

St. John Fisher College

Fisher Digital Publications

Education Doctoral

Ralph C. Wilson, Jr. School of Education

12-2020

Medical Marijuana in Public Schools: A Narrative Study of Parents' Experiences with Policy Implementation

Donise Robinson Dr.
read2achieve@gmail.com

Follow this and additional works at: https://fisherpub.sjfc.edu/education_etd



Part of the Education Commons

[How has open access to Fisher Digital Publications benefited you?](#)

Recommended Citation

Robinson, Donise Dr., "Medical Marijuana in Public Schools: A Narrative Study of Parents' Experiences with Policy Implementation" (2020). *Education Doctoral*. Paper 481.

Please note that the Recommended Citation provides general citation information and may not be appropriate for your discipline. To receive help in creating a citation based on your discipline, please visit <http://libguides.sjfc.edu/citations>.

This document is posted at https://fisherpub.sjfc.edu/education_etd/481 and is brought to you for free and open access by Fisher Digital Publications at St. John Fisher College. For more information, please contact fisherpub@sjfc.edu.

Medical Marijuana in Public Schools: A Narrative Study of Parents' Experiences with Policy Implementation

Abstract

Parents of children with conditions such as epilepsy, cancer, and attention deficit hyperactivity disorder (ADHD) can choose medical marijuana (MM) as a treatment plan for their children. The purpose of this narrative study is to describe parents' experiences when implementing medical marijuana treatment plans in K-12 schools in New Jersey, Maryland, and Colorado. This study addressed the success and challenges parents faced with the chosen treatment plan. Many schools grapple with allowing the administration of MM to students because of the conflict between federal and state laws. This study identifies the experiences of parents of children prescribed MM as they navigate their chosen treatment plan. This study highlights the positive experiences they have encountered and identifies the barriers parents faced in the implementation of their plans. This study describes the reasons for the selection of a MM treatment plan, the legislation required to implement a school board policy, and the importance of a network of parents who served as a resource to assist with the implementation policy of MM in their child's schools. The data derived from personal interviews with five parents who chose medical marijuana for their children's treatment plans. The data identified themes of unsuccessful outcomes with pharmaceutical medicines, parents learning from other parents, school performance, in addition to benefits and challenges of MM policy.

Document Type

Dissertation

Degree Name

Doctor of Education (EdD)

Department

Executive Leadership

First Supervisor

Dr. Anthony P Chiarlitti

Second Supervisor

Dr. Ellen Bergman

Subject Categories

Education

Medical Marijuana in Public Schools: A Narrative Study of Parents' Experiences with
Policy Implementation

By

Donise Robinson

Submitted in partial fulfillment.
of the requirements for the degree
Ed.D. in Executive Leadership

Supervised by

Dr. Anthony P Chiarlitti

Committee Member

Dr. Ellen Bergman

Ralph C. Wilson, Jr. School of Education

St. John Fisher College

December 2020

Copyright by
Donise Robinson
2020

Dedication

Education is our passport to the future, for tomorrow belongs to the people who prepare for it today. Honor to God and his grace for allowing me the courage to begin this academic journey and the confidence to complete the journey. This dissertation is dedicated to my amazing children, J'Lyn Kori McFall, Jason Kyle McFall, and Jhordan Kennedy McFall. My three reasons for pursuing this degree is to model academic excellence for them. All three of my children have shown me patience, unconditional love, and support during my doctoral journey. Their constant encouragement and support inspired me to complete the journey. This dissertation is in loving memory of my ancestors Robert Robinson (dad) Bernice Evans (great grandmother) and Helen Verdier (Aunt) who paved the way before me. My mother Doretha Johnson and grandmother Ruby June Johnson whose love, nurture, and guidance shaped me into the human I am today.

I acknowledge my committee chair, Dr. W. Jeff Wallis for helping me almost complete my study, and my newly assigned chair Dr. Anthony P. Chiarlitti for stepping in to help me achieve my goal of becoming a doctor. I would like to thank my committee member Dr. Ellen Bergman for her patience and continuous support throughout this entire process. They were a supportive team who encouraged me to present my best work.

Thank you to my birth sisters Nikki Robinson Darby, Dawn Burnside, and chosen sisters Nakia James Jenkins and Gisele Shorter who were constant resources and

inspiration to me during the journey. I want to thank my cousins, especially Latarsha Cornish who stepped in and stepped up when I need support with caring for my children, while I was working on my dissertation. This dissertation is dedicated to all parents who are raising children with disabilities. I admire your strength and persistence. Thank you to all who encouraged me with a kind word, smile, or hug to help me complete the journey.

Finally thank you to Cohort 10 of St. John Fisher College Iona campus for motivation and a lifetime of memories, with a special thanks to my doctoral sisters and team Destined 4 Greatness which includes Dr. Sandra Dance Weaver, Dr. Sasha Marie Robinson, and Tyron Pope. In remembrance of my D4G team member Diane Munroe-Morris.

Biographical Sketch

Donise N. Robinson, Harlem NY native- is an academic leader working in public schools across New York State. Ms. Robinson has an unwavering belief all students can learn. She is a champion for students with disabilities and builds strong and lasting parent and community relationships. Her passion and persistence to ensure equity through curriculum and instruction is what drives her to be relentless in codifying teacher preparation programs. The belief was sparked when she attended Syracuse University as an undergraduate, earning a bachelor's degree in Elementary and Special Education. Her studies continued at Mercy College with a master's degree in reading. She also received a degree in Education Leadership and Administration from Long Island University. She began studying for her education doctorate (Ed. D) in executive leadership in the summer of 2018. She pursued her research exploring the perceptions of parents who have chosen medical marijuana as a treatment plan experiences with implementation of a medical marijuana policy in K-12 schools. She worked under the direction of Dr. W. Jeff Wallis, Dr. Anthony P. Chiaritti, and Dr. Ellen Bergman.

Abstract

Parents of children with conditions such as epilepsy, cancer, and attention deficit hyperactivity disorder (ADHD) can choose medical marijuana (MM) as a treatment plan for their children. The purpose of this narrative study is to describe parents' experiences when implementing medical marijuana treatment plans in K-12 schools in New Jersey, Maryland, and Colorado. This study addressed the success and challenges parents faced with the chosen treatment plan. Many schools grapple with allowing the administration of MM to students because of the conflict between federal and state laws. This study identifies the experiences of parents of children prescribed MM as they navigate their chosen treatment plan. This study highlights the positive experiences they have encountered and identifies the barriers parents faced in the implementation of their plans. This study describes the reasons for the selection of a MM treatment plan, the legislation required to implement a school board policy, and the importance of a network of parents who served as a resource to assist with the implementation policy of MM in their child's schools.

The data derived from personal interviews with five parents who chose medical marijuana for their children's treatment plans. The data identified themes of unsuccessful outcomes with pharmaceutical medicines, parents learning from other parents, school performance, in addition to benefits and challenges of MM policy.

Table of Contents

Dedication	iii
Biographical Sketch	v
Abstract	vi
Table of Contents	vii
List of Tables	ix
Chapter 1: Introduction	1
Problem Statement	9
Theoretical Rationale	9
Statement of Purpose	11
Research Questions	12
Significance of the Study	12
Definitions of Terms	13
Chapter Summary	14
Chapter 2: Review of the Literature.....	16
Introduction and Purpose	16
Review of Literature	18
Benefits of Medical Marijuana	18
Medical Marijuana Treatment for Epilepsy and ADHD.....	21
Blurred Lines - Medical Marijuana versus. Recreational Marijuana.....	23
Medical Professionals and Medical Marijuana.....	26

Medical Marijuana Uses for Children.....	29
Chapter Summary	31
Chapter 3: Research Design Methodology	33
Research Context	35
Research Participants	35
Research Design.....	36
Instruments Used in Data Collection	38
Procedures for Data Collection and Analysis	39
Summary.....	40
Chapter 4: Results	42
Interview Questions	44
Research Participants	46
Data Analysis and Findings	47
Summary of Results	76
Chapter 5: Discussion	78
Introduction.....	78
Implications of Findings	83
Limitations	88
Recommendations.....	90
References.....	96
Appendix A.....	102
Appendix B	105
Appendix C	108

List of Tables

Item	Title	Page
Table 4.1	Interview Questions Aligned with Research Questions	42
Table 4.2	Experiences with Policy Implementation	46
Table 4.3	Experiences with Implementation Policy	47
Table 4.4	Codes/Categories/Themes- Academic Impact of Medical Marijuana Policy	56
Table 4.5	Academic Impact of Medical Marijuana Policy/Participants' Responses	57
Table 4.6	Codes, Categories, Themes- Qualifying Characteristics- Social and Emotional Effects	63
Table 4.7	Frequency Chart of Participant Responses- Implementation Policy on Social and Emotional Development	64

Chapter 1: Introduction

Parents of students diagnosed with medical conditions such as attention deficit hyperactivity disorder and epilepsy are seeking medical marijuana as a treatment option (Ryan et al., 2020). Their choice to have medical marijuana administered in public schools has created difficulties for state and federal lawmakers, students, school districts, and parents/guardians (Terrell, 2016). Thompson (2015) posited that medical marijuana benefits the lives of many people who suffer from life changing illnesses, such as multiple sclerosis (MS), epilepsy, autism, and glaucoma. In most cases, medical marijuana is prescribed and used in the form of a plant and in an oil (cannabis oil), that the patient can ingest either through food or drink. While medical marijuana has been legal in some states for almost two decades, it is still illegal under federal law (Thompson, 2015). Parents' demands for alternate medications are forcing school districts and lawmakers across the United States to tackle the issue of administering medical marijuana during the school day (Jacobson, 2018).

After years of attempting to keep marijuana out of schools, educators across the country now must address the issue of administering prescription medical marijuana to students (Terrell, 2016). When public school nurses administer medical marijuana to students, the schools are violating federal law—even though marijuana may be legal for medicinal purposes under state laws (DeNisco, 2016). Parents' who choose to use medical marijuana are placed in the middle of the federal versus state (“tug of war.”) When states legalize medical marijuana, it puts schools in a position to have to choose

between following the federal law and the state law. Although medical marijuana is legal in 33 states and the District of Columbia, the federal government regulates drugs through the Controlled Substances Act (CSA), which does not recognize the difference between medical and recreational use of cannabis. Under federal law, cannabis is treated like every other controlled substance, such as cocaine and heroin. The federal government places every controlled substance in a schedule, in principle according to its relative potential for abuse and medicinal value. Under the CSA, cannabis is classified as a Schedule I drug, which means that the federal government views it as highly addictive with no medical value. Doctors may not "prescribe" cannabis for medical use under federal law, though they can "recommend" its use under the First Amendment (Gregorio, 2014).

At least seven states have enacted laws or regulations that allow students to use medical marijuana on school grounds, knowing it could cause a potential showdown with the federal government and could risk their federal funding. So far, the federal government has not penalized any of the seven states. New Jersey, Maryland, Delaware, and Colorado permit parents to give their child non-smokable medicinal marijuana products at school. This summer, Colorado expanded its law to allow school staff to administer the medication. Washington and Florida allow school districts to decide for themselves whether to allow the drug on campuses. And Maine expanded state regulations to permit medical marijuana use at school, according to the Education Commission of the States (Railey, 2016). California's legislation would let school boards decide whether to allow medical cannabis at schools if a child has a doctor's note (Norwood, 2018).

The disconnect between state and federal law poses inconsistent implementation policies and practices on the school level. The schools want to adhere to the Drug Free Schools Act (DFSA) a federal law which states drugs are not allowed on school grounds (Moore, 2018). This act puts school officials, and anyone who administers medical marijuana in jeopardy of losing their credentials if a medical marijuana policy is implemented. This act is a federal law and supersedes state law, however states have created laws for medical marijuana use. The parents and local officials who have successfully lobbied for laws that allow medical marijuana use in their states continue to face legal battles because of the DFSA.

Nationwide, some families have been negatively affected by their schools' refusal to allow staff to administer prescribed medical marijuana to students (Jacobson, 2018). As a result of this refusal, students are prohibited from receiving their prescribed medication while receiving a public education. Schools have implemented policies that require students to go home in the middle of the school day to take their medication, meaning, these students often complete only a half day at school. When students are denied their prescribed medication, or they must leave in the middle of the school day to take their medication, their daily routine is disrupted, and their academics and social-emotional development suffer (DeNisco, 2016).

Medical marijuana policy is rapidly evolving in the United States and elsewhere. Marijuana sales are legalized and regulated in some jurisdictions, and the use of the drug for medicinal purposes is permitted in many others. Amidst this political change, patients and families are increasingly asking whether medical marijuana and its derivatives may have therapeutic use for several conditions, such as epilepsy and ADHD, including

developmental and behavioral disorders in children and adolescents (Hadland, Knight, & Harris, 2015).

Marijuana is a plant that is also referred to as cannabis. It is composed of up to 80 different chemical compounds. The two most researched compounds are tetrahydrocannabinol (THC) and cannabidiol (CBD). THC and CBD have an immediate effect on the brain. They connect with receptors of the brain and influence cognition, memory, motor movements, and pain perceptions (Richards, Smith, & Moulin, 2017). THC is the main psychoactive chemical in marijuana, and it continues to be classified as a drug. It affects the body in several ways. THC influences body temperature, pulse rate, anxiety, sedation, reduction of pain, and short-term memory (Greener, 2018). It is also the chemical that creates a euphoric high that is experienced by recreational users. CBD has physiologic effects that impact mood, memory, sleep, and appetite (Gonzalez & Swanson, 2012). Project CBD (2019) posits that “CBD is a naturally occurring compound found in the resinous flower of cannabis Project CBD 2019 (p. 1). “A safe, non-addictive substance, CBD is one of more than a hundred ‘Phyto cannabinoids,’ that are unique to cannabis and endow the plant with its robust therapeutic profile” (p. 1). Greener (2018) suggested that medical marijuana has been used since 1500 BC. He explained that ancient Egyptians used marijuana-like concoctions to treat numerous diseases and symptoms. Greener (2018) also documented that cannabinol was used as an enema and anti-inflammatory ointment and mixed with celery, as a topical treatment for eye disease. Healers across much of the ancient world have found medicinal value in marijuana (Greener, 2018). Persians caring for the sick over 2,700 years ago could choose from more than 10,000 medicinal plants to cure sickness (Gonzalez & Swanson,

2012). Research suggests marijuana has been healing illnesses for centuries. The benefits of the natural plant encouraged medical professionals to begin exploring its capabilities for treating and possibly healing conditions such as epilepsy, cancer, MS, and migraines (Greener, 2018). Many parents of children with epilepsy and attention deficit hyperactivity disorder have explored MM and CBD treatments. Children with Dravet syndrome (a rare form of epilepsy in children) have benefitted from use of marijuana (Wiederman, 2017).

For purposes of this study, the term MM will refer to any part of the marijuana plant that is used to alleviate a health problem. It will also be used to refer to topical oils and products used as a treatment for illness. The literature refers to medical marijuana as a treatment that can be ingested and for topical use. Participants who were interviewed for the study shared during the interview process that medical cannabis is the term they prefer to use when referring to their child's treatment. THC has been the plant's most frequently researched chemical, and it is believed to affect the human body in several ways. It has been documented that THC assists with pain reduction, inflammation reduction, and improving problems in muscle control (Thompson, 2015). Additional research conducted by Gonzalez and Swanson (2012) stated that THC can increase pulse rates, perceptions of time, and body temperature.

Medical marijuana can be ingested and used in a vapor form. It can be inhaled or smoked, which is reported to be the fastest route for immediate relief. It is also prescribed in the form of a cream or an oil for topical application. This method takes 2-3 hours to become absorbed by the bloodstream and have an effect (Richards et al., 2017).

Consumers use recreational marijuana, which is laden with CBD oil. The recreational users consume marijuana in the form of vapor, topical oil, and edibles such as brownies, gummy candy, cake, and hard candy. The allure of recreational marijuana and its consumption make it appealing to many youth (Richards et al., 2017). Recreational marijuana creates a barrier when trying to explain the benefits of medical marijuana, although both contain CBD oil, they have quite different uses and effects on brain function. Medical marijuana is currently used for pain reduction, Alzheimer's disease, stroke, MS, and Parkinson's disease (Bridgeman & Abazia, 2018). It is used for pain reduction in conditions related to rheumatoid arthritis and cancer. In addition to epilepsy and ADHD, it has been known to support anti-tumor effects, treatment for schizophrenia, stress disorders, and seizures (Gonzalez & Swanson, 2012).

The legalization of MM has been at the forefront of health and policy discussions for several years in the United States (DeNisco, 2016). Morning news shows with political pundits, radio commentaries featuring medical experts, and newspaper articles with op-eds from esteemed health professionals, have each captured a different perspective on the issue (Gupta, 2014). Some proponents of medical marijuana suggest that the drug can assist those with chronic conditions (Gonzalez & Swanson, 2012). Naysayers argue that medical marijuana can have harmful social and medical effects (Gupta, 2013).

Medical professionals have raised the possibility that students could benefit from the assistance of MM to stabilize chronic conditions and increase performance in school (Mouhamed et al., 2018). However, federal drug prohibition laws do not align with state MM laws governing administration in public schools. As of this writing, federal law bans

MM, while various states have passed legislation allowing the administration of MM in non-vapor form on school grounds. Parameters for the use of MM in the sanctioned states varies greatly from school to school and district to district. Consequently, school district administrators are debating whether to risk violating federal law to allow state-legalized marijuana on campuses to assist students (Terrell, 2016).

Epilepsy is a common neurological disease that affects one in 26 people at any point in their lifetime. Today more than three million Americans, including almost 400,000 children, live with epilepsy, with one-third living with treatment-resistant seizures (Brooks-Kayal, 2021). An estimate of 100,000 U.S. children have intractable epilepsy—a treatment-resistant category of the disease characterized by uncontrolled seizures—and for some of their parents, MM has gained a reputation as a wonder drug for treatment. Currently individuals who sell Charlotte’s Web, a strain of MM used for epilepsy treatment—say they have a waiting list of more than 12,000 families, with many relocating to the state of Colorado to access the product (Pickert, 2020).

