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A Narrative Policy Review of Asthma Education Programs in North Carolina Schools

Rosemary Moody
Walden University

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Walden University

College of Health Sciences and Public Policy

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Rosemary Moody

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the review committee have been made.

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Walden University
2025

Abstract

A Narrative Policy Review of Asthma Education Programs in North Carolina Schools

by

Rosemary Moody

MA, Walden University, 2014

BS, Phoenix University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Policy and Administration Program

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February 2025

Abstract

Asthma remains one of the most common chronic conditions affecting school-aged children, posing significant challenges to their academic performance and overall well-being. However, the literature indicates that there continues to be barriers to successful implementation of asthma education policies in the public schools, particularly in the elementary levels. Using Maxwell's interactive design for qualitative research, this study investigated how educators and stakeholders perceived the impact of state legislation on asthma education criteria and outcomes for student in grades K-5, as well as their recommendations for policy. Guided by Jones and McBeth's narrative policy framework, semi structured interview data were collected from five respondents in a diverse North Carolina school district. Participants were asked to discuss their lived experiences and perspectives on asthma education criteria, offering insights into the effectiveness and challenges of the policies. The findings included the need for enhanced communication among stakeholders, to develop more effective protocols when addressing the needs of young children with asthma, and the need for more parent involvement with schools and nurses regarding the administration of medications. The findings can inform best practices for educators and school administrators working with elementary school students (K-5) and provide school personnel and parents with working insights to aid in policy refinement and better support for students with asthma. Proactively addressing gaps in policy implementation may foster positive social change by promoting the adoption of more effective asthma education programs within North Carolina public schools.

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Dedication

To my Heavenly Father, the source of unwavering strength and guidance. With gratitude for the blessings bestowed upon me, I dedicate this dissertation to Him. May my efforts in advocacy serve as a humble reflection of His boundless love and compassion for those who are unheard. In His name, I embark on this journey, seeking justice and speaking up for the voiceless.

Luke 12:48 states, “From everyone who has been given much, much will be demand; and from the one who has been entrusted with much, much more will be asked.”

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Chapter 1: Introduction to the Study

Introduction

This research explored the legislation, barriers, and successes of asthma education policies for public school (K-5) students and the school nurse shortage in public schools in southeastern areas of the United States. The study focused on one North Carolina district, which was called County Public Schools (CPS). The research was necessary to raise awareness of the ineffectiveness of asthma education programs and nursing shortages across school districts. Additionally, the study highlighted the benefits of implementing asthma education programs in public schools. Public policy and health policy initiatives in asthma education programs assisted public schools in providing essential healthcare services to students, parents, school administration, and the community. The education platform explored strategies that created positive social change and addressed social implications for school nurses and staff.

Social implications in an asthma education program include examining barriers, challenges, and successes in school health initiatives. The potential impact of social implications for this research included inequities in health services during school hours. Students were expected to receive a quality education each day and have access to their specific medical needs. Public school settings often advocated for students when issues arose in their daily lives.

The significant sections of chapter one consisted of the introduction, background, problem statement, purpose of the study, research questions, and an explanation of the theoretical framework. In addition, the study included an overview of the nature of the

study, definitions, assumptions, scope and delimitations, limitations, significance, and summary. The chapter provided an overview of asthma education programs throughout the United States, focusing on North Carolina public schools.

Background

Asthma education programs in public schools provide asthmatic students with the skills needed to control their asthma flare-ups. Students with asthma often lacked access to an on-site healthcare provider, such as a nurse, during school hours. The challenges faced when a school nurse is unavailable during an asthma flare-up could be detrimental to the student. The student might not have had access to their emergency inhaler, and the current teacher, with no healthcare experience, might have had to assist with administering medication.

Asthma knowledge and self-management are critical to asthma management, enabling students, paraprofessionals, administrators, and volunteers to learn about asthma concepts that foster collaborative community strategies. To determine asthma education developments in policy adoption, educational stakeholders, parents, and caregivers need to create strategies that benefit students in managing their asthma care plans.

