apply) None CPI (Crisis Prevention Institute) Devereux Mandt PART (Professional Assault Response Training) TCI (Therapeutic Crisis Intervention) Other: _____

4. Which best describes the number of hours of physical restraint training that is required annually for your staff? (please check one) None Less than 1 hour 1-4 hours 5-8 hours 9-12 hours More than 12 hours

5. Which best describes the types of physical restraints used by your staff? (please check all that apply) None Basket holds Chemical restraints / medication administration Clothing restraints Mechanical restraints Prone restraints

Other: _____

6. Which best describes the conditions under which physical restraint is used at your school? (please check all that apply) Leaving assigned area, but remaining in the building Leaving school building Physical aggression towards students Physical aggression towards staff Physical threats Property destruction Refusal to complete academic work Refusal to follow teacher directions Verbal threats

Other: _____

7. Which best describes the conditions under which physical restraint is discontinued at your school? (please check all that apply) Specific period of time has elapsed Student is placed in seclusionary time-out Student stops struggling Student verbally indicates a willingness to cooperate Other: _____

8. Which best describes your school's policies and procedures governing the use of physical restraint in your school? (please check one) No written policy exists Written policy available upon request for staff Written policy disseminated to staff

Other: _____

9. Which best describes how physical restraint episodes are recorded by your staff? (please check one) No record keeping system in place Informal notes kept by staff

Standard form used by all staff Other: _____

10. Which best describes how often parents are informed within 24 hours that their child was physically restrained by your staff? (please check one) Never Seldom

Usually Always

11. Which best describes how often physical restraint episodes are observed by another staff member? (please check one) Never Seldom Usually Always

12. Which best describes how often students are injured as a result of physical restraint use?

(please check one) Never Seldom Usually Always

13. Which best describes how often staff are injured as a result of physical restraint use? (please check one) Never Seldom Usually Always

Directions – Please rate each of the following statements according to how much you agree or disagree with them. (please check only the most appropriate response)

1. Physical restraint is needed to keep schools safe and orderly. Strongly Agree Agree

Disagree Strongly Disagree

2. The use of physical restraint increases safety in schools. Strongly Agree Agree

Disagree Strongly Disagree

3. Physical restraint constitutes punishment. Strongly Agree Agree Disagree

Strongly Disagree

4. Staff members are adequately trained in the use of physical restraint. Strongly Agree
 Agree Disagree Strongly Disagree
5. Staff members know how to recognize potentially violent situations. Strongly Agree
 Agree Disagree Strongly Disagree
6. Staff members know how to de-escalate potentially violent situations and employ least
restrictive measures prior to resorting to physical restraint. Strongly Agree Agree
 Disagree Strongly Disagree
7. There is sufficient research supporting the use of physical restraint to decrease violent
behavior in children. Strongly Agree Agree Disagree Strongly Disagree
8. Physical restraint has therapeutic value for children. Strongly Agree Agree Disagree
 Strongly Disagree
9. Physical restraint decreases violent behavior of students in schools. Strongly Agree
 Agree Disagree Strongly Disagree
10. Physical restraint tends to be overused in school. Strongly Agree Agree Disagree
 Strongly Disagree

APPENDIX B

Educational Leadership and Behavioral Interventions

Based on

“Administrative Activities and Behavioral Interventions for Students with Behavior Disorders”

Directions – Please rate each of the following statements according to how much you agree or disagree with them. (please check only the most appropriate response and please answer all questions). Completing this survey is your consent to participate in this voluntary and confidential study.

Definition: physical restraint – any incident reported to administration as a physical restraint in which a student is immobilized by a staff member (do not include medical restraint)

Demographics:

Type of school: public or private

Grade levels served (identify all that apply): K, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, post grad

Student demographics: Ethnicity percents and gender percents

Location of school: rural or urban or other(please describe)

Title of administrator: headmaster/mistress or principal or assistant principal or administrator or director or other (please describe)

Gender: M or F or Prefer not to say

Years of experience as an administrator: 0-5 or 6-10 or 11-15 or 16+

Total number of students in school:

(not required to have an answer) Name of school:

*Total number of physical restraints during the (insert dates) school year: _____

*Total number of students physically restrained during the (insert dates) school year (this may differ from the number above if one student is physically restrained multiple times): _____

* are required answers

Please answer all of the following questions:

1. Physical restraint is needed to keep schools safe and orderly. Strongly Agree Agree Disagree Strongly Disagree
2. The use of physical restraint increases safety in schools. Strongly Agree Agree Disagree Strongly Disagree
3. Physical restraint constitutes punishment. Strongly Agree Agree Disagree Strongly Disagree
4. Staff members should be adequately trained in the use of physical restraint. Strongly Agree Agree Disagree Strongly Disagree
5. Staff members know how to recognize potentially violent situations. Strongly Agree Agree Disagree Strongly Disagree
6. Staff members know how to de-escalate potentially violent situations and employ least restrictive measures prior to resorting to physical restraint. Strongly Agree Agree Disagree Strongly Disagree
7. There is sufficient research supporting the use of physical restraint to decrease violent behavior in children. Strongly Agree Agree Disagree Strongly Disagree
8. Physical restraint has therapeutic value for children. Strongly Agree Agree Disagree Strongly Disagree
9. Physical restraint decreases violent behavior of students in schools. Strongly Agree Agree Disagree Strongly Disagree
10. Physical restraint tends to be overused in school. Strongly Agree Agree Disagree Strongly Disagree