The Individuals with Disability Education Act (IDEA) (2004) mandates that all children with disabilities receive a free and appropriate public education in the least-restrictive environment in American schools. Districts are required to provide the accommodations needed for students to benefit from instruction. Thus, the IDEA appears to leave space for the administration of MM on school campuses to students who could benefit from the drug (Moore, 2018). However, the federal government also bans the possession or use of illegal drugs, including state-legalized MM, within 1,000 feet of any school. Any school district that chooses to allow MM treatment in school is violating this

law, which could potentially jeopardize federal funding and certification as a public school (Moore, 2018).

Since 1999, 33 states and the District of Columbia, have legalized medical marijuana (ProCon.org, 2019). Maine became the first state to require all school districts to create a policy on the use of MM (Maine State Legislature, 2019). In 2016, Colorado, Maryland, and New Jersey passed laws permitting certain students to receive MM treatment in K-12 schools (DeNisco, 2016). Laws in the state of Washington do not require schools to permit on-site administration of MM but allow schools to choose (Railey, 2016). New York State has a proposal presented by Governor Andrew Cuomo's administration, that would require the state health department to develop guidelines giving schools a way to possess, secure, and administer medical marijuana products under limited circumstances (New York State Department of Health [NYSDOH], 2019). These mixed responses demonstrate the disarray across the country regarding medical marijuana.

Research and media reports have documented the positive effects of medical marijuana for various subsets of the population including those who suffer from post-traumatic stress disorder (PTSD) and anxiety disorders (Mouhamed et al., 2018). Chemotherapy and war-related conditions can also be treated with MM (Tambaro & Bortolato, 2012). This study of parents' perspectives will explore the implementation of MM treatment plans in public schools.

Problem Statement

Healthcare professionals sometimes prescribe MM to students who have neurological disabilities (Moore, 2018). Incongruous state and federal regulations have complicated, and at times, prevented the administration of medical marijuana to students in K-12 public school settings (Railey, 2016). This lack of access can potentially lead to difficult and nonproductive learning environments for students who are prescribed the medication (Terrasi & de Galarce, 2017).

Parents who have selected MM as the treatment for their children diagnosed with epilepsy and/or ADHD, have faced barriers and challenges when the treatment must be administered during the school day. Children who have been diagnosed with these conditions have benefitted from the use of MM (Wiederman, 2017). This study explored the implementation of MM policies in New Jersey, Maryland, and Colorado school districts. It described the implementation of current medical marijuana policies in K-12 schools and the impact on parents' perspectives of their children's ability to achieve their full academic and social/emotional potential. The experiences of parents are an important part of the conversation needed to create effective policy (Burke & Goldman, 2015). Policy makers are often concerned with the views and voices of parents (Burke & Goldman, 2015). Parent advocacy is also essential for the school/home partnership (Smith, 2014). Parents' selection of alternative treatments for their children offers another avenue to foster the process of public school/home collaboration (Smith, 2014).

Theoretical Rationale

Implementation theory was used to guide this research. Implementation science examines theoretical approaches to provide better understanding and explanation of how

and why implementation succeeds or fails (Nilsen, 2015). Implementation science is defined as the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice to improve the quality and effectiveness of health services and care (Nilsen, 2015). The terms knowledge translation, knowledge exchange, knowledge transfer, knowledge integration, and research utilization are used to describe the overlapping and interrelated research of putting various forms of knowledge, including research, to use with practice (Nilsen, 2015).

Implementation is part of a diffusion-dissemination-implementation continuum: diffusion is the passive, untargeted, and unplanned spread of new practices; “dissemination is the active spread of new practices to the target audience, using planned strategies; and implementation is the process of putting to use or integrating new practices within a setting” (Nilsen, 2015, p. 216). Theoretical approaches used in implementation science have three overarching aims: describing and/or guiding the process of translating research into practice (process models); understanding and/or explaining what influences implementation outcomes (determinant frameworks, classic theories, implementation theories); and evaluating implementation (evaluation frameworks) (Nilsen, 2015).

Implementation science theory is implementation research that attempts to solve a wide range of implementation problems; it has its origins in several disciplines and research traditions (Nilsen, 2015). Implementation research can consider any aspect of implementation, including the factors affecting the implementation, the processes of the implementation, and the results of the implementation, which also can include how to

introduce potential solutions into a system or how to promote large-scale use and sustainability (Nilsen, 2015). The intent for using implementation theory was to understand what, why, and how the MM policies in K-12 public schools were successful and how they could be improved.

Statement of Purpose

The purpose of this narrative study is to examine parents' experiences with the implementation of MM policies in K-12 public schools in New Jersey, Maryland, and Colorado. It is important to give a voice to parents who choose this method of treatment. The parents' perspectives and experiences may provide a blueprint for school districts when developing a policy to allow MM administration on school grounds. This study focused on the ways schools have supported the parents' decision to treat their children with MM, the parents' understanding of the impact of the policy on their children's academic and social progress, and how the health of these children has been affected by the schools' implementation policies. The information gained from this study can be used to inform policy development and school programs.

Burke and Goldman (2015) suggested the role many parents have assumed includes being an advocate, cheerleader, and champion for their children's academic and social success. Parents seeking a policy for a MM treatment plan in K-12 schools is an example of advocacy. Potentially it could lead to students having better school performance and lead healthier lives. (Moore, 2018). However, these students may not be afforded such opportunities due to state and federal law discrepancies regarding the use and distribution of MM (DeNisco, 2016).

Research Questions

The research questions to be answered by this study are:

1. Given current medical marijuana policies, how do parents describe their experiences implementing their children's treatment plans?
2. How does medical marijuana policy impact parents' perceptions of their child's performance in school?
3. How do parents describe the implementation of existing medical marijuana policy on their children's social and emotional development?

Significance of the Study

The significance of this study is the data it provides to inform MM policy decisions both at the state and local school board level. The partnership between home and school is crucial to student success (DeNisco, 2016). The descriptive experiences of parents provide information to school districts nationwide. This research also provides insight into how parents and schools may help students who are treated with MM to maximize their academic, social, and emotional outcomes in school.

This research increases information and knowledge by including the perspective of parents whose children are identified as students with disabilities and use a treatment plan that includes MM. School districts across the country may finally have a template to use that may enable students to have greater access to K-12 instruction and school sponsored recreational activities by developing policies that facilitate implementation of MM treatment plans.

Definitions of Terms

The following terms are defined that will be used in this study:

Attention Deficit Hyperactivity Disorder – Five or more symptoms of inattention and symptoms of hyperactivity/ impulsivity must have persisted for 6 months to a degree that is inconsistent with the developmental level and negatively impacts social and academic/ occupational activities (CDC.org, 2018)

Cannabis – a plant that is also referred to as marijuana (CDC.org, 2018).

Cannabidiol (CBD) – a compound found in marijuana/cannabis (CDC.org, 2018).

Evidence-Based Practices – an interdisciplinary approach to clinical practice that has been gaining ground following its formal introduction in 1992. It started in the medicine field and spread to the allied health professions, educational fields, and other fields (Nilsen, 2017).

Marijuana – a plant that is also referred to as cannabis (CDC.org, 2018).

Medical Marijuana (MM) – cannabis that is used for medicinal purposes, comprising up to 80 chemical compounds. The two most researched compounds are THC and CBD (CDC.org, 2018).

Medical Marijuana Laws – legislation involving medical marijuana/cannabis for research studies (Newman, 2018).

Primary Care Physician (PCP) - a person who provides first contact for a person with an undiagnosed health concerns and provides continuing care of varied medical conditions (Hopfer, 2014).

Tetrahydrocannabinol (THC) – a compound found in marijuana/cannabis (CDC.org, 2018).

Chapter Summary

The potential positive outcomes achieved by medical marijuana treatment have encouraged parents to choose MM as the treatment plan for children diagnosed with epilepsy and attention deficit hyperactivity disorder. These treatment plans for students in K-12 schools require midday administration and have caused debate in the educational systems in New Jersey (Railey, 2016). The use of MM has been introduced into legislation and policy in 33 states and the District of Columbia (DeNisco, 2016). Parents of students have begun to administer MM to their children as an alternative to traditional medicine (Moore, 2018). However, students in K-12 schools have faced barriers regarding the administration of MM on school grounds (Railey, 2016). This study will use a qualitative narrative study approach to conduct interviews with parents of children who are treated with MM. It strives to describe their experiences with the administration of MM in K-12 schools in New Jersey, Maryland, and Colorado. The study will inform K-12 schools about best practices for the development and implementation of MM policies. The hope is that these policies will create an academic environment where all students can aspire to reach their maximum learning potential and feel included in their school communities.

Chapter 2 reviews the literature on MM including research into medical marijuana's positive and negative effects, implications of medical marijuana use in adolescents, and the barriers to the use of MM in schools. Chapter 3 describes the research methodology for this study. Chapter 4 provides the findings of the study and

Chapter 5 discusses implications of the findings along with recommendations for the future.

Chapter 2: Review of the Literature

Introduction and Purpose

Thompson (2015) opined that the use of MM benefits the lives of many people who suffer from life challenging illnesses and conditions such as MS, epilepsy, autism, and glaucoma. Parents are choosing treatment plans that include the administration of medical marijuana to their children in a non-vapor form (Thompson, 2015). Parents are requesting that school districts support their decisions by developing implementation policies that permit the administration of MM in K-12 schools (Railey, 2016). Many school districts grapple with the idea of administering MM because it is classified as a Type 1 drug on the federal level, and therefore cannot be administered within schools. School districts risk sanctions including the loss of federal funding if they do not adhere to federal laws (DeNisco, 2016). As states continue to pass legislation to legalize MM, parents are trapped in a political tug of war between federal and state laws (DeNisco, 2016). In this study, the parent participants shared their experiences with the implementation of MM policies in the schools attended by their children. The literature in this section illustrates the perspectives and the pros and cons of the use of MM.

The use of medical marijuana as part of the treatment plan for students who attend public schools has created difficulties for state and federal lawmakers, students, school districts, and parents/guardians (DeNisco, 2016). Greener (2018) posited that some parents' choice to select MM as a treatment plan for their children may benefit the lives of students who suffer from life changing illnesses and conditions such as MS, epilepsy,

autism, and glaucoma. In most cases, medical marijuana is used in the form of an oil (cannabis oil), which can be ingested either through food or drink. While medical marijuana has been legal in some states for almost two decades, it is still illegal under federal law. Parents' demands for alternate medications are forcing school districts and lawmakers across the United States to tackle the issues regarding the administration of medical marijuana (Jacobson, 2018). After years of attempting to keep marijuana out of schools, educators across the country now must address the problem of administering medical marijuana to students. When public school nurses administer medical marijuana to students, the schools are violating federal law—even though marijuana use may be legal for medicinal purposes under state law (Hakalovic, 2016). Each state has outlined guidelines for use of medical marijuana. Currently although it is prescribed by a doctor, the dosage is only a recommendation. This recommended dosage presents a problem for school nurses. In some states, nurses can only administer medicines with prescribed dosage (Jacobson, 2018).

Nationwide, families have been negatively affected by some schools' refusal to allow their staff to administer marijuana to students (DeNisco, 2016). As a result, students may be prohibited from receiving their medication while attending public schools (Moore, 2018). Some districts have implemented policies that require students to go home in the middle of the day to take their medication. These students often complete only a half day at school (Hakalovic, 2016). When students are denied their medication or they must leave in the middle of the school day to take their medication, their daily routine is disrupted and academic, social, and emotional needs are not addressed (Bellano, 2015).

Review of Literature

The reality of using medical marijuana as an effective treatment is supported by research. This literature review begins by examining the illnesses that benefit from medical marijuana use. Next, the literature review illustrates the use of medical marijuana as a treatment for children with epilepsy and attention deficit hyperactivity disorder. It also highlights medical professionals' experiences with medical marijuana. It concludes with the positive effects and the challenges associated with medical marijuana use for children.

Benefits of Medical Marijuana

Parents seeking alternative methods for the treatment of their children's chronic conditions may choose medical marijuana for its documented benefits (Grinspoon, 2018). Parents are looking to medical marijuana as a treatment (Jacobson, 2018). According to Grinspoon (2018), "medical marijuana is proven to ease the pain of MS and nerve pain in general, which is quite effective for chronic pain that plagues many Americans, especially at an early age" (p. 2). Grinspoon (2018) stated medical marijuana is safer than opiates and patients claim that marijuana allows them to resume their previous activities without feeling completely out of it and disengaged. The components of medical marijuana are said to work as a muscle relaxant with some proponents of the drug believing it can lessen tremors in Parkinson's disease (Thompson, 2015). The use of medical marijuana has been explored in treatment of veterans who are returning from combat zones (Mammoser, 2017). Many veterans and their therapists reported drastic improvement (Mammoser, 2017). Grinspoon (2018) reported the use of medical

marijuana to help patients suffering from pain and wasting syndrome associated with HIV, as well as it being effective for irritable bowel syndrome and Crohn's disease. The Epilepsy Foundation states MM could help control seizures due to epilepsy disorders (Nielsen, 2017).

Parents with children who have seizures and various forms of epilepsy are exploring medical marijuana as a cure. In a study conducted by Devinsky et al. (2016) 368 patients with Lennox-Gastaut syndrome (LGS), a severe condition characterized by seizures (epilepsy), participated in one of two randomized controlled trials that evaluated the long-term efficacy of MM. Patients were given a pharmaceutical formulation of MM in an oral solution form over a 38-week period. The results indicated patients experienced diarrhea at moderate to severe levels at 23% to 43%. The patients also experienced a reduction in seizure frequency from 60% to 48% monthly. The findings reported a decrease in seizure frequency; however, they also reported an increase in diarrhea. The study suggested additional trials to expand research.

The benefits of the drug are also being explored to treat chronic pain and mood disorders. Habib and Artul (2018) conducted a study that identified participants with fibromyalgia (a chronic pain syndrome, characterized by chronic musculoskeletal pain, fatigue, and mood disturbances). This open study included 26 patients who were given a pre- and post-impact questionnaire regarding the MM treatment. All patients reported a significant improvement in every parameter on the questionnaire. Fifty percent of patients stopped taking any other medications for fibromyalgia. Thirty percent of patients experienced very mild adverse effects. Additional research was suggested with increased sample size.

The studies conducted by Devinsky et al. (2016) and Habib and Artul (2018) illustrated the benefits of MM use. They also indicated the need for additional testing and increased sample size. The federal classification of marijuana as a type 1 drug presents challenges for research funding (Grinspoon, 2018). The benefits of using MM is documented, however some studies illustrate cognitive deficits in MM users, primarily in the areas of memory and learning. Bostwick's (2018) studies found no significant effects connected to memory loss. A review of MM studies conducted by Hirst, Watson, Rosen, and Quittner (2018) revealed mixed findings regarding the neuropsychological effects of MM. Eight vignettes, each showing marijuana users varying in age, gender, and history of marijuana use, showed broad but mild cognitive deficits and memory loss (Hirst et al., 2018).

Cancer patients who have used MM as a treatment plan experienced mixed reactions to MM use. Saadeh and Rustem (2018) conducted a study to compare the incidence of marijuana use by patients with early versus advanced-stage cancers. Using a self-reported questionnaire, adult patients who received chemotherapy were asked to report their use of marijuana. Of the 175 patients, 32 (18.8%) reported use of marijuana. Early-stage patients, 19.6% (11 out of 56 patients), versus late-stage cancer patients, 17.6% (21 out of 119 patients), reported more pain and nausea associated when using marijuana; this caused patients to stop using MM as a treatment. The studies revealed mixed results indicate MM use is not a cure for all. The results are also inconclusive regarding the dependency of MM and its benefits. The findings indicated MM has many positive benefits; however additional studies are needed. The benefits of MM were highlighted in studies conducted by Devinsky et al. (2016) and Habib and Artul (2018).

Researchers, however, continue to yield mixed results of the long-term benefits of marijuana (Hirst et al., 2018). Medical uses for marijuana will benefit from more research and studies into its efficacy.

Medical Marijuana Treatment for Epilepsy and ADHD

Doctors who treat children with epilepsy and attention deficit hyperactivity disorder have suggested MM as a treatment for children who are diagnosed with those conditions. Narratives reporting the ability of MM to alleviate seizures have been discussed for over a century (Grinspoon, 2018). Now that MM is becoming a topic of interest and is legal in over 30 states, trials are being conducted to determine the potential benefits of medical marijuana for seizures (Privratsky, 2018).

Orrin Devinsky, a neurologist at New York University Langone Medical Center, and his colleagues across multiple research centers, published the results from the largest study to date of a cannabis-based drug for treatment-resistant epilepsy. The researchers treated 225 patients ages 2 to 55 in a randomized control trial. The trial was to assess the efficacy and safety of doses of MM. Seizure activity was monitored for a 4-week period prior to the start of the study. The trial tracked seizures throughout a 14-week study period. The researchers reported side effects were mild and included sleepiness and diarrhea. The results showed a 39% drop in seizure frequency. The study provided promising results for epilepsy. Devinsky (2016) stated “this an extraordinary time for epilepsy and MM is one of the most prominent and exciting treatments coming out, however we lack data for some epilepsy syndromes” (p. 1). Kevin Chapman, a neurology, and pediatric professor at the University of Colorado School of Medicine, who was not involved in the Devinsky study said, “I think this study provides some good

data to show that it's relatively safe to use MM and it can reduce seizure and increase quality of life—the adverse effects were mostly mild” (Groce, 2018, p.17).

The medical community is beginning to suggest MM as an option to treat seizures. An open study conducted by Hausman-Kedem, Menascu, and Kramer (2018) targeted 57 patients ages 1-20 with epilepsy using oral administration of MM. The focus of the operational longitudinal study was to evaluate the efficacy of MM for the treatment of epilepsy. The study was conducted over 3 months and 46 patients participated. The results indicated a significant reduction in seizure frequency according to parental reports. It was noted that randomized controlled trials are necessary to assess its true efficacy.