Public policy initiatives in asthma education programs helped sustain services, create equity across schools, and broaden effective interventions. According to the Centers for Disease Control and Prevention (CDC, 2022), emerging research developments cannot prevent or cure asthma. However, with appropriate treatment plan guidance and services, children are able to lead daily lives filled with activities and become symptom-free. The current study examined how educators viewed asthma

education policy and what they believed were reasonable recommendations to improve asthma policies for asthmatic children (K-5) in the school system. The resulting asthma education policies may provide a blueprint for other school systems to revise and improve their policies.

Problem Statement

Existing research from the last 5 years focuses on how asthma impacts children daily. Asthma is one of the leading causes of school absenteeism (Cicutto et al., 2020). Approximately 36,000 children missed school days due to asthma. Asthma education programs in public schools aim to provide educators with the necessary training and resources to treat asthmatic students. These programs helped students identify triggers, use peak flow meters, and manage medication. The asthma education policy and health policy initiatives that were examined in previous studies are related to building collaborations and partnerships in asthma education programs for (K-5) grade levels.

The shortage of nurses in school systems is one of the main concerns in asthma education policy. However, school health policies and practices often change over time. This research study identified mechanisms essential for successful asthma education programs in public schools. The problem addressed in this research related to school health policies that require revisions to meet the student population's needs. A lack of school funding was another issue that contributed to the study of asthma education.

One of the seminal scholars in asthma studies is Dr. Lisa Cicutto, director of community research in the Department of Medicine at National Jewish Health in Denver, Colorado. She and her colleagues studied asthma action plans and found that often there

were poorly controlled, or nonexistent asthma plans and a lack of school nurses (Cicutto et al., 2020; Cicutto et al., 2017; Cicutto et al., 2016). The articles discussed ideal healthcare settings for school-aged children in the (K-5) grade levels (Cicutto et al., 2020). Building asthma program collaborations with the community, students, and healthcare providers can engage the key stakeholders to improve asthma outcomes during the school day.

Asthma education policies reduce the burden of asthma through policy initiatives, education, partnerships, and communication. School-based asthma programs create a learning environment for students with asthma that offers policies and procedures to manage their asthma successfully (CDC, 2023). School systems work on policy initiatives that gain buy-in from key stakeholders within the local school board. The school administrators and parent-teacher groups had to present the need for an asthma education policy and program that would be funded by their local school board (American Lung Association, 2022).

The lack of funding resources for an asthma education policy and program in public schools contributed to the asthma education policy problem. However, stakeholders in the public school system need to address this issue. The economic climate at the time of this study is marked by cutbacks for essential services provided by schools. School systems have tried to explore ways to offset costs and generate additional funding for necessary services. For example, in one southeastern school system, funding accounted for 67% of expenditures, with federal funding at 12% and local funding at 21% of spending (North Carolina Forum Organization [NCFO], (2023). The southeastern

state spent an average of \$10,791 per student in 2020, \$4 655 below the national average between 2008 and 2020. Improving students' lives through evaluation and evidence-building was essential to promoting health equity for asthmatic children in school settings.

Purpose of the Study

This study examined asthma education policy recommendations in elementary schools by exploring teachers' and parents' views, thoughts, and opinions regarding childhood asthma and its impact on (K-5) children during school hours. The research utilized an interpretive approach that relied on questioning and observation through assessments of existing programs to identify strengths and weaknesses in asthma education policy. Qualitative interviews with key stakeholders were conducted to create asthma education policies in public schools. The study emphasized the need to improve asthma knowledge and educational developments for school personnel, including secretaries, counselors, and paraprofessionals, who primarily worked in the main office. Decision-making strategies were discussed to implement asthma education policies and determine school systems' state laws, barriers, and success in funding asthma education policies. The study also highlighted developments in successful asthma education policies that allowed for interventions and school health strategies within school programs. The study explored a narrative design model viewed through the lens of critical stakeholders within the school system, which allowed for a deeper understanding of school health policies concerning asthma education, including policy narratives, policy understanding, and policy intentions.

Research Question

How do educators and stakeholders involved in North Carolina public schools perceive legislation, barriers, and successes of asthma education criteria?