11. Physical restraint helps student to de-escalate effectively. ___ Strongly Agree ___ Agree
___ Disagree ___ Strongly Disagree
12. Physical restraint should not be used on any students with disabilities in schools. ___ Strongly
Agree ___ Agree ___ Disagree ___ Strongly Disagree
13. Physical restraint should be used on all students with disabilities in schools. ___ Strongly
Agree ___ Agree ___ Disagree ___ Strongly Disagree
14. Physical restraint is needed for some students to behave. ___ Strongly Agree ___ Agree
___ Disagree ___ Strongly Disagree
15. Physical restraint should never be an option. ___ Strongly Agree ___ Agree ___ Disagree
___ Strongly Disagree
16. There is sufficient research opposing the use of physical restraints in schools. ___ Strongly
Agree ___ Agree ___ Disagree ___ Strongly Disagree
17. Physical restraint in schools is needed to maintain order. ___ Strongly Agree ___ Agree
___ Disagree ___ Strongly Disagree
18. Physical restraint can make student behaviors work. ___ Strongly Agree ___ Agree
___ Disagree ___ Strongly Disagree
19. Students need physical restraints even if they don't realize it. ___ Strongly Agree ___ Agree
___ Disagree ___ Strongly Disagree
20. Physical restraint can cause trauma to staff. ___ Strongly Agree ___ Agree ___ Disagree
___ Strongly Disagree
21. Physical restraint makes schools more effective. ___ Strongly Agree ___ Agree ___ Disagree
___ Strongly Disagree
22. Physical restraint creates a better learning environment for students. ___ Strongly Agree
___ Agree ___ Disagree ___ Strongly Disagree
23. Physical restraint can help students change their behavior. ___ Strongly Agree ___ Agree
___ Disagree ___ Strongly Disagree

24. Physical restraint is not an effective intervention to modify behavior. ___ Strongly Agree
___ Agree ___ Disagree ___ Strongly Disagree

Optional open-ended questions:

Please provide a description of your thoughts on the use of physical restraint in the school setting.

APPENDIX C

This appendix shows the questions organized by those in favor of physical restraint and questions that did not favor physical restraint from the survey given to participants. Three questions were not used in the overall sum of data including question 4, question 5, and question 6.

Questions that Positively Represent the Use Physical Restraint

1. Physical restraint is needed to keep schools safe and orderly.
2. The use of physical restraint increases safety in schools.
7. There is sufficient research supporting the use of physical restraint to decrease violent behavior in children.
8. Physical restraint has therapeutic value for children.
9. Physical restraint decreases violent behavior of students in schools.
11. Physical restraint helps student to de-escalate effectively.
13. Physical restraint should be used on all students with disabilities in schools.
14. Physical restraint is needed for some students to behave.
17. Physical restraint in schools is needed to maintain order.
18. Physical restraint can make student behaviors work.
19. Students need physical restraints even if they don't realize it.
21. Physical restraint makes schools more effective.
22. Physical restraint creates a better learning environment for students.
23. Physical restraint can help students change their behavior.

Questions that Negatively Represent the Use of Physical Restraint

3. Physical restraint constitutes punishment.
10. Physical restraint tends to be overused in school.
12. Physical restraint should not be used on any students with disabilities in schools.
15. Physical restraint should never be an option.
16. There is sufficient research opposing the use of physical restraints in schools.
20. Physical restraint can cause trauma to staff.
24. Physical restraint is not an effective intervention to modify behavior.

APPENDIX D**Evidence of Permission to Use Instrument**

Re: Dissertation_Question about survey created regarding use of physical restraints

Julie Fogt [REDACTED]

Mon 11/12/2018 3:06 PM

To: Ulmer, Sarah [REDACTED]

 2 attachments (313 KB)

fogt george kern white george.pdf; Fogt dissertation restraint questions.pdf;

Dear Sarah,

Thank you for your email and inquiry. I am happy to share with you the survey that I developed for my dissertation (see attached). Regarding psychometric properties, I am providing you with information from my dissertation for your reference (see below).

I wish you the very best in completing your dissertation and would love to read your study upon its completion. I am also available by phone if you would like to discuss this any further.

Kind regards,
Julie Fogt

APPENDIX E

IRB Approval Letter

Consent

Title of the Project: Investigating How the Attitude of School Leaders Predicts The Number of Physical Restraints

Principal Investigator: Sarah Ulmer, Ed.S., Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must be a school leader or administrator at any school level (i.e. Principal, Assistant/Vice Principal, Executive Director, Headmaster, Headmistress, or another individual that directly affects the processes within the school setting) in a school that has used or is currently using physical restraint in a public or private school in Virginia. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why is it being done?

The purpose of the study is to determine if the attitudes of school leaders regarding the use of physical restraint in the K-12 school setting (public or private) can predict the number of reported physical restraints that occur within each school.

What will happen if you take part in this study?

If you agree to be in this study, I would ask you to do the following thing:

1. Complete and submit an online survey with an estimated completion time between 10-30 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include an increased knowledge on the effects of leader opinions on the school environment, increased knowledge relating to the use of physical restraint in schools, and expanded research from current data on this topic.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

In order to protect privacy of participants and the confidentiality of the data, participant responses will be anonymous unless participants volunteer information within their survey

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Approved on 7-23-2020

response(s) that could identify them. Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Sarah Ulmer. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Ackeman, at [REDACTED].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. If you have any questions about the study later, you can contact the researcher using the information provided above.