Parents seeking alternative treatments for their children with seizures are choosing MM. The parent of a MM user stated that children with hard-to-treat epilepsy may find using a strain of MM called Charlotte’s Web beneficial. This strain might make treatment for children easier to manage because it does not produce the feeling of being intoxicated or high (Brown, 2018). The THC levels in the Charlotte’s Web strain are very low: the CBD amounts are high (Rosado, 2018). Prescribing MM to children is a recent pathway of treatment. Due to the Food and Drug Administration (FDA) identification of MM as a drug, studies are limited, and more are needed to provide conclusive data (Rosado, 2018). The studies conducted by Devinsky et al. (2016) and Hausman-Kedem et al. (2018) identified MM as an effective treatment to explore for children with epilepsy. The studies highlighted the need for more testing and trials to determine proper dosage for children.

Medical marijuana has been explored as a treatment for attention deficit hyperactivity disorder. A 15-year-old boy diagnosed with ADHD was the subject of an uncontrolled case report. This report was written by Richards et al. (2017) Its purpose was to provide information on how to improve tics and reduce the number of stimulants associated with ADHD. The results indicated that the tics were considerably improved without adverse effects. The number of stimulants associated with ADHD were reduced. The report indicated further studies were needed to substantiate findings. The report's case studies illustrated the benefits of using MM as a treatment plan for epilepsy and ADHD. It also indicated the need for additional research and randomized testing using MM for epilepsy and ADHD.

Blurred Lines - Medical Marijuana versus. Recreational Marijuana

Medical marijuana is often confused with recreational marijuana. The blurred lines occur when addressing the benefits of MM. Some users of recreational marijuana state it reduces pain. Statements from recreational marijuana users make it difficult for naysayers of MM to separate the two drugs. The oppositional literature surrounding medical marijuana is associated with the blurred lines that confuse recreational marijuana and medical marijuana use. Some studies have highlighted the overlapping confusion of medical marijuana and recreational marijuana. Other opposition literature states MM has had no or minimal positive effect. In some instances, MM treatment has been associated with a worsening of seizures or other serious side effects leading children to be hospitalized (Brooks-Kayal, 2021). The limited studies surrounding MM has made it difficult to produce concrete results (Grinspoon, 2018). In a Canadian study of 104 human immunodeficiency, virus-positive adults, 43% reported botanical cannabis use in

the previous year. Two-thirds of the patients experienced symptoms ranging from appetite stimulation and sleep induction to antiemesis and anxiolysis; 80% of this group also used the botanical cannabis recreationally (Bostwick, 2012). Bostwick's (2012) comprehensive research work included a comprehensive literature review. The literature review indicated MM and recreational marijuana are sometimes both consumed by patients. The consumption of both makes it difficult to discern the effectiveness of medical marijuana.

According to Bostwick (2012), a team of Canadian investigators interviewed 50 self-identified medical cannabis users, finding that "typically MM use was followed by recreational use and the majority of those interviewed were long-term and sometimes heavy recreational users" (p. 174). Blurring the boundary between medical and recreational use still further, Bostwick (2012) included in his literature review interviews with more than 4,100 Californians who were deemed medically ill. The information revealed that the medically ill patients preferred inhaling their medication and vapor inhaled consumption is often the preferred method to consume recreational marijuana (Bostwick, 2012).

According to Bostwick (2012), MM is easier to control by users when they consume it in a vapor form. The other methods of consumption are less favorable to use with adult patients. The literature review noted that medical marijuana users may consume less than recreational users. Users of MM inhale only enough to produce the desired clinical effects. When MM is ingested in vapor form it is often associated with the previous illegal use of the drug. However, when consumed in the form of vapor it also

has the potential to reduce respiratory symptoms and decrease negative effects on pulmonary function (Mammoser, 2017).

Saddeh and Rustem (2018) conducted a study which incorporated 400 different chemicals from 18 different chemical families, with MM containing more than 2,000 chemical compounds. The purpose of the study was to compare the incidence of medical marijuana use by people who are diagnosed with early-onset seizure and prolonged seizures. The results showed that short-term cannabis use can cause decreased heart rate and blood pressure. However, when ingested in a vapor form over a 5 year period, cannabis can increase the toxins in the body. The findings revealed that cannabis smoke contains many of the same toxins found in tobacco smoke. Although MM toxins were found in the participants of the study, these toxins are less harmful than many toxins in prescribed medicine for seizure disorders (Saadeh & Rustem, 2018).

Bostwick's (2012) literature review and studies conducted by Saadeh and Rustem (2018), indicated the preferred method for consumption of medical or recreational marijuana is inhalation. This method has been proven to be effective (Saadeh & Rustem, 2018). However, the method delivery (i.e, inhaling) is stigmatized and reduces the argument in support of the need for medical marijuana (Jacobson, 2018).

Testing to identify the benefits of MM continues to show some areas of definite benefits. Parent and anecdotal data indicated reduced seizures and improved health for children. It also recommends the need for additional resources to produce substantive findings (Brown, 2018). The findings are based mainly on trials and parent and doctor anecdotal findings, which are inconclusive and result in inconsistent results (Grinspoon, 2018). The federal and state laws are incongruent regarding marijuana use. Bostwick

(2012) indicated in his literature review the blurred lines regarding medical and recreational marijuana. These blurred lines make it more difficult to convince naysayers of the benefits of MM. There is research that supports the growing benefits of MM use and the increasing need for additional research.

Medical Professionals and Medical Marijuana

Medical opinion varies regarding the benefits of MM. There are different stages of acceptability based upon the physician's exposure and training. Medical marijuana has been glorified, demonized, and now increasingly used as a medical treatment plan (Kleber & Dupont, 2012). Although there is a vast amount of money directed towards political campaigns to legalize MM in states, similar effort has yet to materialize in the medical community for MM research (Kleber & Dupont, 2012). The (FDA) has not yet determined the potency, purity, and composition of safe medical marijuana (Orberg, 2017). This affects how it will be controlled. Many concerns are being raised about medical marijuana's side effects, and long-term effects, especially in adolescents and young adults (Kleber & DuPont, 2012).

Medical professionals have concerns about prescribing the correct dosage and are not quite sure if an exact dose exists (Bostwick, 2012). Currently, there is not one FDA-approved medication that is available for smoking. Over the past 70 years, the average potency of THC has increased by 90% (Pettinato, 2017). The consumer has no way of knowing the accuracy or the purity of the product. A major concern of medical professionals is the potential risk to patients. Thompson (2015) suggested that marijuana, like all legal drugs, has possible risks. It can cause increased heart rate, which can increase chances for heart attack in people who are already at risk. It can be addicting and

can interfere with work, school, and relationships (Thompson, 2015). As medical professionals continue to assess the effectiveness of medical marijuana, studies suggest it can be an effective treatment for chronic pain, nerve pain, muscle spasms, glaucoma, and seizures (Boehnke, Gangopadhyay, Clauw, & Haffajee, 2019). Research has shown evidence of MM treatment efficacy across different conditions is not conclusive (Boehnke et al., 2019).

Medical professionals are suggesting the creation of a nationwide patient registry that would unify medical marijuana's usage and provide a better understanding. Currently a registry does not exist. As the legalization of MM in various states occurs, individual states create their own conditions and guidelines for use. Some states are requiring patients with prescriptions to register with the state. This tracking system should begin to help medical professionals (Kondrad & Reid, 2013). More studies on the use and effects are needed to help doctors unify and become confident in providing prescriptions (Pettinato, 2017).

The relationship between primary care professionals (PCP) and patients is significant in the conversation around MM (Bostwick, 2012). Kondrad and Reid (2013) conducted a study with 17 patients; 11 stated they were prescribed MM from a doctor other than their primary care physician, and six patients said a doctor at a dispensary recommended MM. One of the 17 patients indicated his primary care physician recommended MM for his chronic pain management. The most common reason for the prescription was cited as severe pain (Kondrad & Reid, 2013). Patients did not feel comfortable consulting with their PCPs regarding the use of MM as a treatment plan.

Medical marijuana is increasingly becoming a requested treatment plan for individuals (Pickert, 2021). Boehnke et al. (2019) noted that currently there is no agreement in the medical community about the use of prescription MM. The research conducted by Kondrad and Reid (2013) has shown that there is also an issue with patient-doctor communication regarding the patient's true use of marijuana.

In another study conducted by Kondrad and Reid (2013), paired surveys were distributed to primary care physicians and their patients to identify frequency of patient marijuana use and communication with the PCPs regarding that use. The results showed poor communication between the patients and the PCPs. Of the 242 patients who participated in the survey, 22% reported marijuana use in a half-year time frame. Those who identified as MM users were 61% of the respondents. The PCPs were aware of 53% of their patient's usage (Kondrad & Reid, 2013). The studies conducted by Kondrad and Reid illustrate the need for trust between doctors and patients. Patients are reluctant to share their choice of MM treatment with PCPs. The lack of knowledge and research regarding medical marijuana in the medical community poses a barrier for medical professionals to discuss with patients.

Medical professionals are seeking additional training about MM treatment plans. Grinspoon (2018) conducted surveys on medical students, those findings revealed that almost 90% of physicians in the final stages of their training—residents and fellows—felt they were not at all prepared to prescribe MM, and more than one-third of the participants felt they were not able to accurately answer questions about MM. Almost 85% of the participants reported receiving no education about MM during medical school or residency. The study identified that one in 10 medical schools include teachings or

curriculum regarding MM (Grinspoon, 2018). This lack of education limits the conversation and information that primary care providers can share with their patients (Grinspoon, 2018).

The findings from Grinspoon (2018) suggested that PCPs are probably aware of their patients' use of traditional medications, but they are not likely to know about their patients' marijuana use. As a result of mixed perceptions regarding the topic, many patients might feel they would be judged negatively if they inquired about the benefits of MM with their PCPs (Grinspoon, 2018). The lack of knowledge that PCPs have regarding MM becomes a challenge for them to initiate and/or discuss a treatment plan as an option for their patients (Kondrad & Reid, 2013).

Beliefs, stigmas, and lack of research continue to raise questions regarding the benefits of MM (Grinspoon, 2018). Medical professionals are seeking training to answer patients' questions regarding MM. Lack of information and training make medical professionals feel unqualified to prescribe MM. Many of the questions posed by medical professionals also remain key considerations in policy makers' inability to come to a consensus regarding medical marijuana (Grinspoon, 2018).

Medical Marijuana Uses for Children

Medical marijuana is becoming more popular as a chosen treatment plan for children. A growing number of parents across the country are turning to medical marijuana to treat their children—often after pharmaceutical methods have been unsuccessful (Carbone, 2018). Parents reported improved quality of life and a sense of normalcy with MM use (Klumpers et al., 2012).

Bellano (2015) reported that the mother of a 5-year-old California girl who could bring MM to school, said “I was so overwhelmed with joy that we don’t have to keep pushing to get what she needs, she can just go to school like any other child” (p. 2). Like the child in California, the number of children in Delaware receiving MM is rapidly climbing (Newman, 2018). For a child in Delaware to receive MM, both parents and a licensed physician need to provide consent (Newman, 2018). Another positive factor for children is that long-term use of MM can be effective in treating seizures and chemotherapy-induced nausea in young patients. Mammoser (2017) conducted a meta-analysis that looked at 22 relevant studies on the use of MM with adolescents and children. Mammoser (2017) supported MM use for children but cautioned against the psychoactive effects like memory loss and difficulties with concentration.

Parents relate the success their children are experiencing while using MM as a treatment plan (Ryan et al., 2020). However, some researchers have conducted studies that demonstrated negative results. Studies have indicated that some side effects of MM could include short-term memory loss, higher psychosis rates, and decreased concentration in children (Ammerman, Ryan, & Adelman, 2015). Researchers have found there can also be harmful effects associated with MM use. Hopfer (2014) reported that one potential side effects of MM use, is the challenge it presents for adolescent drug prevention efforts. The sanctioned use contrasts with messages of marijuana’s harmfulness. Hopfer (2014) researched Colorado medical marijuana usage and revealed that within 2 years, beginning in 2012, the use of MM increased from 2,000 patients to an estimated 150,000 patients. The report details that this increase in usage may have a connection to an increased high school dropout rate. It may also create marijuana

dependence for adolescents who used MM and were under 18 years of age (Hopfer, 2014).

Hadland et al. (2015) conducted a study to take a deeper look into the perceived riskiness of marijuana usage among different subgroups of high school seniors. Their findings indicated that between 2010 and 2016, youth who identified as MM users increased significantly, while the group that identified as recreational MM users decreased (Hadland et al., 2015).

Other studies illustrate medical marijuana's positive effects when used to treat children (Mammoser, 2017). The studies conducted by Mammoser (2017) report the medical benefits and need for additional research. The findings of Ammerman et al. (2015) were inconclusive regarding the impact of MM on a child's development over an extended amount of time. In comparison to the parent data of Smith (2019) which reflected immediate positive changes and quality of life. Longitudinal research is needed to produce concrete data that can lead to conclusive decision making (Mammoser, 2017).

Chapter Summary

Some of the literature supports the decision of parents to choose a MM treatment plan (Mammoser, 2017). The research identified reasons for supporters and skeptics to have equal concerns (Smith, 2014). The literature agrees that MM may be a viable treatment plan (Thompson, 2015). The literature indicates MM is used for pain management and reduction of seizures. However, the literature also identified the overwhelming need for more research, longer testing trials, and larger sample size testing to gather consistent and concrete evidence regarding medical marijuana (Hadland et al., 2015). The research described the positive effects of MM and the challenges presented by

the laws regarding its usage (Grinspoon, 2018). Parents of students seeking alternatives to traditional medication will continue to be on the frontlines advocating for the implementation of policies in K-12 public schools. Those parents who choose a MM treatment plan will continue to be advocates for their children as they foster partnerships with schools regarding policies for homework, class and course offerings, and medical needs (Terrell, 2016). Chapter 3 describes the methodology that was used for this study, including the research context and design, the research participants, and the instruments and procedures that were used for the data collection and analysis.

Chapter 3: Research Design Methodology

Parental decisions to choose MM treatment plans for their children who attend public schools have created uncertainty for state and federal lawmakers, students, school districts, and parents/guardians (Terrell, 2016). The use of medical marijuana benefits the lives of many people who suffer from life changing illnesses such as MS, epilepsy, autism, and more attention deficit hyperactivity disorder (Thompson, 2015). In most cases, MM is derived from a plant and is prescribed and used in the form of an oil (cannabis oil), which the patient can ingest either through food or drink. While MM has been legal in some states for almost two decades, it is still illegal under federal law (Thompson, 2015). Parents' demands for alternate medications as treatment plans are forcing school districts and lawmakers across the United States to tackle the issues regarding students' use of MM (Jacobson, 2018).

The issue arises when students are prescribed MM treatment plans and cannot have it administered in school. Schools must comply with federal and state laws to qualify for state and federal funding. The funding issues become complicated when the federal and state laws conflict. Public schools must make a choice in some cases: Do we support our students' parents and provide the treatment plan of choice, or do we comply with federal funding regulations and limit the use of medical marijuana in our schools (Terrell, 2016)?

The MM policies are evolving in the United States, with marijuana sales fully legalized and regulated in some jurisdictions, and the use of marijuana for medicinal purposes permitted in many others (Terrell, 2016). Amidst this political change, patients

and families are asking whether MM and its derivatives may have therapeutic use for several conditions, including epilepsy and attention deficit disorder in children and adolescents (Hadland et al., 2015). New Jersey, Maryland, and Colorado are states that have permitted MM administration in public schools. Governor Chris Christie's bill A4587 was inspired by a parent from Maple Shade, New Jersey. This parent sought legal recourse to administer MM treatment on school grounds after her request was denied by the school district (Livio, 2019). The bill was adopted in November 2015 making New Jersey one of the pioneer states permitting MM administration on school grounds. The purpose of this study was to develop an in-depth understanding of the experiences of parents like the one who inspired this legislation.

Qualitative methodologies use focus groups or interviews as instruments for data collection. An in-depth interview was used for this narrative study. A three-dimensional space approach by Clandinin (2007) involving analyzing data for three elements: situation (physical places) interaction (personal and social), and continuity (past, present, and future). Narrative researchers situate individual stories within participants' personal experiences (their homes, their families) (Creswell, 2014). Five qualified candidates were chosen for interviews. The interviews were conducted via video conferencing, recorded, and notes were taken. The study captured notes in two parts: reflective in which the observer used video conferencing to record thoughts and ideas; descriptive in which the observer attempted to capture a word-picture of the setting by describing conversations and actions.

Research Context

The research was conducted via Zoom with parents from New Jersey, Maryland, and Colorado schools; the selected participants had children in schools that had adopted legislation like New Jersey's Bill 4587. Adopted in November 2015, this legislation permits children who are prescribed MM to receive the treatment on school grounds.

The researcher selected participants from on-line parent groups who consist of parents who have children with disabilities. The researcher selected parents whose children are diagnosed with epilepsy and ADHD.

Research Participants

The population for this study consisted of the parents of five children who attend New Jersey, Maryland, and Colorado schools and have chosen MM treatment plans for their children. New Jersey, Maryland, and Colorado were the chosen locations because they have legalized the use of MM. These states also specifically permitted the administration of MM in K-12 public schools. Creswell and Creswell (2018) identified narrative sampling size guidelines for a narrative study as one to two cases. This study targeted five participants for the purposes of getting common themes of experiences and to obtain saturation. The participants are parents of children who have been identified by their school districts as children with educational disabilities. Each participant collaborated with their school district to implement a MM policy. The following questions were qualifiers for participation in the study:

1. Do you have a child or children of K-12 school age?
2. How does medical marijuana policy impact parent's perceptions of their child's performance in school?

3. Do you have children who attend school in New Jersey, Maryland, or Colorado?

Research Design

The purpose of this study was to highlight personal experiences that included successes and challenges implementing medical marijuana school policies. This narrative study used a three-dimensional approach by Clandinin (2007) involving three elements: continuity (past, present, and future), situation (physical places) and interaction (personal and social). Huck (2016) identifies the narrative design approach as an approach that follows a chronology of events and situations. It is descriptive in sharing information (Huck, 2016). The narrative, three-dimensional research design was chosen to capture the experiences of parents before medical marijuana implementation, during medical marijuana implementation and after medical marijuana implementation. This design will provide the framework for data collection throughout the entire implementation process. The three-dimensional approach aligned with the research questions and addressed the students' experiences. The students' academic performance after MM plan was implemented, addressed the present as indicated in the three-dimensional approach. The student's continuous social and emotional needs after the MM plan was implemented, addressed the future as indicated in the three-dimensional plan. There are not any prior studies pertaining to parents' experiences with MM implementation in public schools. This study addressed the following research questions:

1. Given current medical marijuana policies, how do parents describe their experiences implementing their children's treatment plan?
2. How does MM policy impact the parent's perception of their child's performance in school?