Theoretical Framework for the Study

The phenomenon explored by this study examined the awareness of parents, teachers, and administrators about asthma education program policies related to public schools and school nurse shortage. The narrative policy framework (NPF) provided the conceptual framework for this study. Originating from Jones and McBeth (2010), the theory focuses on interpreting the problem, such as asthma education programs in public schools. The narrative policy framework theory is a process that focused on empirical truth provided by the participants in story format (Jones et al., 2011). The narrative theory framework considers functions focusing on the circumstances, conditions, and goals of the stories told by study participants, such as administrators and teachers. Jones et al. (2011) later defined four elements critical to the NPF: setting, characters, plot, and moral. By defining the setting, characters, plot, and morals, these four defining elements are seen as critical in policy communication.

Asthma education programs play a crucial role in schools by improving awareness, management, and support for students with asthma. Understanding the perceptions of school administrators and teachers regarding the implementation and effectiveness of these programs can provide valuable insights into their experiences and identified areas for improvement. This study used the NPF and design-in-use approach to

address issues relevant to the study, with individual interviews serving as the primary instrument technique.

Nature of the Study

The study used Maxwell's (2012) interactive design for qualitative research. Qualitative studies required a reflective process throughout every stage of the project. As the researcher, it was essential for me to elaborate on connections and relationships within the research design. Data collection and analysis activities focused on a generic qualitative research method involving interviews. Changes in the design were made as new developments occurred during the study, demonstrating the flexibility of qualitative research.

The interactive design model addressed components of the asthma education policy study, defining the effectiveness of relationships between elements affecting one another. This design model focused on developments that organized details efficiently, allowing for practical functionality. The literature supporting this study was derived from narrative policy frameworks (NPF), which linked storytelling aspects to asthma education policy programs. The connection between characters and properties was essential for understanding asthma education policy. The study examined multiple perspectives and connections related to asthma education programs in schools, particularly concerning micro, macro, and homo narrans elements. A detailed analysis of these elements was presented in Chapter 2.

Definitions

Key concepts and terms used in this study that have multiple meanings are as follows:

Asthma: A disease that affects the lungs and causes repeated episodes of wheezing, breathlessness, and chest tightness, along with nighttime or early morning coughing (CDC, 2022).

Asthma Education: Educating an individual with asthma is one of the most important treatment components. With proper education, individuals could recognize symptoms earlier and respond to changes with a predetermined action plan (CDC, 2022).

Asthma Management: Patient education, control of asthma triggers, monitoring for changes in symptoms or lung function, and pharmacologic therapy (CDC, 2022).

Asthma Resources: Support systems or mechanisms that will guide or assist patients (CDC, 2022).

Childhood Asthma: The lungs and airways become easily inflamed when exposed to specific triggers, such as inhaling pollen or catching a cold or other respiratory infection (CDC, 2022).

Policy Memo: A written document that analyzes a problem or situation and recommends actions on the problem (McCabe & Connolly, 2019).

Social Determinants of Health: These are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes and risks (Walden University Library, 2022).

Assumptions

The methodological assumptions in the asthma education study represented themes and concepts from elements that provided claims about criteria requirements in asthma policies for public schools. The methodology focused on a hybrid approach that shaped triangulation factors in a design context. As a researcher, I used inductive logic to shape my experiences while collecting and analyzing data. I employed a deductive approach to connect the related variables in the observation process. It was important to have an inquiry perspective from the participants in the asthma education study. As data analysis occurred, I analyzed and developed details about the topic studied.

Assumptions were defined as items relevant to a study that were out of the researcher's control (Simon, 2011). For example, in the asthma education study, I assumed that the sub-set population participating in interview questionnaires would answer questions effectively and honestly. However, I had no control over how participants responded. I also assume that asthma experts can advocate for policies to help build awareness for a school-based asthma education policy.

Scope and Delimitations

The scope and delimitations define the boundaries of the research study. Delimitations were under the control of the researcher (Simon, 2011). A delimiting factor in the asthma education research study was that it focused specifically on the population in North Carolina and did not apply to surrounding states. The results of this study were generalizable to school administrators and educators employed in the (K-5) elementary school setting. The participants in the asthma education study had professional

knowledge about asthma policies for public schools in their region. The results were not transferable to another geographical location because the study was specific to the North Carolina area.