3. How do parents describe the implementation of existing medical marijuana policy on their child's social and emotional development?

Clandinin (2007) suggests narrative can be either a phenomenon of study or a method of study. It is best for capturing the detailed stories of a small number of individuals' life experiences. The participants in this study were known to the researcher through membership in the Parents of Epilepsy group. It is a parent group with participants who were easily accessed by the researcher. The names were taken from online group chats in the Parents of Epilepsy group. Then, the parents were contacted via e-mail. The initial e-mail was a letter of introduction. The e-mail letter of introduction introduced the study to the prospective participants, summarized the purpose of study, outlined the criteria for participation, and encouraged voluntary participation. After the notice of participation was received by the researcher, follow-up correspondence via e-mail was sent, which included informed consent. Following the completion and return of the informed consent, interviews were scheduled. The researcher used the assigned St. John Fisher e-mail address or text, to communicate with participants concerning the interviews. The researcher arranged one interview for approximately 90 minutes either using face-to-face or telephone interviews. Using a variety of platforms audio/visual meetings, for example Zoom or Google Meets, the interviews were digitally, and audio recorded and transcribed by Rev.com.

The letter of introduction was used to obtain information regarding the child, use of treatment plan, and school data (Appendix A). The informed consent form provided the participants with information regarding the purpose of study, participation requirements of the study, and outlined the anticipated benefits and risks of participation

in the study, assured confidentiality, and addressed compensation issues. The form emphasized that participation in the study was voluntary. See Appendix B.

Instruments Used in Data Collection

The instruments used in data collection were chosen to ensure safety during the COVID-19 pandemic, the researcher used only face-to-face digital interviews or audio interviews. The researcher used an electronic recording device and a note pad for notes. The researcher used semi-structured interviews for this narrative study. The interviews consisted of 20 questions and required one 90-minute session. A group of semi-structured, open-ended interview questions were constructed to address each of the research questions. The interview questions were categorized to answer the research questions. A parent who has a child with a disability reviewed the interview questions to ensure the validity of each question. The parent who reviewed the interview questions for validity was not a participant in the study. The feedback from the parent review resulted in the elimination of one question. See Appendix C for the interview questions.

The interviews captured the voice of the participants and gave them the opportunity to provide rich details about their experiences. The interview questions were aligned with the research questions (Appendix C). The data collected from the interviews will be stored on the researcher's password-protected computer in a password-protected file. The data will also be stored on an encrypted USB device. The data will be destroyed 3 years after the completion of the study by deleting it from all files.

Data was reviewed and coding began after the initial interviews. The coding continued until a level of saturation was met within a 3-5 range (Creswell & Creswell, 2018).

Procedures for Data Collection and Analysis

The data collection in a narrative study needs to be analyzed for the story they tell (Creswell, 2014). The digital audio data was gathered using a recording device and handwritten note taking was transcribed and coded. After the interviews were conducted, an electronic program was used to transcribe each interview. Once interviews were transcribed, they were reviewed for accuracy. According to Corbin and Strauss (2015), “the coding process should be followed by creating data-driven codes identifying and outlining themes within convenient samples” (p. 11). Each interviewee had one interview session. When required, follow-up questions were asked after the interviews were transcribed. Both axial and open coding methods were used to analyze each transcript. Open coding is a process of analyzing the transcripts and generating initial categories and identifying themes that emerge from the data. After open coding was complete axial coding was used to identify consistent themes and relationships within each interview related to the interview questions or research questions. To increase the strength of the study, intra-coder reliability, was conducted in addition to the researcher’s coding. A mentor assisted in validating the coding of the same data. The researcher’s mentor is a professor at a historically Black university and has a doctoral degree in education and communication from Syracuse University. The codes and transcripts were reviewed for consistency and/or agreement.

Themes from interviews were compared to identify similarities and differences. A narrative description summarizing the results of the analyses was compiled and served as the foundation for the narratives presented in Chapter 4. A three-dimensional space approach was used involving analyzing data interaction (personal and social) situation

(place) and continuity (past, present, and future). During and at the conclusion of the interviews, member checking was conducted to clarify any important points shared during the interview and to increase trustworthiness.

The researcher used intra coding to verify the researcher's coding system with fidelity. The researcher reviewed each of the transcripts identified the codes and noticed the codes had a distinctive sequential pattern. The codes generated the categories and themes generated in Chapter 4. After the interview process concluded, the data analysis began. The researcher wrote session notes to record any verbal emphasis, pauses, or changes in tone, plus expression of emotions.

Summary

Parents' choice to select MM as the treatment plan for their children has been a topic of discussion for over a decade. The narrative data that the parents shared regarding how they formed a partnership with their K-12 public schools is important. It can be used to inform schools working to meet the health care needs of all students (Greener, 2018). This qualitative research study includes five research participants who partnered with their child's school to implement a MM policy. Each participant answered three qualifying questions. Interviews were conducted virtually due to COVID-19. An in-depth interview format was used for this narrative study. A three dimensional space approach by Clandinin (2007) involving analyzing data for three elements: situation (physical places) interaction (personal and social), and continuity (past, present, and future). Open and axial coding was used to identify consistent themes and relationships within each interview related to the interview questions or research questions.

Themes from the interviews were compared to identify similarities and differences. This pioneer study is intended to be an informal guide to school district leaders and policy makers who are still grappling with the development of medical marijuana policies in their schools. The narrative study will provide a blueprint for parents, policy makers, and school district leaders to ensure all students have access to the treatment plans they need to produce positive student outcomes academically, emotionally, physically, and socially.

Chapter 4: Results

The purpose of this qualitative narrative study was to explore parents' perceptions of how MM policies are implemented in K-12 schools. Parents of students diagnosed with medical conditions such as ADHD and epilepsy are seeking MM as a treatment option. Their choice to have medical marijuana administered in public schools has created difficulties for state and federal lawmakers, students, school districts, and parents/guardians (Terrell, 2016). Thompson (2015) posited that MM benefits the lives of many people who suffer from life changing illnesses, such as multiple sclerosis (MS), epilepsy, autism, and glaucoma. In most cases, MM is prescribed and used in the form of a plant or an oil (cannabis oil), that the patient can ingest either through food or drink. While MM has been legal in some states for almost two decades, it is still illegal under federal law (Thompson, 2015). Parents' demands for the use of MM is forcing school districts and lawmakers across the United States to tackle the issues regarding students who are prescribed medical marijuana (Jacobson, 2018).

In 2019 the parent support group for children with epilepsy had roughly 1,450 members, the parent group current has 1600 members. As the group grows in numbers, so does the number of parents across the country who turn to medical marijuana to treat their sick children, often after pharmaceutical remedies have failed. After years of attempting to keep marijuana cannabis out of schools, educators across the country now must address the issue of administering prescription MM to students (Terrell, 2016). When public school boards of education allow the administration of medical marijuana

on school grounds, they are violating federal law—even though marijuana use may be legal for medicinal purposes under state laws (DeNisco, 2016). The participants in this study highlighted the process of obtaining state legislation for the use of MM and the challenges associated with school districts' adopting a policy even after legislation was obtained. Some participants had to get court orders after the legislation was passed, in order to have school districts implement a MM policy to permit the administration of medical marijuana on school grounds.

This chapter describes the findings based on data analysis of the responses of parents who have chosen medical marijuana as a treatment to address their children's medical conditions. Direct quotes from each parent are included in this chapter to highlight their experiences, thoughts, and reflections, using authentic words and expressions. The findings from this study detail the steps that are recommended to develop and implement a MM policy in public schools.

Parents who have selected MM as a treatment plan were interviewed and asked questions directly related to three research questions. The research questions addressed three challenges identified in the literature. These challenges are: (a) parental experiences with policy implementation (Thompson, 2015); (b) children's academic performance in school; and (c) social and emotional health after policy implementation (Terrell, 2016). Accordingly, the following research questions were constructed:

1. Given current medical marijuana policies, how do parents describe their experiences implementing their children's treatment plans?
2. How does medical marijuana policy impact a parent's perception-of their child's performance in school?

3. How do parents describe the implementation of existing medical marijuana policy on their child's social and emotional development?

Interview Questions

Semi-structured, open-ended interview questions were constructed to address each of the research questions. (Appendix C). Each participant was asked the questions in the order listed on the table.

Interview questions 1 and 2 were posed to explore the historical knowledge and reasons associated with the parents' selection of medical marijuana as a treatment plan. The responses provided information for the development of school board policy. The open-ended, semi-structured style of questions allowed participants to respond with additional information about their rationale for choosing medical cannabis as a treatment plan. The structure of the questions ensured opportunities for additional and relevant follow-up questions to gain deeper understanding into the initial responses. Questions 3-5 asked the participants to address events that occurred during the implementation process that might have caused them to question and/or doubt the existing MM policy. Interview questions 6-11 specifically addressed the impact the policy had on children's academic functioning. Interview questions 12-15 asked the participants to discuss the impact of the MM policy on their children's social development. Interview questions 16-19 specifically asked the participants to address the emotional impact resulting from the MM policy. Interview question 20 provided participants the opportunity to reflect on the questions and responses and contribute final thoughts about the process, and policies.

Table 4.1

Interview Questions Aligned with Research Questions

Research Questions	Interview Questions
1. Given current medical marijuana policies, how do parents describe their experiences implementing their children’s treatment plan?	1. Why did you choose medical marijuana as a treatment plan for your child? 2. How did your child’s school personnel react to your choice to use medical marijuana as a treatment plan? 3. What, if any, positive and or negative experiences did you have while collaborating with the school to implement your child’s treatment plan? 4. Can you share an experience during the process that left you feeling confident about your decision? 5. Can you share an experience during the process that left you feeling doubtful about your decision? 6. Have you had to postpone your preferred treatment plan of medical marijuana for your child? How? Why? 7. How did this shape your child’s academic performance? 8. Do you view the current medical marijuana policies to be effective for children in K-12 schools?
2. How does MM policy impact parent’s perception of child’s performance?	9. Have your child’s data on report cards increased or decreased due to the MM policy? 10. Was there an improvement in academic outcomes due to implementation of MM policy? 11. Can you share a moment or memory that stands out for you regarding your child’s academic experience before or after implementation of the policy?
3. How do parents describe the implementation of medical marijuana policy on their child’s social and emotional development?	12. Has your child experienced any barriers to social development in school? 13. Have behavioral concerns increased or decreased due MM policy? 14. Do you feel your child’s social development has improved or declined due to the current medical marijuana policies in place in your child’s school? 15. Do you feel your voice has been heard in the process regarding your child’s social development? 16. What would you say to someone considering this treatment plan and journey with a school district? 17. How has the choice of MM as a treatment plan affected your child’s emotional state? 18. Can you share any success of challenges of your child’s emotional development due to the policy? 19. Can you share an experience made you reconsider your treatment plan because of your child’s emotional development? 20. Do you wish to share any information that has not been addressed yet?

Research Participants

Five parents who had selected MM as a treatment plan and collaborated with schools to implement a policy were selected as participants for this study. The participants were identified through a parent group for students with disabilities. Each parent in the group had a child who was classified as educationally disabled under IDEA by their own school districts. Each parent's name was substituted with a pseudonym, to protect the identity of the participant. Biographical information about each participant is below. Due to the global pandemic COVID-19 participants were interviewed virtually.

Participant 1. Lena is the mother of two children. One of her children is classified as a student with a disability. Lena has selected MM as a treatment plan. Lena and her husband worked with their child's school to implement a MM policy. Lena's children attend a suburban school district. Lena is a recent widow who resides in New Jersey and was a stay-at-home mom for 18 years. Lena has recently returned to work after the passing of her husband who was the bread winner in the family. Lena's two children attend New Jersey public schools.

Participant 2. Carla is a married mother of four children. Carla selected medical marijuana as a treatment plan for her child. She worked with the school district to implement a policy. Carla's children attend a suburban school district. Two of her children are classified as students with disabilities. She is self-employed. She and her family reside in Maryland.

Participant 3. Gina is a single mother of three. One child is classified as a student with a disability. She chose MM as the treatment plan for her child. Gina worked

with her child's school to implement the MM policy. Gina's children attend a suburban school district. Gina resides in Maryland with her family and is self-employed.

Participant 4. Rain is married with two children. Both children are classified as students with disabilities. She selected MM as a treatment plan. She worked with her school district to implement the medical marijuana policy. Rain's children attend a suburban school district in Maryland. She is self-employed.

Participant 5. Brett and Amy are a married couple who participated together. They have four children. One of their children is classified as a student with a disability. They selected MM as a treatment plan. They worked with their school district to implement a medical marijuana plan. Their children attend a suburban school district in Colorado. Amy is employed in the medical field and Brett is self-employed.

Data Analysis and Findings

The data was analyzed by searching for themes from the participants' comments. The findings are detailed below. Creswell and Creswell (2018) identified narrative sampling size guidelines for a narrative study as one to two cases. This study targeted five participants for the purposes of getting common themes of experiences and to obtain saturation. Every interview was recorded, At the completion of each interview, the recording was professionally transcribed by REV. Com transcription service. The researcher interpreted the data using a line-by-line color coding system. Several categories and themes emerged from the coded data. Comments for each of the research questions were collected and transcribed. The data was considered in detail, preliminary characteristics were developed and identified. The coding scheme was developed using open coding, and axial coding. Selective codes were created by connecting and

consolidating axial codes. These codes were abstracted from the evidence produced from the data. Categories and themes became apparent from the analysis of the interview data and were constantly refined until a generalized pattern of the participants' views were established. The interviews were rich and full of ideas, the most prominent categories were selected. Originally there were four research questions however, interview responses associated with Research Questions 3 and 4 often overlapped. Specifically, some participants merged social and emotional characteristics. These overlaps will be noted in the discussion section of this study.

Research Question 1. Data were collected to answer Research Question 1: Given current MM policies, how do parents describe their experiences implementing their children's treatment plan? The participants were asked why they selected medical marijuana as a treatment plan. The participants were also asked to describe their school's reaction to the treatment plan. The parents were also asked to highlight any experiences that would provide insight into their rationale for selecting MM and describe how the support received from other parents encouraged them to advocate for implementation policies. Table 4.2 displays the codes, categories, and themes that emerged from the participant responses to the interview questions associated with Research Question 1.

Five categories emerged from the coded data associated with the responses to questions regarding parents' experiences with the implementation of medical marijuana policy in their child's school.

Table 4.2

Experiences with Policy Implementation

Codes	Category	Theme
unsuccessful doctors prescribe meds, increased medicine dosage.	Unsuccessful Results of Pharmaceutical Meds	
sleeping all day, did not stop seizures, feeling drugged, not able to complete daily task, alter	Side Effects	Unsuccessful Use of Pharmaceutical Medicines
personality, medical trials, doctors unsure of treatment plan	Doctor's Limited Experience	
blueprints of other parents supporting court appearance legal protection, sharing information regarding medical cannabis treatments	Parents supporting Parents	Parents Learning from Other Parents
passing legislation, testifying in court, legal fees, 134 days to sign a bill.	Legal Victories	Legislation
proud moments, parents feeling victorious, conversations with the school can begin		

Categories. The responses to the interview questions were compiled into five emergent categories exploring the individual factors that were considered by parents. Table 4.3 displays the categories that emerged from the interview data and the frequency of each based on the responses to the interview questions. The X indicates the participant response to that category.

Table 4.3

Experiences with Implementation Policy

Category	Participants					Total
	Lena	Carla	Gina	Rain	Brett/Amy	Total
Unsuccessful Results of Pharma Medicine	X	X	X	X	X	5
Side Effects	X	X		X	X	4
Doctor's limited Experience with Medical marijuana treatment		X	X	X	X	4
Parents Supporting Parents		X			X	2
Legal Victories	X	X		X	X	4

Unsuccessful results of pharmaceutical medicine. The participants stated that their selection of medical marijuana as a treatment plan came after the unsuccessful use of prescribed pharmaceutical medicines. All the participants defined pharmaceuticals as FDA approved medicines prescribed by a medical doctor. All the participants referred to medical marijuana as medical cannabis. Three participants explained that medical cannabis is a term that has a positive association in the medical field and the term medical marijuana is often confused with recreational marijuana. Participants explained that although medical cannabis is recommended by a physician, a dosage cannot be specified

because the drug does not have federal approval for medical use. State law permits medical cannabis use. Doctors omitting dosage allows them to comply with both state and federal law.

All the participants described pharmaceutical medicine as unsuccessful treatment for their children. The medicine did not provide adequate treatment of the diagnosed illness. The participants also indicated the treatment caused harmful side effects.

For example, children would continue to have seizures while using the pharmaceutical medicine, in addition they would have adverse side effects. Lena said that the pharmaceutical medicines would make her child sicker. Lena stated.

My daughter would continue to have several seizures a day while using pharmaceutical medicine. In addition to the seizures, my daughter would drool all day. She is non-verbal and is unable to communicate verbally . . . she would become so toxic that she would throw up for hours. There were times that she has not even been able to walk because she is that high, the adverse effects are so ironic because it bombed her out. Being high is the critic's response to why medical cannabis is not the same for children, and my daughter was high on the pharma medicines. As her seizures continued, we have had days where she slept on end, and drooling, can you see a 16-year-old drooling, it is horrible, and my daughter does not drool.

Carla stated that pharmaceutical medicine was prescribed in error: "my daughter was an infant when doctors began prescribing medicine and she was misdiagnosed seven times." Carla shared "before the age of 7 months my child had tried nine different medications." Carla said that the medicines did not stop the seizures.

Gina discussed her son's epilepsy:

We would go to the emergency room every month for stitches from him falling while having seizures. The seizures did not cease while on the pharma meds. My son was diagnosed with a rare type of epilepsy. For 16 months the doctors did nothing but give him a frequent cocktail of medicine that did not help stop the seizures and it did not help him at all.

Rain described a similar experience with unsuccessful pharmaceutical medication.

When her daughter was diagnosed the only treatments offered, were chemotherapy and immunotherapy. "By age 8, neither of these therapies had proven successful for her daughter's tumor, and there was a high reoccurrence rate after the treatment was used."

Rain also stated, "she would not allow the doctors to cut into her daughter's head to remove the tumor because the first try was unsuccessful." She states she refused the medical treatment because the doctors did not know what to do, "when I first brought her into the emergency room it literally took them an entire month even to figure out what to do."

Brett and Amy said the prescription pharma medicines made their child unrecognizable at times due to his erratic behavior. Amy stated, "the doctor's continued to increase the of the medicine however, his seizures did not decline."

Side effects. The participants highlighted the side effects of prescribed medicines as another reason they selected medical marijuana as a treatment plan. The side effects were harmful and affected the quality of life of the children. The side effects made children vomit multiple times a day. It made other children become aggressive and

unrecognizable to their parents. Other side effects included constant sleeping and incoherence.

Lena stated, “my daughter did not respond to her own name and could barely lift her head up because she was so darn high.” Carla stated, “my life had become cooking using a ketogenic diet to help reduce the side effects of the medicine and doing dishes, my baby lost weight, he was unable to hold down any foods and he cried all the time.” Brett and Amy stated, “we did not recognize our son anymore; his attitude was of a totally different person. He was a sweet calm boy that turned into a raging ball of anger.” They shared a story about one night when their son completely lost his ability to speak due to the amount of medicine in his system. “At that point, we completely lost trust in pharmaceutical medicines.” “Rain stated, “my daughter was on a liquid diet for 3 months because she was unable to keep in solids while on medication. It was a complete disaster and my entire family suffered watching her suffer.”

Doctor’s limited experience with medical marijuana treatment. The participants each had a child who experienced many challenging symptoms due to seizures. The conditions varied from vomiting to speech loss. The participants explained that many of the conditions were unfamiliar and the doctors had little to no experience providing a medical treatment for the children. Doctors often over medicated children causing severe side effects including inebriation and inability to conduct simple tasks. Doctors prescribed a cocktail of medicines that altered children’s personalities and did not treat the problem. The participants noted that many doctors said that they were not confident about the prescribed treatment plans even while the children were hospitalized or in their direct care. Rain said that,

The doctors had to call all around the world to find out how to treat my daughter's tumor. It literally took them an entire month to figure out what type of tumor it was, and they had to call all over the world to find out how to treat it. I was uncomfortable with the medicines they were prescribing because they were so unsure, I just started staying up all night, because we had been given a very grim prognosis for her and I was determined, I am not going to bury my child. I could not sleep. I was up reading publications I wanted to know what Phar Med showed and how I could find a cure for my daughter.

Lena stated:

While my child was in Children's Hospital in Philadelphia, she had one of the toughest cases to solve, we were at a dead end. I had to share information with the doctors regarding a woman in Chicago who was conducting a trial of treatments using medical cannabis in Philadelphia that might help my daughter. I am raising my hand at 3 a.m. in the morning asking why they did not pick us for that trial. We are right here in their backyard. I had to get on the phone and raise holy hell, and I guess the squeaky wheel gets the grease, because we were put on that medical trial that started with medical cannabis, before the trial, the doctors had no clue of what to do.

Carla explained that,

My daughter was in the pediatric intensive care unit, and the doctors did not know what to do, I was contacted by a parent who was using medical cannabis. I got the medicine sent to me over night and gave it to the doctors to administer to my daughter. The doctors said to me, good this baby deserves a chance.

Parent support. The participants highlighted the support provided by other parents who had selected medical cannabis as a treatment plan. The participants said the other parents were very helpful, providing resources on legal and medical issues. The participants said the support of other parents gave them the courage to select medical cannabis especially in the early years (1995) when it was still illegal to use or own cannabis. Parents provided access and connections to others who were in the process or had been through the process of selecting medical cannabis as a treatment plan. The parents shared resources and supported one another at court hearings and school board meetings. They also gave emotional support for parents who were just beginning the process. The parental support was summarized by Carla:

I distinctly remember receiving phone calls while we were at pediatric intensive care unit at John Hopkins from other parents encouraging me to use medical cannabis as a treatment plan. They were promising me I would not go to jail because I was very worried at first about the legal ramifications of giving it to my daughter. The parents also helped me navigate the legal system and provided advice as to which congressional representative to contact. They shared information regarding where to file petitions for the legal permission of continued use of medical cannabis for my daughter. In addition, they informed me of doctors to contact to get prescriptions for my child to become a registered medical cannabis user.

Brett and Amy shared,

We reached out to a parent who lived in our state that was already using Charlotte's Web for her son. She was documenting her journey with her selection

of medical cannabis in a support group I was in. I asked her one day to share the information with me regarding how to purchase, what doctors to contact to get a script. I already had tons of information because I was following her story. Oh yeah! She also helped us prepare for our school board meeting and stayed up late at night to talk to us about the information we needed.

Legal victories. Four participants credit the passage of state legislation as the primary driver of school policies. Parents worked hard for passage. They had to lobby for the support of local legislators, the support of legislation took months and at times years to obtain. After the legislation was approved it had to be signed by the governor, this process required additional wait time. When the legislation was finally adopted into law, parents in two states realized they had to obtain court orders to compel the school district to create a policy. The parents who were interviewed shared the lengthy and costly process of advocating for state legislation and school board policies.

Lena who resides in New Jersey reported “my husband filed over 17 petitions to the state before he was able to find legislators to help him. The legislators finally offered support; however, the governor of the state was against adopting the bill.” Lena reported it took the governor of her state 134 days before he was convinced and signed the bill.

Brett and Amy live in Colorado, the first state to pass laws permitting medical cannabis. The state also permitted medical marijuana administration on school grounds by a school employee. They said: “We had to use the Rohrabacher Farr amendment” (i.e., the amendment prohibits the Justice Department from spending funds to interfere with the implementation of state medical cannabis laws). Their state was one of the first to allow medical cannabis, however the schools did not comply with the state laws. Brett

and Amy had to go to court to obtain a court order to permit their son to use medical cannabis on school grounds after state legislation was passed. Brett and Amy also said neighboring school districts in the state implemented policies after state legislation was passed and a court order was not required for implementation.

Carla said that her school district was not comfortable developing and implementing a policy, even after the state legislation was passed. Carla stated she joined another parent who was already in the process of obtaining a court order to enforce the medical cannabis law in her school district. Carla shared “I teamed up with the parent and paid the legal refiling fee to have my own child added to the existing court order.” Carla shared that the process of obtaining state legislation in Maryland was lengthy, however she credits the overwhelming voting of yes to the legislation to an incident that occurred in the chamber. Carla recalled the incident:

As I waited to testify for the legislation, my daughter had a seizure. Everyone was able to witness her illness firsthand. I had to administer her medical marijuana treatment right there in the room. I administered oral and topical medical cannabis and the seizure was over in about 45 seconds.

Carla stated only one delegate voted against the legislation, everyone else voted yes.

Carla shared this:

I think a big part of it was they saw what went down. They saw the onset seizure, they heard the onset seizure, and they saw me stop it. When I got up to testify, I did not have to say much, my daughter was nonverbal at that time, but she spoke up for herself that day.

Rain reported that,

We passed senate bill 181 in Delaware, before the law my daughter's biggest concern was when and where she can get her medicine. A senator helped me get legislation passed after hearing my testimony, the senator joined me to get the legislation passed even at the disapproval of many community members. My family got the legislation passed by testifying before law makers and rallying other members of the community that had children with similar medical conditions.

Rain reported:

I knew a few parents said they were against it. So, we passed SB181 and it basically made cannabis legal on school grounds, a lot of parents were against it because they thought kids would be able to get cannabis, I would maybe give it to them, or something. I really do not know why they were against it.

It took her school district almost 2 months to develop and institute policy after the legislation was passed. "We considered getting a court order, but the school district cooperated, and we did not have to obtain an order."

The categories connected to Research Question 1 emerged directly from the data associated with the responses to the interview questions, and they assisted in providing an understanding of the parents' experiences with the implementation of medical marijuana policy in their children's schools. The data were analyzed to uncover emergent themes and to provide a deeper understanding of the factors that were considered for this study.

Themes. The analysis of the data from the interview responses produced three themes surrounding Research Question 1: unsuccessful use of pharmaceutical medicine, parents learning from other parents, and legislation. The three themes provide in-depth

insight into the important factors affecting the implementation of a medical marijuana policy in schools. This will be discussed further in Chapter 5.

Unsuccessful results of pharmaceutical medicine. The unsuccessful use of pharmaceutical medicine emerged as one of the three major themes associated with Research Question 1. The participants highlighted the adverse effects pharmaceutical medicines produced in the children, preventing children from being fully conscious alert, and attentive. The side effects led parents to seek an alternate treatment plan (i.e., medical cannabis). Parents reported that schools displayed empathy for their child's illness, however the schools needed to have the state sanction the use of medical marijuana in schools.

Parents learning from other parents. This emerged as another theme that was related to Research Question 1. The direct support of other parents sharing resources, legal and educational information was an important factor in parents selecting medical cannabis as a treatment plan. The participants referenced the support of other parents in making decisions regarding their child's treatment plan, achieving the legislation, and advocating for school board policies.

Legislation. Legislation was the single most important theme. All participants stated legislation needed to be adopted before schools could develop policies. Often these laws were named after the children identified in the petitions promoting the legislation. Once the legislation was passed, in some states medical marijuana policies could be developed and implemented in schools in a timely manner. In other states a court order had to be obtained before schools would develop and implement a policy. The emergent themes derived from the interview responses associated with Research

Question 1 helped in understanding the experiences of parents with medical marijuana implementation policy in schools. Research Question 2 sought to understand how medical marijuana policy impacts student’s academic achievement.

Research Question 2. Data were collected to answer Research Question 2: How does the medical marijuana policy impact parent’s perception of child’s academic performance in school? Throughout the interviews, one theme emerged: the benefits of school board policy implementation. Table 4.4 displays codes, categories, and themes.

Table 4.4

Codes/Categories/Themes- Academic Impact of Medical Marijuana Policy

Codes	Category	Theme
Support of students, track data, change in academic performance, sustain behaviors, students interacting with peers, increased attendance.	Teacher Reports	Benefits of Policy Implementation
Access to teacher directed lessons, group therapies, more in class time, less home schooling.	Individual Education Plan	
Listening to pleas, offering alternatives, proving grace to families, implementing policy	Board of Education	
Focused on learning, writing complete sentences, talking using complete thoughts, improved attention, can complete assignments	Student Performance	

Table 4.5 displays four categories that emerged from the data as well as the participants who contributed to these categories.

Table 4.5

Academic Impact of Medical Marijuana Policy/Participants Responses

Academic Impact	Participants					Total
	Lena	Carla	Gina	Rain	Brett/Amy	Total
Teacher Reports	X	X				2
CSE Meetings	X	X	X	X	X	5
Board of Education	X	X		X		3
Student Performance		X	X	X	X	4

Teacher reports. Two out of five participants viewed data collection and reports to parents by teachers during the initial stages of the school’s medical marijuana policy implementation as an essential component to improving student’s academic development. Teacher created documents were used to chart the behaviors of the students. It was supplemented by written anecdotal notes of behaviors that recorded the frequency of academic improvements throughout the school day. These academic improvements included increased reading ability, improved handwriting, or improved outcomes on a test. The teacher reports also included social and emotional behaviors. How many times the child had positive interactions with peers? How frequently did the child need teacher prompts to transition from one task to another? How long a child was able to independently attend to an academic task? How often did the child have outbursts in

class? The teacher reports provided information regarding how long the child was consistent with behaviors before a change occurred. They provided crucial information to parents helping to determine the cannabis dosage.

The teacher reports gave parents insight into their child's performance in class. Lena stated "teachers were amazed how alert my daughter had become. She was able to follow single step directions and participate in teacher - directed lessons." Having teachers collect data was beneficial to Carla. The data displayed the benefits of the treatment on her child's behavior. Her daughter had more peer interactions and was able to attend school full day. Parents used the teacher reports to ensure students were getting appropriate dosages. The reports from teachers provided the parents information regarding academic performance, behaviors, peer relations, and how long the dosage sustained the student.

Carla shared that the data from the teacher reports made it possible for her daughter to attend school full day. She was able to use the data to advocate for a full day school program for her child. Participants Brett and Amy shared that the teacher reports were used to help their son's progress to classes that had more academic rigor. The results of these interviews indicated that data collection allowed teachers to communicate the academic, and social behaviors they witnessed in the classroom to parents after the implementation of the policy. This information was critical for parents because it helped determine the dosage and efficacy of MM and it validated the need for a policy.

CSE meetings. Committee on Special Education (CSE) meetings are held to develop individual evaluation plans for students with disabilities. These meetings provide an opportunity for parents, service providers, and teachers to collaborate and create

successful plans. According to all the participants in the study, these meetings offered the opportunity to discuss the medical treatment plan in detail. The meetings were beneficial according to Lena and Carla. They both described the meetings as a collective conversation that provided insight to the policy for all parties. The parents were able to share in-depth information regarding the treatment plans. The meetings also used data collected from the teachers to determine whether to increase or decrease special education services after the implementation of the policy.

Rain stated, “the CSE meetings were a source of support especially because my husband worked at the school.” She shared “it felt like a family meeting, and everyone had my daughter’s best interest in mind when discussing the policy and her daughter’s needs.”

Gina as well as Brett and Amy, all had positive experiences in the initial stages of policy implementation at CSE meetings. The initial meetings were collaborative, and everyone seemed to have the best interest of the children in the forefront. However, both families said that the tone of the meetings changed after the policy was implemented. Brett and Amy shared this:

After policy implementation most of the interactions at the meeting were negative and it became a daunting progress. The school used the opportunity to share what they thought was in the best interest of our child. The school meetings became attack sessions and screaming matches without resolution.

Gina stated “the school does not believe my son has an ability to learn and I am tired of fighting with them. CSE meetings are my least favorite thing to do on this earth.”

Board of education. The board of education is the group of individuals who govern the school district. The board of education adopts the policies and procedures that the district must follow. The board members are typically elected by the community with term limits. Three interview participants highlighted the board of education as helpful to policy implementation. “The board granted access for parents to come on to school grounds and administer the medicine to students, they began the policy right after we obtained legislation” stated Lena.

During the interview, Lena stated, “members of the board of education came to my husband’s funeral to show support to him and all the work he put into passing legislation to get the policy implemented in the school.” She shared that her daughter was able to attend school in the regular academic setting and access direct teacher instruction instead of being home schooled. Carla expressed her concerns to the board of education regarding administering medical marijuana on the school bus. She stated, “they are working together to create a policy for the school bus. My daughter needs her treatment plan available on the bus in case she has a seizure.”

Rain described the relationship between her family and the board of education as supportive and encouraging. Rain stated,

They were receptive to our child’s need and listened every time we had a concern. I believe the board’s support has transferred to my daughter’s classroom performance. She is more focused on her studies knowing she has the support of the board education.

Student performance. Student performance was highlighted by four participants as a positive outcome of the medical marijuana policy implementation. Achievement was

measured by participants based upon individual levels of performance. Some participants expressed student performance using grades. Other participants identified student performance in terms of reading and reciting the alphabet and sight words. A few participants expressed student performance as social self-awareness.

Rain described her daughter's performance as attentive and focused. It resulted in her zeroing in on the work because she also wanted to prove the treatment plan worked. Rain shared "my daughter would strive to get A's because it made my daughter happy." She shared her daughter's grades got better each year and her daughter's grades became the best thing about school.

Gina shared a positive story about her son's improved handwriting. Gina stated "my son's previous handwriting was illegible. His schoolwork was unclear. His performance has improved. His writing is legible. We can hang his writing on the wall and read it."

Brett and Amy highlighted their son's technical ability. Brett and Amy stated this:

He began transferring knowledge learned in school to home projects. He would order 3D printers from Amazon, read the directions, and construct the printers, we were astonished to learn he was able to order items off the Internet and were fascinated by his ability to read the instructions and build the printers.

Carla stated,

We went from our vocalizations increased from our vowels, now we have vowel consonant combinations, we have inflection, we have tonal changes. We get sad when we run and we fall and we crash, but we did not realize that happened before. The physical awareness, the social interactions. She realized we have a

dog. The dog, she can seek comfort in the dog, it is not just a ball of fur that I can climb over, I can cuddle it. I can caress it. She interacts with herself in the mirror somewhat, she is looking at herself in the mirror as opposed to looking through herself in the mirror. By typical parents' standards, those are not huge things. But in our world, that is the sky is blowing up and we are just over the moon with the cognitive progress she has made since the policy implementation.

Benefits of policy. All of the participants considered the actual medical marijuana policy implementation a victory. The participants highlighted the policy as a tremendous positive step in their child's treatment plan. The participants felt that it was a reward for the tremendous amount of time and effort put forth to obtain the legislation required before the boards of education could consider implementation. The policy permitted children to remain in school full days to access direct teacher instruction; leading to increased exposure to curriculum and increased academic success. The policy afforded children same age peer interactions and the opportunity to learn from peers. The policy provided outlets for children who were non-verbal to communicate using assistive technology. The policy gave children access to the medicine they needed during the school day. As illustrated in Table 4.5, data collection, CSE meetings, boards of education, and student performance were essential categories to the theme of benefits of medical marijuana policy.

Research Questions 3. Data were collected to answer Research Question 3: How do parents describe the implementation of medical marijuana policy on their child's social and emotional development? The study allowed the researcher to understand the participant's experiences with medical marijuana policy and its effects on their child's

social and emotional development. Initially interview questions separated social and emotional development. However, the participants' responses intertwined the social and emotional developments into one theme with five categories.