Limitations

Limitations were weaknesses in the study that were out of the researchers' control (Bursey, 2022). The asthma education research study's limitations included selecting participants from public schools. A limitation was the time required to conduct the study, as elementary teachers had limited availability during the ten months public schools were in session. Another limitation was obtaining permission from the CPS district to conduct interviews. Data interpretation and presentation required time for both data collection and analysis (Bursey, 2022). The potential limitations were critical to ensuring the study progressed in a timely manner. Another limitation was memory bias, which could affect participants' recollections of past experiences, potentially introducing biases and distortions in the results.

Significance

Present asthma education policies lack sufficient funding opportunities for school districts. According to Lynn et al. (2014), inequities in universal access across many states and school districts hindered the adoption of public policies that benefited children with asthma. Policy changes and stakeholder support could address this complex issue in asthma education by modifying public school policies aimed at asthma. This study's results could impact social change by improving staff support, funding resources, and general knowledge about asthma education programs and policies in North Carolina

Public Schools. The significance of this study is that it has addressed gaps in the research and development of asthma education.

Summary

The chapter provided an overview of this study on asthma education policies in one school district in the southeastern United States. Addressing asthma education criteria is critical for the well-being of students with asthma in public schools. The findings from this research could have practical implications for policymakers, educators, and stakeholders in North Carolina. This qualitative research study was designed to provide in-depth insight into stakeholders' experiences with asthma education. Chapter 2 will present asthma education research from scholarly literature and include an in-depth discussion of the theory framework for this study.

Chapter 2: Literature Review

Introduction

The research problem for this study is barriers to implementing asthma education programs in public schools. This study explored the issues that impacted asthma education in public schools in one southeastern school district. Asthma is one of the leading causes of school absenteeism (CDC, 2022). Public schools play a vital role in coordinating asthma care. The school health policies and practices often change over time. This study explored the legislative impact, barriers, and successes in asthma education training in CPS. In addition, this study addressed how participants respond to asthma education programs to create an asthma-friendly school environment for North Carolina Public Schools. Although adequate school nurse staffing is complex, the school system should consider the school nurse-to-student ratios in budgetary discussion. A secondary purpose of this study is to determine how policy recommendations help children manage their asthma while in school.

Policy objectives for asthma education programs in public schools will allow equality to access health services. These objectives will guide public health policy perspectives to help sustain school-based asthma management programs in public schools. The evidence presented is significant to asthma education and management disciplines in public policy and health policy initiatives. This literature review examined gaps in educating public school administrators, staff, teachers, and children about the essential steps in asthma management. The major sections in this chapter include the literature search strategy and an explanation of the theoretical foundation of the narrative

policy framework (Shanahan et al., 2018; Shanahan et al., 2011) and its application to the topic of asthma education programs. In addition, I presented literature-related critical concepts.

Peer-reviewed journals from previous studies in asthma education provided a perspective for policy practice in asthma education for North Carolina Public Schools. The literature review includes an overview of asthma education programs throughout the United States, focusing on North Carolina public schools. This study focused on one district in North Carolina, although the district will not be named.

Literature Search Strategy

I searched for relevant literature from EBSCOhost, Google Scholar, ProQuest Central, Science Direct, Sage Journal, and Walden University Library databases. The search was limited to peer-reviewed scholarly journals using the terms *asthma* and *policy* published during 2018–2023. I did another search terms using *asthma*, *funding*, and *children*, again between 2018-2023. The search terms were inputted through the Walden University Library Sage Journals database.

In addition, there were multiple websites searched for related information in asthma education, including The North Carolina Department of Health and Human Services Division of Public Health, NC State Center for Health Statistics, Centers for Disease Control, Asthma and Allergy Foundation of America, America's Health Rankings United Health Foundation, American Lung Association. Key search terms used in this literature review included *asthma friendly schools*, *asthma education*, *asthma management*, *asthma funding resources*, *asthma resources*, *childhood or pediatric*

asthma, asthma action plan, social determinants, policy model, narrative policy framework, and public policy.