As the interviews progressed, narratives were shared that demonstrated similar experiences. Those shared experiences were coded into categories and resulted in the theme labeled challenges of policy implementation. Table 4.6 displays the codes, categories, and themes that emerged for Research Questions 3. Table 4.7 illustrates the participant responses to each category for qualifying characteristics – social and emotional effects of medical cannabis policy implementation.

Table 4.6

Codes, Categories, Themes- Qualifying Characteristics- Social and Emotional Effects

Codes	Category	Theme
Refuse to administer medicines, testing against implementation policy, refuse to store medicine.	School Nurse Procedures	Challenges of Policy Implementation
Parents administer, no administration on school grounds, missing school, embarrassed, anxiety	Limited Policy	
Feeling isolated, limited sports, cannot support family members on school grounds.	Social Isolation	
Negative reactions, putting up posters against policy, asking for recreational drugs, limited peer interactions.	Outed to Community	
Hurtful post, called a drug dealer, calling child protective services,	Social Media	

Table 4.7

Frequency Chart of Participant Responses- Implementation Policy on Social and Emotional Development

Category	Participants					Total
	Lena	Carla	Gina	Rain	Brett/Amy	
School Nurses Procedures	X	X			X X	3
Limited Policy	X	X	X	X		5
Social Isolation				X	X	2
Outed to Community				X	X	2
Social Media				X		1

Note. The table illustrates five categories that emerged during the interview of all participants for Research questions 3.

School nurses. School nurses are employed to address students’ medical needs during the school day. The medical needs of students range from a band aid for a bruise to administering medication for medical conditions as prescribed by a physician. Findings in this study revealed three out of five participants identified school nurses as a challenge to medical marijuana school implementation policy. Lena described the nurse’s opposition to administering medical marijuana treatment to her daughter as disheartening. Lena stated,

The nurses stated they were not licensed to administer the drug. I tried to add the nurses to the legislation to legally require them to administer the treatment plan. I was unable to add the wording to the legislation.

Carla expressed it was essential to have the nurses administer the treatment to students. Carla stated,

There are two nurses that testified against the legislation. At that time, the bill had stated that nurses would administer, and we changed the wording of the bill to school staff would administer. In my state there is a law, a clause, or something that states if a nurse administers medical cannabis to a medical cannabis patient, she cannot be stripped of her licensure. So, nurses were already protected. But some of them were nervous because they are the front-line medical administrator within the school system. I did not want to put anyone in a position that they felt everything they worked for in their life, their degree, their clinical certifications could be at risk. That is one reason we changed the wording of the legislation to staff, the other reason that we changed it to staff is access on a school bus. My daughter is going to need a one-to-one aide, she is going to have a one-to-one with her, but that individual does not have to be a nurse. But that individual must be able to administer cannabis so the fact that any school personnel can administer it, as opposed to just limited it to nursing staff, I think was an important part of the bill.

In another statement, Brett and Amy acknowledged:

All the schools within our county share 30 nurses. So, one nurse travels between all those schools and whatnot. Nurses are shared within the elementary, middle, and high schools. The nurses do not actually do any administering of any medications.

Amy stated:

We did not know nurses were not administering medicines, we found this out during the question process in the legal hearing. The medicine process is delegated to the front office people at the school. They are non-licensed; I believe this is the school's way of getting around how the medications are being administered. The schools can say to parents, if something happens, you elected to have the medicine administered by a staff member. It is almost like it is a way for the nurse not to get in trouble.

Limited policy. All participants addressed the major barrier of policies that require them to travel to campus every day to administer the treatment. Parents interviewed had flexible schedules that permitted them to go to campus daily. However, they all shared the feeling that it was inconvenient. Additionally, some policies allowed MM to be stored in the nurse's office along with other medical treatments. Other policies required that the medical cannabis be brought to school grounds by the individual administering the treatment to the child. Lena stated,

The policy was fine when I was a stay-at-home mother, I was able to set my schedule around her treatments and I was able to drive 30 minutes each way to campus daily, pull her out of class, and administer the medicine. After the passing of my husband, I had to become employed, and I am unable to go to campus to administer the treatment anymore.

Carla stated,

I am self-employed so I can go to campus every day, but it impacts my other children's activities and my ability to complete many tasks throughout the day.

My older children have games and activities that I often miss because I must make my daughter's treatment a priority.

Gina, who is self-employed stated,

I can go to campus to administer the treatment; it has been difficult to adhere to the current policy; that is why I am transferring my child to a private school that will allow on-campus administering of his treatment plan by a staff member.

Rain, who is self-employed stated:

I must pause my work schedule and drive to the school campus to administer her medication every day. I would go to the school and check her out. I would have to check her out of school and then walk her off school property where I would have my car parked, give her the medicine, and then walk her back to school. The whole thing would take about 45 minutes. Normally, if you take a kid out of school, they mark that time off, but her school was supportive, and even though I would mark her out, they never counted any of that time against her.

Rain's daughter was attending the middle school that was a 12-minute ride from home in each direction. Rain's daughter would be attending a high school that is 35 minutes away in each direction. She expressed concerns about the increased distance becoming a challenge. Brett and Amy shared that Brett was self-employed and went to campus to administer the medication to their son. Amy worked and her schedule did not permit her the flexibility to go to the school daily to administer the treatment plan to their son.

Brett stated:

I am frustrated with the current policy; I went to the school accompanied by the sheriff and placed the medical cannabis on the principal's desk and informed him he was violating my son's rights and impacting his social and emotional development by having him singled out to take his medicine every day.

Brett was visibly upset during the interview regarding the policy. Brett shared.

I am frustrated with the current policy. I am suing the principal and the superintendent; I have a legal right to leave my son's medicine on campus and my son has a legal right to have his medicine administered to him like every other child in the school building.

The parents shared their frustrations as taxpayers and community members in the district. The parents were all initially happy, because after legislation passed a board of education policy was developed and implemented. However, three participants said that they were seeking to have the policy reviewed to include administration by school personnel.

Social isolation. Two participants reported that their children felt isolated and different from peers because they had to leave class every day and report to their parents to receive their medicine. Rain stated,

My daughter wants to go to the nurse like the children with asthma or other illness, my daughter is isolated on sport teams and is afraid her peers will tease her. My daughter told me classmates would see me out the window and they would either wave or they would be like why do you go outside the school all the time. It was the same time every day, I would take her out of one class because

that was the time I had scheduled to come and I never wanted to disrupt her lunch because that is her social time, so I would try to get there at the end of a class or try to get the timing right.

Also, Rain shared that her daughter has no visible signs of a disability and lives a typical teenage life, that includes friends, outings, and social activities. “My daughter is at the age where she is conscious of her image and the thoughts of her peers’ matter to her.”

Brett and Amy revealed that,

Our son is not happy when we arrive daily, he feels singled out, often seeks the support of his older siblings in the school. He is a high school boy with peers who respect him. He plays sports and does not like to be singled-out, however he has plenty of friends and he is very busy. He is involved in the state sport of Colorado and he is highly known. We just had a book written about him and his story was written in the New York Times, because he has overcome all the things he has, his friends are far and wide. It is amazing, the support he has and the people who love him. He has been an incredible example of perseverance in a situation where most people would have folded up because this is about the ability of having strength to stand up to something that is so big and has so much power, it is almost a bully scenario where they are trying to wear you down and hope you just quit.

As a final point, Brett expressed that they were currently suing the school to change the portion of the policy that requires parent administration of the medicine.

Outed to the community. Two participants addressed what they called being “outed to the community” this is when the families go public about their selection of a medical marijuana treatment plan. Participants had to engage in a legal process to obtain the legislation required for schools to implement a medical marijuana policy. When participants began the legal process, it was reported in the local newspapers. The names of the participants were listed in public court documents. The information was also included in the school board minutes after the legislation was passed, the policy created and approved. As a result, the community was aware of the choice of treatment plan and began vocally expressing their concerns about administering cannabis on school grounds.

Rain stated after she was “outed;” her family received criticism from the neighbors and others in the community. She described her daughter’s experiences as follows:

My daughter’s face was used in health classes on anti-drug posters, she was asked by peers to buy or sell drugs to them, my daughter became shy and withdrawn for a lengthy amount of time. She was quiet and afraid to talk to peers. She did not know who to talk to in school. My daughter is nationally recognized for her medical cannabis advocacy and my daughter does not trust the intentions of many of her peers.

Over the course of the interview, Rain shared that,

I was in our community grocery store with my daughter and a person in the store screamed at her across the store yelling “You are a drug dealer! You are a horrible parent for giving your child drugs! You should be put in jail!”

She expressed that she and her daughter were emotionally scarred for a long time following the incident. Brett and Amy shared,

Our son has friends, and he stays busy, he is highly conscious of how people respond to him. He often feels he must tackle adults who are upset because of his medical treatment. A child should not be afraid to interact with adults because of their medical treatment. We assure him we will address all adults on his behalf.

Social media. One participant associated social media as a deterrent to their child's social and emotional development. Social media has become an outlet for unwarranted opinions and bullying at times. Social media platforms can be very hurtful to adults and more damaging for children. Rain stated her child was subject to negative comments regarding the policy on social media platforms. She highlighted the comments on social media as a form of bullying. It caused her daughter to have anxiety, and loss of some peer relationships. Rain stated,

I had to file a cease-and-desist letter to the neighboring school district because they were using images of my daughter in their curriculum. They were posting images of my daughter on social media and around their schools. The images portrayed my daughter as a druggie and cautioned students to stay away from her. I had my lawyer immediately serve the school district the letters to stop but the damage was done.

Rain shared that her daughter was bombarded with the images on her social media platforms and many of her daughter's friends shared the photo and images with her daughter. She stated "my daughter developed anxiety and it became difficult for her to trust peers. She lost confidence in herself and had to attend therapy."

Summary of Results

This study used a qualitative research narrative study to obtain in-depth perspectives of parent's experiences with medical marijuana implementation policies in K-12 schools. A narrative approach was used to understand attitudes, beliefs, perceptions, thoughts, and experiences. The qualitative research method, using semi-structured interviews allowed the collection of data. The open coding process resulted in a vast amount of information outlining various coded characteristics that supported the personal narratives and experiences by the interview participants. The categories which emerged from this coding process were aligned with the three research questions. The codes, categories, and themes that emerged from the interviews correspond to the experiences connected to participants' perceptions.

The emerging themes for Research Question 1 were: a) unsuccessful use of pharmaceutical medicine, b) parents learning from other parents, and c) legislation. The responses to the interview to Research Question 2 produced four categories and one theme – the benefits of policy implementation. Responses to Research Question 3 also produced one theme Challenges of MM policy. It emerged from four categories. Lastly, the findings described the order of events leading to the implementation of cannabis policy in schools. It begins with unsuccessful experiences with prescribed pharmaceutical medicine, followed by the choice of medical marijuana as a treatment plan, and the most significant finding, the need to pass state legislation before a school board policy can be developed and implemented in some districts. This is in addition to the need to obtain a court order for implementation after state legislation is passed other districts. Another

theme that emerged were benefits of current medical marijuana policy. The last theme that emerged was challenges of medical marijuana policy.

Chapter 5: Discussion

Introduction

This chapter provides a discussion of the implications of this research. It also describes the limitations of the study and provides recommendations for further research. Finally, it summarizes the research and offers a conclusion. The research explores the experiences of parents of students diagnosed with medical conditions such as ADHD and epilepsy who have chosen MM as a treatment option. Their choice to have medical marijuana administered in public schools has created difficulties for state and federal lawmakers, students, school districts, and parents/guardians (Terrell, 2016). Thompson (2015) posited that medical marijuana benefits the lives of many people who suffer from life changing illnesses, such as multiple sclerosis, epilepsy, autism, and glaucoma. Parents who have selected MM treatment are requiring schools to allow the administration of the medical marijuana treatment during the school day. The students who require a midday dosage of MM require a school policy to receive the treatment.

Medical marijuana policy is rapidly evolving in the United States. Marijuana sales are legal and regulated in some jurisdictions, and the use of the drug for medicinal purposes is permitted in many others. Parents of children with epilepsy and ADHD have explored MM and CBD as treatments. In most cases, MM is prescribed and used in the form of a plant or an oil, that the patient can ingest either through food or drink.

Parents and school districts across the country face similar problems as more people turn to MM to treat their sick children, often after pharmaceutical remedies have

failed. State governments must decide whether to approve a law that would allow the administering of MM to kids at school, setting up a potential conflict with the federal government. At risk is potential criminal liability as well as the potential loss of federal funds, including money for school breakfasts and lunches for low-income students, for violations of the federal drug-free school zone mandate.

Of the 33 states and Washington, D.C., that have legalized medical marijuana, at least seven have enacted laws or regulations that allow students to use it on school grounds, in part because doing so could risk their federal funding. So far, the federal government has not penalized any of the seven states.

New Jersey, Maryland, Delaware, and Colorado permit parents to give their child non-smokable medical marijuana at school. This summer, Colorado expanded its law to allow school staff to administer the medication. Washington and Florida allow school districts to decide for themselves whether to allow the drug on campuses. Maine expanded state regulations to permit MM administration at school. However, because it is still illegal under federal law a doctor may prescribe the drug and recommend a dosage, an exact dose cannot be prescribed.

Nationwide, families have been negatively affected by their children's school's refusal to allow staff to administer prescribed MM to students (Jacobson, 2018). As a result, students are prohibited from receiving their prescribed medication while receiving a public education. Some schools have implemented policies that require students to go home in the middle of the school day to take their medication, meaning, these students often complete only a half day at school. When students are denied their prescribed medication, or they must leave in the middle of the school day to take their medication,

their daily routine is disrupted, and their academics and social-emotional development suffer (DeNisco, 2016).

Parents' choice to select MM as the treatment for their children has been a topic of discussion for over a decade. This study validates the need for school district leaders and policy makers to include parent voice in the development of medical marijuana policies in schools, to ensure that all students have access to their prescribed treatment plans. This study highlights the experiences of parents who have selected medical marijuana for their children who are diagnosed with epilepsy and/or ADHD. Children who have been diagnosed with these conditions have benefitted from the use of medical marijuana as a treatment (Wiederman, 2017). This study explored the implementation of MM treatment plans in New Jersey, Maryland, and Colorado school districts and parent's perspectives on their children's academic, social, and emotional functioning (Burke & Goldman, 2015).

The significance of this study is the data it provides to inform medical marijuana policy decisions both at the state and school level. The experiences of parents can provide guidance to school districts to ensure policies are created with an equitable template to allow students greater access to K-12 instruction and school sponsored recreational activities. This study can inform parents of the inherent conflict between federal and state law. Some state law permits the use of MM with a doctor's prescription. Other state legislation says medical marijuana is legal for both medicinal and recreational purposes. Federal law states under the Drug Free School and Community Act (enacted 1989) marijuana use strictly forbidden on school grounds (Norwood, 2018).

The study answered the following research questions:

1. Given current medical marijuana policies, how do parents describe their experiences implementing their children's treatment plans?
2. How does medical marijuana policy impact parents' perceptions of child's performance in school??
3. How do parents describe the implementation of existing medical marijuana policy on their child's social and emotional development?

The five participants in this study were all parents of children classified with a disability, who collaborated with school districts to create a medical marijuana policy. The population for this study consisted of the parents of five children who attend New Jersey, Maryland, and Colorado schools and have chosen treatment plans for their children. New Jersey, Maryland, and Colorado were the chosen locations because they have legalized the use of medical marijuana. These states also specifically permitted the administration of medical marijuana in K-12 public schools. The following questions were qualifiers for participation in the study:

1. Do you have a child or children of K-12 school age?
2. Have you selected medical marijuana as a treatment plan for your child?
3. Do you have children who attend school in New Jersey, Maryland, or Colorado?

After the interviews were conducted, an electronic program was used to transcribe each interview. Once the interviews were transcribed, they were read for accuracy before being analyzed. To analyze the data detail, preliminary characteristics were developed and identified. The coding scheme was developed using open coding, and axial coding. Selective codes were created by connecting and consolidating axial codes. These codes were abstracted from the evidence produced from the data. Categories and themes

became apparent from the analysis of the interview data and were constantly refined until a generalized pattern of the participants' views were established. The interviews were rich and full of ideas, the most prominent categories were selected. Originally there were four research questions however, interview responses associated with Research Questions 3 and 4 often overlapped. Specifically, some participants merged social and emotional characteristics. The overlaps will be discussed in this section.

The results of this study reveal five major themes based on responses to the three research questions. The themes that emerged were a) unsuccessful use of pharmaceutical drugs, b) parents educating parents, c) legislation, d.) school policy benefits, and e) school policy challenges.

Unsuccessful results from pharmaceutical medicines – parents shared their experiences with pharmaceutical medicines' adverse effects on their children and how those adverse effects led to them to seek alternative medical treatment plans. The findings associated with this theme included pharmaceutical medicines unable to provide a cure, physicians' uncertainty regarding the course of treatment and their lack of experience with MM treatment. The parents outlined the effects of prescribed pharmaceutical medicines on their child's academic, social, and emotional development. The participants also spoke of children acting "high", experiencing personality and behaviors changes and "always sleeping."

Parents educating parents - parents turn to other parents seeking knowledge and support to begin the journey of selecting MM treatment. The findings associated with this theme include parents support of each other, parents outlining a blueprint of success with obtaining legislation and school policy.

Legislation - parents seeking legislation to get MM administration policies in schools. The findings associated with this theme describe the need for parent petitions to policy makers for legislation to allow MM administration policies in schools. The finding also shared the inconsistent federal and state laws that create a barrier for parents to obtain policy implementation.

School policy benefits -the success associated with school medical cannabis policies is substantial. The findings associated with this theme include policy implementation victories, schools adopting a policy, teachers, and school staff supporting the parents' choice. Students having the ability to participate in a full school day resulting in increased social interactions with peers.

School policy challenges - the barriers that exist with the current policies are highlighted in this theme. The findings include parents coming to school every day to administer the treatment to their children. School nurses who petition against administering the medicine to students. Students who feel isolated from friends because they are singled out while receiving their medical treatment from their parent (i.e. unable to go to the nurse's office to receive their treatment like their peers). A key finding in this theme is children being targeted as drug users or being shamed in anti-drug campaigns.

Implications of Findings

The findings of this study are significant because they highlight the voices of parents of children receiving MM treatment. These findings add to the ongoing conversations about administering MM in K-12 schools.

For parents, this study provides narratives about experiences working with school district's medical cannabis policies. It demonstrates the need for state legislation as a

precursor to developing a school board policy. This is a lengthy process. For example, one participant said it took 134 days to have the legislation approved and signed by the state governor. This legislation wait time was in addition to the time expended advocating for support from local officials. Other findings attest to the need for support from other parents. They provide vital information and valuable resources. The findings also describe some of the challenges of advocating for state legislation to implement a MM school policy. These include possible community bullying and the potentially negative impact on students' academic, social, and emotional development. This information should be helpful to parents and school officials when making informed choices regarding medical cannabis policy implementation in schools.

For school policy makers, this study should help to inform the process of developing a medical cannabis administration policy. The study details the experiences of parents and highlights the benefits and challenges of medical cannabis policy implementation. The study presents narratives that describe parents' experiences and includes examples of the continuous support parents received from the teachers and professionals who work directly with their children. The support in the classroom provided valuable academic, social, and emotional performance data that was helpful in determining the correct dosage. A major restriction of these school policies was the provision that required parents to personally administer the treatment to students. This is an area that needs more consideration. The resistance of school nurses who testified and refused to administer the MM treatment plan also need to be discussed and addressed. Hopefully, the findings from this study will be the catalyst for future studies centered on the implementation of medical cannabis policies in K-12 schools.

For parents, the findings demonstrate the “tug of war” between federal and state laws. Federal law continues to categorize medical marijuana as a classified drug and does not recognize it as a medical cure. Additionally, it precludes administration or possession on school grounds. Currently, 33 states and Washington D.C. have legalized medical marijuana use. New Jersey, Maryland, and Colorado, in violation of federal mandates, have allowed MM use on school grounds for treatment of students. State legislation and doctor’s prescriptions provide hope to parents regarding MM school policy implementation. However, this hope is dimmed when school board policies are limited and often require a court order for implementation.

Major finding 1. Parents turned to medical cannabis only after traditional FDA approved medicines failed to help their children. The side effects from traditional FDA approved medicines made it difficult for children to perform daily academic and social. The participants used language such as “zombie” to describe children who were not alert and unable to conduct basic daily tasks. The participants described students as being “high” and sleepy at times. The side effects caused sickness like vomiting and mood changes in the children. The participants noted children were not able to participate in school due to incoherence. They were unable to follow simple commands. The participants highlighted the stress the medication caused on the entire family.

These side effects from FDA approved medicines described by parents are outlined in the literature which promotes the use of medical cannabis after pharmaceutical methods have been unsuccessful (Carbone, 2018). Parents reported improved quality of life and a sense of normalcy after using medical marijuana (Klumpers et al., 2012). In future studies when the topic of medical cannabis is

discussed, it will be necessary to emphasize the side effects of prescribed FDA approved drugs to ensure it is understood that all drugs have positive and negative side effects.

Major finding 2. State legislation is needed before a board of education policy will be considered for K-12 public schools. DeNisco (2016) stated that as states continue to pass legislation to legalize medical marijuana, parents are trapped in a political “tug of war” between federal and state laws. This finding was unexpected. Prior to the interviews, the researcher expected to gather rich information regarding policy development and the experiences associated with a parent-school partnership resulting in the creation of a medical cannabis policy in K-12 schools. The findings from this study reveal state legislation is the gateway to the development of a school medical cannabis policy. The participants shared experiences about the process needed to advocate for and pass the necessary state legislation. The participants’ experiences included extensive paperwork and funding associated with developing, advocating, and passing the legislation required before the schools would even begin to discuss medical cannabis policies. Participants state that they felt victorious when the medical cannabis state legislation was approved. It led to the creation of a school district policy. When asked if the process of policy development was collaborative, participants answered “no.”

The researcher concurs with this finding: legislation must be in place before a school policy can be developed. The parents needed to be resilient to continue to fight for state legislation. The parent participants outlined the arduous process it took to pass legislation. One participant described an episode when her child had a seizure in the middle of a legislative hearing. She administered the medical cannabis treatment in the hearing room, demonstrating its benefits and the need for medical cannabis policies in

schools. The participant believes that incident led to the overwhelmingly positive legislative response resulting in the passage of a medical cannabis bill in her state. This incident reinforces the need for additional studies to help doctors, policy makers, and school districts unify.

Major finding 3. There are many benefits and challenges of policy implementation. The themes of school policy benefits and school policy challenges were derived from responses to the last research question. The theme entailed the categories of school board members, peer interactions, nurses, and community response and interactions. The categories presented the largest victories and challenges for participants. All participants spoke about the excitement they experienced when the school board finally adopted a policy to allow the administration of medical cannabis on school grounds. The policy allows students to remain full time in a school community with uninterrupted academic and social opportunities.

This finding is connected to the theme that reflects the challenges presented by school nurses who testified against the policy and refused to administer the treatment to students. This resulted in policies that were adopted requiring parents and caretakers to go to school to administer the medicine daily. One participant noted going to campus was easy when she was a stay-at-home parent, however after the passing of her husband she had to work. She was no longer able to administer the medicine. Another challenge arose when children were labeled as drug users by peers and community members. A participant explained that her daughter experienced rising anxiety because of her fear to be known as “the girl who used medical cannabis.” The participant also identified the isolation her daughter felt every time she had to leave the classroom to receive her

medical cannabis treatment from her mother instead of going to the nurse like her peers. Her mother who is a business owner can come to school and administer the treatment plan because she was able to create her own schedule and block out the time.

Unexpected finding 1. Research participants identified as self-employed. The self-employment offered the freedom to create their own schedules. This allowed for compliance with medical cannabis school policies that required parents to administer the treatment. Four out of six participants identified as business owners. There were no questions asked about the type of business; these items were disclosed as part of the conversations. The business owners shared the information to explain how they were able to comply with school policies that required them to go to school daily to administer the medical cannabis treatment plan. The participants shared that although the policy was inconvenient it was something they could manage.

Unexpected finding 2. Research participants shared the joy they experienced after obtaining state legislation for the implementation of a medical marijuana policy. In some states that joy was short-lived due to the federal law that classifies medical marijuana as a schedule 1 drug. Participants had to obtain a court order to enforce the state legislation in their school districts. The disconnect between federal and state law poses a disconnect on the school level. Many school officials want to follow the state law and help children to maximize their academic, social, and emotional experiences in school. They are fearful of the consequences of violating federal regulations.

Limitations

This section addresses the limitations and delimitations of this study. The limitations are influences that the researcher cannot control. The delimitations are conditions that are controlled and influence the design and outcome of the study.

One limitation is that all the participants in the study have a degree of connection to the researcher. They are known by someone who referred them to the researcher. An individual was referred by someone in a parent group or someone connected to legislation involving medical cannabis policies in the K-12 public schools. This demonstrates a degree of self-interest by the participants to share their journey with the researcher. Another limitation is parents participating in this study are all from suburban school districts.

Another limitation was the sample size which impacts the ability to generalize the findings. The occupations and the resources of participants produced similar narratives. This limitation suggests that individuals with resources will have similar narratives. Therefore, the findings cannot be generalized to all parents who choose medical cannabis as a treatment. There are additional factors that impact the implementation of medical marijuana policies in K-12 schools.

A delimitation of this study required that the participants be parents who selected medical cannabis as a treatment plan for their children. This requirement was necessary to address research questions and to explore the perceptions of parents with the implementation of medical cannabis policies in K-12 schools. The researcher wanted to explore parent's experiences when collaborating with their children's schools. A careful and collaboratively developed medical cannabis school policy will promote academic

success and foster healthy social and emotional experiences leading to positive student outcomes.

Recommendations

Three recommendations for future practice involving parents' experiences with medical cannabis implementation policy in K-12 schools are outlined in this section. The recommendations, based on the findings, offer considerations for addressing parents who are employed and do not have the needed resources as well as strategies to address the resistance of school nurses.

Recommendation 1. The participants in this study live in suburban towns and their children attend suburban school districts. These participants have the financial resources to pay the legal fees to influence state legislation. Eighty percent of the participants are also self-employed. The flexibility of self-employment allows them the time to go to school and administer the treatment in compliance with current policies. Future studies should include participants from urban and inner-city school districts. The study could target a sample of parents who do not have the financial resources or the schedule flexibility to adhere to the current school implementation policies. A future study could also address the successes and barriers of implementing a policy in urban school districts – how parents collaborate with the school board, school leadership, and schoolteachers. The study should include a description of the parental resources that would be available to influence state legislation. Parents who live in urban school districts face a unique set of challenges (McNelly, 2009). The recommended study could offer strategies to parents of students with MM treatment plans. It could also be an outline for school district decision makers. This recommended future study could lead to

a comparative study of the process for obtaining MM policies. outlining the need for consistent school policies across states to ensure equitable practices for all students.

Recommendation 2. According to these results future research should explore the rationale that causes school nurses' resistance to administering medical marijuana in schools. Brusie (2020) notes the law HB19-1028 which grants school nurses the permission to administer medical cannabis to students on school grounds in Colorado. The findings suggest school nurses may be hesitant to administer medical marijuana because the prescriptions lack recommended doses. Additional findings which are supported by the literature suggest nurses may be hesitant to administer medical marijuana because of moral convictions regarding children's use of the drug (Kondrad & Reid, 2013). A study to explore the perceptions of nurses regarding the administration of medical cannabis in schools would be beneficial to the progress of policy development. There is currently confusion regarding who is responsible for administering the medical marijuana treatment plan. A study might resolve that issue and provide the perspectives of school nurses. In all states, the federal law prohibits the possession and use of marijuana on school grounds (Pereira, et. 2020).

The current policies in the school districts under study require parents to administer the MM treatment. The participants agreed that the current policies are inconvenient to the entire family. They also cause emotional and social stress for the children who feel isolated, singled out when their parents come to school daily. School nurse administration would allow students to feel a sense of normalcy and belonging. Under certain conditions, school nurses provide treatment for other children. Those can

receive their medication in the nurse's office. The process is built into their daily school routine, limiting time out of class and instructional time lost.

Recommendation 3. To ensure medical marijuana policies for all states are aligned, efforts must be directed towards revision of the existing federal laws that classify marijuana as a drug and prohibit the use and possession of the drug on school grounds. Some state laws permit the use of MM for recreation and medical purposes. Some states also permit the use of MM on school grounds as a treatment plan. To date the federal government has imposed any penalties on these states. This passive acceptance needs to be codified.

Conclusion

Parents and school districts across the country face similar problems as more people turn to medical marijuana to treat their sick children, often after pharmaceutical remedies have failed (Norwood, 2018). The goal of this study focused on parent's experiences with medical marijuana implementation policies in K-12 schools. The purpose of the study was to highlight the personal experiences, successes, and challenges faced by parents. A qualitative narrative study design was used. It included a three-dimensional approach involving continuity (past, present, and future), situation (physical places), and interaction (personal and social). A narrative approach was used because it follows a chronology of events and situations. The researcher used semi-structured, open-ended interview questions to collect data from participants. The participants included in the study were parents who selected medical cannabis as a treatment plan for their children.

A combination of various coding approaches was used to analyze, and cross-analyze data. The analysis of the data collected from the interview question responses assisted in answering the research questions connected to the problem statement. In this study, the participants responded to three research questions that explored the experiences of parents who selected medical cannabis as a treatment plan and implemented a medical marijuana policy their child's school.

The lived experiences of these parents will contribute to the literature by focusing on the factors that impact the development and implementation of medical marijuana policies in K-12 schools. In most cases, medical marijuana is prescribed, and the dosage is suggested by doctors. Medical marijuana is commonly used in the form of an oil (cannabis oil), that the patient can ingest either through food or drink. The issue arises when students are prescribed a recommended dosage of medical marijuana that requires administration during the school day. Schools must comply with the federal and state laws to qualify for state and federal funding. The funding issues become complicated when the federal and state laws conflict. Public schools must make a choice in some cases: Do we support our students' parents and provide the treatment plan of choice, or do we comply with federal funding regulations and limit the use of medical marijuana in our schools (Terrell, 2016)?

New Jersey, Maryland, and Colorado are states that permit the administration of medical marijuana in its public schools. Governor Chris Christie's bill A4587 was inspired by a parent from Maple Shade, New Jersey. This parent sought legal recourse to use cannabis treatment on school grounds after her request was denied by the school district (Livio, 2019). The bill was adopted in November 2015 making New Jersey one of the pioneer states permitting medical marijuana administration on school grounds. A similar process was used in

both Maryland and Colorado to develop policies in public schools. This study provides an in-depth understanding of the experiences of parents who collaborated with school districts to develop and implement medical marijuana policies.

This study identified the adoption of state legislation as the key factor in achieving a medical cannabis policy in schools. It also discovered that parents selected medical marijuana as a treatment plan due to the adverse side effects of FDA approved medications. This study found that parents supporting other parents was an influential factor in the selection of a medical cannabis treatment. The parent online and in-person support afforded the study participants an opportunity to learn about the successes and challenges of trying to implement a medical cannabis policy in schools. This study outlines the benefits of a thoughtful medical cannabis school policy. These include increased time in school for students, opportunity for data collections, improved academics, increased awareness by the board of education, and collaborative meetings. This study also detailed challenges presented by the current medical cannabis school policies. These include parents administering the treatment, lost instructional time, and social and emotional impacts on the children.

The findings from this study, reinforce the need to incorporate the voice of parents in the development of medical cannabis administration school policies. A collaboratively developed policy would decrease some of the social and emotional stress children were experiencing and increase parental support and compliance. Additionally, there is need to understand why school nurses are opposed to administering medical cannabis to students. This disconnect between parents and school nurses can cause harm to medically fragile students. Also included in recommendations is a call for the

examination of the perspectives of urban parents. This study also cites the need to development consistent federal and state laws that can be the blueprint for medical cannabis policies in schools and ensure equity for all students regardless of financial status or resources.

This research study is not only about parents' experiences with the implementation of a medical marijuana policy. It is also about increasing awareness of medical marijuana as a treatment for students. Medical marijuana is rapidly becoming legalized in the United States and parents who have had adverse effects with other treatments are selecting the treatment plan. The connections between parents and schools increase the likelihood of positive outcomes for students. Therefore, school policy makers and parents must be intentional about creating policies that address the needs of all.

References

- Ammerman, S., Ryan, S., & Adelman, W. (2015). The impact of marijuana policies on youth: Clinical, research, and legal update. *Pediatrics*, *135*(3), e769-e785. doi: 10.1542/peds.2014-4147
- Bellano, A. (2015, November 10). *Medical marijuana oil now permitted for special ed students at schools under state law*. Retrieved from <https://patch.com/new-jersey/cinnaminson/medical-marijuana-oil-now-permitted-special-ed-students-schools-under-state-lawm>
- Boehnke, K. F., Gangopadhyay, S., Clauw, D. J., & Haffajee, R. L. (2019). Qualifying conditions of medical cannabis license holders in the United States. *Health Affairs*, *38*(2), 295-302. Retrieved from <https://healthaffairs.org/doi/full/10.1377/hlthaff.2018.05266>
- Bostwick, J. (2012). Blurred boundaries: The therapeutics and politics of medical marijuana. *Mayo Clinic Proceedings*, *87*(2), 172-186. doi:10.1016/j.mayocp.2011.10.003
- Bridgeman, M., & Abazia, D. (2018). Medical cannabis: History, pharmacology, and implications for acute care settings. *National Library of Medicine National Institute of Health*, *42* (3), 180-188.
- Brooks-Kayal, MD (2021). Children's Hospital Colorado: Medical Marijuana and Epilepsy What we share with families at Children's Colorado retrieved from <https://www.childrenscolorado.org/conditions-and-advice/marijuana-what-parents-need-to-know/medical-marijuana/medical-marijuana-and-epilepsy/ved>
- Brown, J. (2018, June 18). School nurses can treat students with medical marijuana, thanks to law- green-lit by Governor Hickenlooper. Retrieved from <https://www.newser.com/story/260457/one-state-now-lets-school-nurses-give-medical-pot.html>
- Burke, M., & Goldm <https://www.newser.com/story/260457/one-state-now-lets-school-nurses-give-medical-pot.html>lan, S. (2015). Family-school partnership among culturally and linguistically diverse families of children with disabilities. *Caise Review*, *1*. doi: 10.12796/caise-review.2015v3.002
- Brusie, C. (2020). New laws allow school nurses to give medical marijuana to students in Colorado. Retrieved from <https://nurse.org/articles/school-nurses-give-marijuana-cbd-to-kids-colorado/>

- Carbone. (2018). Best of the rest: Medical marijuana effective but costly? *Lippincott's Bone and Joint Newsletter*, 24(3), 34. doi:10.1097/01.bonej.0000530859.85438.6d
- Center for Disease Control. (2018): Is marijuana medicine? Retrieved from <https://www.cdc.gov/marijuana/faqs/is-marijuana-medicine.html>
- Clandinin, D. (2007). *Handbook of narrative inquiry*. Thousand Oaks, CA: SAGE.
- Corbin, J., & Strauss, A. (2015). *Basics of qualitative research*. Los Angeles, CA: Sage.
- Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed method approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: Sage Publications.
- DeNisco, A. (2016, March). *Schools wrestle with medical marijuana: Colorado and New Jersey permit certain students to receive treatment*. Retrieved from <https://districtadministration.com/schools-wrestle-with-medical-marijuana-policies/>
- Devinsky, O., Marsh, E., Friedman, D., Thiele, E., Laux, L., & Sullivan, J., . . . Cilio, M. R.. (2016). Cannabidiol in patients with treatment-resistant epilepsy: an open-label interventional trial. *The Lancet Neurology*, 15(3), 270-278. doi: 10.1016/s1474-4422(15)00379-8
- Gonzalez, R., & Swanson, J. (2012). Long-term effects of adolescent-onset and persistent use of cannabis. *Proceedings of The National Academy of Sciences*, 109(40), 15970-15971. doi:10.1073/pnas.1214124109
- Greener, M. (2018, September 14). *Are patients taking pot luck with cannabis*. Retrieved from <https://www.prescriber.co.uk/article/are-patients-taking-pot-luck-with-cannabis/>
- Grinspoon, P. (2018, August 24). *Cannabidiol (CBD) — what we know and what we don't*. Retrieved from <https://www.health.harvard.edu/blog/cannabidiol-cbd-what-we-know-and-what-we-dont-2018082414476>
- Groce, E. (2018). The health effects of cannabis and cannabinoids: The current state of evidence and recommendation for research. *Journal of Medical Regulation*, 104(4), 32.
- Gupta, S. (2013, August 8). *Why I changed my mind on weed*. Retrieved from <http://www.cnn.com/2013/08/08/health/gupta-changed-mind-marijuana/>
- Gupta, S. (2014, April 20). *Sanjay Gupta: Time for a medical marijuana revolution*. Retrieved from <https://www.cnn.com/2015/04/16/opinions/medical-marijuana-revolution-sanjay-gupta/index.html>

- Habib, G., & Artul, S. (2018). Medical cannabis for the treatment of fibromyalgia. *Journal of Clinical Rheumatology*, 24(5), 255-258. doi: 10.1097/rhu.000000000000070
- Hadland, S., Knight, J., & Harris, S. (2015). Medical marijuana: Review of the science and implications for developmental pediatric practice. *Journal of Developmental and Behavioral Pediatrics*, 36(2), 115-123. doi:10.1097/dbp.0000000000000129
- Hakalovic, A. (2016). Chalk talks – marijuana and public schools – the talk has changed. *Journal of Law and Education*, 45(3), Summer. Pages 1-10
- Hausman-Kedem, M., Menascu, S., & Kramer, U. (2018). Efficacy of CBD-enriched medical cannabis for treatment of refractory epilepsy in children and adolescents – An observational, longitudinal study. *Brain and Development*, 40(7), 544-551. doi: 10.1016/j.braindev.2018.03.013
- Hirst, R., Watson, J. S., Rosen, A., & Quittner, Z. (2018). Perceptions of the cognitive effects of cannabis use: A survey of neuropsychologists' beliefs. *Journal of Clinical and Experimental Neuropsychology*, 41(2), 133-146. doi:10.1080/13803395.2018.1503644
- Hopfer, C. (2014). Implications of marijuana legalization for adolescent substance use. *Substance Abuse*, 35(4), 331-335. doi:10.1080/08897077.2014.943386
- Huck, S. (2016). *Statistical misconceptions*. New York, NY: Routledge.
- Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).
- Jacobson, L. (2018, May 3). *More states consider allowing students to take medical marijuana at school*. Retrieved from <https://www.educationdive.com/news/more-states-consider-allowing-students-to-take-medical-marijuana-at-school/522655/>
- Kleber, H. D., & DuPont, R. L. (2012). Physicians and medical marijuana. *American Journal of Psychiatry*, 169(6), 564-568. Retrieved from <https://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2012.12030373>
- Klumpers, L., Cole, D., Khalili-Mahani, N., Soeter, R., te Beek, E., Rombouts, S., & van Gerven, J. (2012). Manipulating brain connectivity with δ^9 -tetrahydrocannabinol: A pharmacological resting state fMRI study. *Neuroimage*, 63(3), 1701-1711. doi:10.1016/j.neuroimage.2012.07.051
- Kondrad, E., & Reid, A. (2013). Colorado family physicians' attitudes toward medical marijuana. *The Journal of The American Board of Family Medicine*, 26(1), 52-60. doi: 10.3122/jabfm.2013.01.120089
- Livio, S. K. (2019). *N.J.'s chief of medical marijuana; 'We are making progress but we know more needs to be done.'* Retrieved from N.J.'s chief of medical marijuana: 'We are making progress but we know more needs to be done.' -retrieved from

- <https://www.nj.com/marijuana/2020/05/njs-chief-of-medical-marijuana-we-are-making-progress-but-we-know-more-needs-to-be-done.html>
- Maine State Legislature. (2019). *Medical marijuana in Maine*. Retrieved from <http://legislature.maine.gov/lawlibrary/maines-medical-marijuana-law/9242>
- Mammoser, G. (2017, October 23). *Marijuana can help children with seizures, cancer nausea*. Retrieved from <https://www.healthline.com/health-news/marijuana-can-help-children-with-seizures-cancer-nausea#1>
- McNelly, T. (2009). An urban school district's parent involvement: A study of teacher's and administrators' beliefs and practices. *School Community Journal*, 19(1), 33-58.
- Moore, C. (2018). *State and federal laws at odds over allowing medical marijuana on school grounds*. Retrieved from <https://merryjane.com/news/state-and-federal-laws-at-odds-over-allowing-medical-marijuana-on-school-grounds>.
- Mouhamed, Y., Vishnyakov, A., Qorri, B., Sambhi, M., Frank, S., & Nowierski, C., . . . Szewczuk, M. (2018). Therapeutic potential of medicinal marijuana: an educational primer for health care professionals. *Drug, Healthcare and Patient Safety*, 10, 45-66. doi: 10.2147/dhps.s158592
- Newman, M. (2018, August 28). More families choose medical marijuana to help kids' severe conditions. *Delaware Online*. Retrieved from <https://www.delawareonline.com/story/news/health/2018/08/28/does-medical-marijuana-help-pediatric-patients/1071780002/>
- Nielsen, S., Sabioni, P., Trigo, J. M., Ware, M. A., Betz-Stablein, B. D., Murnion, B., . . . Le Foll, B. (2017). Opioid-sparing effect of cannabinoids: A systemic review and meta-analysis. *Neuropsychopharmacology*, 42(9), 1752-1765.
- Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. *Implementation Science*, 10(1), 53-53. Retrieved from <https://ncbi.nlm.nih.gov/pmc/articles/pmc4406164>
- Norwood, Candice. (2018) The Pros and Cons of Allowing Medical Marijuana Use in Schools. *Governing The Future of States and Localities*. Retrieved from <https://medicalmarijuana.procon.org/top-10-pro-con-arguments/>
- NYSDOH, (2019). *Medical use of marijuana under the compassionate care act*. Retrieved from [Medical Use of Marijuana Under the Compassionate Care Act Two-year Report \(ny.gov\) https://www.health.ny.gov/regulations/medical_marijuana/about.htm](https://www.health.ny.gov/regulations/medical_marijuana/about.htm) .
- Orberg. (2017). Medicinal cannabis. *Nursing*, 47(8), 46-47. doi: 10.1097/01.nurse.0000522115.48045.e6
- Pereira, L., Núñez-Iglesias, M. J., Domínguez-Martís, E. M., López-Ares, D., González-Peteiro, M., & Novío, S. (2020). Nursing Students' Knowledge and Attitudes

- Regarding Medical Marijuana: A Descriptive Cross-Sectional Study. *International journal of environmental research and public health*, 17(7), 2492.
<https://doi.org/10.3390/ijerph17072492>
- Pettinato, M. (2017). Medicinal cannabis: A primer for nurses. *Nursing*, 47(8), 46-47.
 doi:10.1097/01.nurse.0000522115.48045.e6
- Pickert, K. (2020). Time: Pot Kids-Inside the quasi-legal science-free world of medical marijuana for children. Retrieved from <https://time.com/pot-kids/>
- Privratsky, B. (2018). *Cannabinoid therapy in chronic pain management* (Master's thesis). Retrieved from Physician Assistant Scholarly Project Papers (No. 22)
 Retrieved from
<https://commons.und.edu/cgi/viewcontent.cgi?article=1021&context=pas-grad-papers>
- ProCon.org (2019). Retrieved from Should marijuana be a medical option?
<https://www.procon.org/>
- Project CBD. (2019). *What is CBD?* Retrieved from <https://www.projectcbd.org/cbd-101/what-is-cbd>
- Railey, H. (2016, July 12). Medical marijuana in schools: State legislation and policy considerations. *Ed Note*. Retrieved from <https://ednote.ecs.org/medical-marijuana-in-schools-state-legislation-and-policy-considerations/>
- Richards, J., Smith, N., & Moulin, A. (2017). Unintentional cannabis ingestion in children: A systematic review. *The Journal of Pediatrics*, 190, 142-152.
 doi:10.1016/j.jpeds.2017.07.005
- Rosado, J. (2018). What is Charlotte's web? Marijuana Doctors A New Kind Of Healthcare. Saadeh, C. E., & Rustem, D. R. (2018). Medical marijuana use in a community cancer center. *Journal of Oncology Practice*, 14(9), e566-e578.
 doi:10.1200/JOP.18.00057
- Ryan, J.E., Smelter, S., & Sharts-Hopko, N. (2020). Parents' experiences using medical cannabis for their child. *Nursing Outlook* 68, 337-344
- Saper, C. (2014). Up in smoke: A neurologist's approach to "medical marijuana." *Annals of Neurology*, 77(1), 13-14. doi:10.1002/ana.24327
- Smith, S. C. (2014, March). *Does medical marijuana equal bad parenting?* Retrieved from <https://www.cnn.com/2014/03/12/health/medical-marijuana-parents/index.html>
- Tambaro, S., & Bortolato, M. (2012). Cannabinoid-related agents in the treatment of anxiety disorders: Current knowledge and future perspectives. *Recent Patents on CNS Drug Discovery*, 7(1), 25-40. doi:10.2174/157488912798842269

- Terrasi, S., & de Galarce, P. (2017). Trauma and learning in America's classrooms. *Phi Delta Kappan*, 98(6), 35-41. doi:10.1177/0031721717696476
- Terrell, J. (2016, December 19). Marijuana legalization and its impact on schools. *District Administration*, 1-7. Retrieved from [Marijuana legalization and its impact on schools \(districtadministration.com\) https://districtadministration.com/marijuana-legalization-and-its-impact-on-schools/](https://districtadministration.com/marijuana-legalization-and-its-impact-on-schools/)
- Thompson, A. E. (2015). Medical marijuana. *JAMA*, 313(24), 2508. doi:10.1001/jama.2015.6676
- Wiederman, D. (2017). *Charlotte's web finally comes through for seizure treatment*. American Academy of Pediatrics News, Journals and Gateway. Retrieved from [Charlottes-Web-Finally-Comes-Through-For-Seizure-Treatment-Grand-Rounds-8-15-17.full.pdf \(aappublications.org\) https://www.aappublications.org/news/2017/08/15/Charlottes-Web-Finally-Comes-Through-For-Seizure-Treatment-Grand-Rounds-8-15-17](https://www.aappublications.org/news/2017/08/15/Charlottes-Web-Finally-Comes-Through-For-Seizure-Treatment-Grand-Rounds-8-15-17.full.pdf)

Appendix A

Official Letter of Invitation to Participate

Study Title: Medical Marijuana in K-12 Public Schools: A Narrative Study of Parents' Experiences with Policy Implementation

Date

Address

Dear _____:

My name is Donise Robinson. I am a doctoral candidate in the Ed. D program in Executive Leadership at St. John Fisher College, Rochester, NY. I am currently employed as a Director of Special Education in a public-school district in New York. I have a child who is diagnosed with epilepsy, ADHD and ODD.

As my dissertation research, I am exploring parents' choice to use medical marijuana and or CBD as a treatment plan. I want to conduct interviews and learn about parents' experiences with implementation of the treatment plans in K-12 public schools.

I am conducting this research study as part of the requirement of my doctoral degree in education, and I would like to invite you to participate. The participation in the study is voluntary. Involvement in the study would entail (a) answering the three qualifying questions (1-3 minutes); (b) Participation in a 45 to 60 minute interview.

All interviewees need to respond YES to the qualifying questions. Additionally, they will need to allocate 2 sixty- minute blocks of uninterrupted time for the interview. This can be either by phone or virtual face to face and at an agreed upon time. The

interview will be audio recorded so that I can accurately reflect what is discussed. The audio will be reviewed by a hired confidential agency that will transcribe and analyze them and by me. They will then be destroyed after 3 years. If you feel uncomfortable answering some of the questions, you do not have to answer any questions that you do not wish to. Participation is confidential.

Your willingness to consider participation is greatly appreciated. As you know, minimal research has focused on the administration of medical marijuana in public schools. Your participation in this study will benefit all schools as they develop their policies for treatment plans and encourage parents who are considering medical marijuana as a treatment plan.

Thank you for your consideration. For your convenience, I have listed the three qualifying questions below. If you can answer yes to these questions, you are eligible to participate. I have enclosed a reply form indicating your willingness to participate in the study. If you qualify and would like to participate, please sign the attached form, and return it to me at dr00208@sjfc.edu

1. Do you have K-12 school-aged children?
2. Do you have children who attend school in a state where medical marijuana/CDB is legal for medical treatment?
3. Have you selected medical marijuana as a treatment plan for your child?

Participation Date:

To: Donise Robinson, Researcher

From:

I have received and read your invitation to participate voluntarily in your dissertation study regarding Medical Marijuana in K-12 Public School. A Narrative Study of Parents' Experiences with Implementation. I have responded Yes to the qualifying question.

My response is as follows:

-----Yes, I will participate

-----No, I am unable to participate

Appendix B

Informed Consent Form

Title of Study: Medical Marijuana in K-12 Public Schools: A Narrative Study of Parents' Experiences with Policy Implementation

Name of Researcher: Donise Robinson

Faculty Supervisor: Dr. William Jeff Wallis

Phone for Further Information: 646-468-6817

Purpose of Study: The purpose of this study is to examine the experiences of parents who choose medical marijuana as a treatment plan for their children and to examine the experiences of the parents with the implementation process of the plan in their children's schools.

Place of Study: virtually face to face or audio, at a mutually agreed upon time.

Length of Participation: Approximately 90 minutes - two hours

Method(s) of Data Collection: The interview questions will be distributed before the interviews. Interviews will be conducted and recorded digitally.

Risk and benefits: Participation is voluntary. The expected risk and benefits of participation in this study are explained below:

Minimal risk exists for most participants. Some participants may experience some emotional discomfort through recalling personal experiences about their children journey with health, academic and social issues. There is minimal to no risk of physical harm.

There is no benefit to the participant although the research will contribute to the conversations and research on medical marijuana and its benefits.

Method for protecting confidentiality/privacy of subjects: Pseudonyms will be assigned to all participants. Participant names and any identifying information will remain confidential and not appear in transcripts or final study. Your information may be shared with appropriate governmental authorities ONLY if you or someone else is in danger, or if we are required to do so by law.

Method for protecting confidentiality/privacy of data collected:

All digital audio recordings and transcriptions of the interviews will be maintained using a private, locked, and password-protected file and password-protected computer stored securely in the private home of the researcher. Electronic files will include assigned identity codes and pseudonyms; they will not include actual names or any information that could personally identify or connect the participants of this study to this study. Other materials, including notes or paper files related to data collection any analysis, will be stored securely in unmarked boxes, locked inside a closet in the private home of the researcher. Only the researcher will have access to the electronic or paper records. The digitally recorded audio data will be kept by the researcher for a period of 5 years following publication of the dissertation. Signed informed consent documents will be kept for 5 years after publication of the dissertation. All paper records will be crosscut, shredded, and professionally delivered for incineration. Electronic records will be cleared, purged, and destroyed from the hard drive of the researcher, and all devices such that restoring that data will not be possible.

Your Rights: As a research participant, you have the right to:

1. Know the purpose of the study and have the expected risks and benefits fully explained to you before you choose to participate.
2. Withdraw from participation at any time without penalty.
3. Refuse to answer a question without penalty.
4. Be informed of the results of the study.
5. Be informed of the appropriate policy development, if any, that might be advantageous to you.

I have read the above, received a copy of this form, and I agree to participate in the above-named study.

Print name (Participant) Signature Date

Donise Robinson (Investigator) Signature Date

If you have any further questions regarding this study, please contact the researcher listed above. If you experience emotional or physical discomfort due to participating in this study, please contact your personal health care provider or an appropriate crisis service provider. The Institutional Review Board (IRB) of St. John Fisher College will review this project. For any concerns regarding this study, or if you feel that your rights as a participant (or the rights of another participant) have been violated or caused you undue distress (Physical or emotional distress), please contact irb@sjfc.edu. A supervisory IRB official will respond to assist you.

Appendix C

Interview Questions

Research Questions	Interview Questions
<p>1. Given current medical marijuana policies, how do parents describe their experiences implementing their children's treatment plan?</p>	<p>Why did you choose medical marijuana as a treatment plan for your child?</p> <p>How did your child's school personnel react to your choice to use medical marijuana as a treatment plan?</p> <p>What, if any, positive and or negative experiences did you have while collaborating with the school to implement your child's treatment plan?</p> <p>Can you share an experience during the process that left you feeling confident about your decision?</p> <p>Can you share an experience during the process that left you feeling doubtful about your decision?</p>
<p>How does medical marijuana impact parent's perceptions of their child's performance in school?</p>	<p>Have you had to postpone your preferred treatment plan of medical marijuana for your child?</p> <p>How? Why?</p> <p>How did this shape your child's academic performance?</p> <p>Do you view the current medical marijuana policies to be effective for children in K-12 schools?</p> <p>Have your child's data on report cards increased or decreased due to the MM policy?</p> <p>Was there an improvement in academic outcomes due to implementation of MM policy?</p> <p>Can you share a moment or memory that stands out for you regarding your child's academic experience before or after implementation of the policy?</p>
<p>How do parents describe the implementation of medical marijuana policy on their child's social and emotional development?</p>	<p>Has your child experienced any barriers in social development in school?</p> <p>Have behavioral concerns increased or decreased due MM policy?</p> <p>Do you feel your child's social development has improved or declined due to the current medical marijuana policies in place in your child's school?</p>

	<p>Do you feel your voice has been heard in the process regarding your child's social development?</p> <p>What would you say to someone considering this treatment plan and journey with a school district?</p> <p>How has the choice of MM as a treatment plan affected your child's emotional state?</p> <p>Can you share any success or challenges of your child's emotional development due to the policy?</p> <p>Can you share an experience that made you reconsider your treatment plan because of your child's emotional development?</p> <p>Has your child made emotional improvements that can be contributed to MM policy?</p>
--	---