I confirmed the iterative search process through Google Scholar, which provided a broad search for scholarly literature across various disciplines and sources. The Walden University Library provided a comprehensive inquiry into scholarly literature and references in publications and articles from Sage Journal, PubMed, and North Carolina asthma research literature resources. The scope of the research in this study provided scholarly and peer-reviewed articles that establish meaningful information for this policy study on asthma education.

Theoretical Foundation

The narrative policy framework (NPF) provided the theoretical framework for this study (Jones et al., 2022; Shanahan et al., 2011). Shanahan et al. (2018) originated the theory, which focuses on interpreting the problem, such as asthma education programs in public schools. The narrative policy framework considers functions that focus on the stories' circumstances, conditions, and goals as told by study participants or storytellers—teachers' and parents' viewpoints as the storytellers account for the functions of the story. Later work by Shanahan et al. (2011) defined four elements critical to the NPF: setting, characters, plot, and morals.

This study examined the data through the NPF (Jones et al., 2022) to determine the appropriate funding resources for the North Carolina Public School System. The narrative policy framework theory is a process that focuses on empirical truth in a narrative format. The individuals provided their stories in this research theory. The

conceptual piece of the narrative policy framework includes developing critical elements in the policymaking process. The narrative policy framework has four core elements: setting, characters, plot, and morals. These four defining elements are relatable in the policy narrative communication.

Core Elements of NPF

NPF applies a discovery to the policy process that suggests storytelling as a main way to how humans understand and communicate about the world around them (Jones et al., 2022). These core elements allowed me to explore a connection between description and logical approaches in asthma education policy study. I focused on the NPF core elements that built a direct relationship between policy narrative and policy support intention (Jones et al., 2022; Shanahan et al., (2018).

- Setting or Environment is where the events interact with the actions of the characters. The proposed setting was a Southeastern Public School District.
- Characters consist of school staff who are the key actors in this study and have an instrumental role in the asthma education setting. The characters in this study are educators, paraprofessionals, and school nurses who have daily contact with (K-5) students impacted by asthma.
- Plot or Situation creates a timeline of events for the characters within a specific time and space of these events. The sub-set participants will discuss their knowledge of asthma education policy programs in the school district.
- Moral is the policy solution or the point of the narrative in the story. The moral of this story will determine how the framework relates to approaches

in this study. Essential study connections with the research question will connect with instrument developments as the research study evolves.

Historical Facts of Narrative Policy Framework

The narrative policy framework research originated from scientific discoveries surrounding the central research question. The NPF was conceived at the Portneuf School of Narrative (Shanahan et al., 2011). In the early part of the 20th century, Jones formally named the research findings (Shanahan et al., 2011). The NPFs initial purpose was to scientifically understand the relationship between narratives and the policy process, which comprised a framework sourced in education, history, literature, sociolinguistics, and sociology.

The narrative theory perspective focuses on the interpretation of the problem. The narrative theory considers functions that focus on the story's circumstances, conditions, and goals of the story. The viewpoints of the storyteller's accounts and the functions of the story are essential to the narrative policy framework, which has significant expositions detailing core assumptions, levels of analysis, hypotheses, and definitions of narrative concepts. As I examined the asthma education and management research study, the focus on NPF studies addressed the framework's central research question: what is the role of policy narratives in the policy process?

The analysis for NPF is not a one-size-fits-all for research projects centered on narratives. While most research design and methods texts give importance to theory, what is often more obtuse in these texts is an articulation of why theories matter in the first place. Embedded in theories are assumptions about how the world works. In policy

literature, theoretical work on narratives is based on different and contrasting assumptions. There are five core assumptions to consider when applying the narrative theory framework: social construction, bounded relativity, generalizable structural elements, three interacting levels of analysis, and homo narrans model of the individual (Shanahan et al., 2011; Shanahan et al., 2018).

The assumptions of the narrative policy framework are built upon interpretive, qualitative, and inductive analysis of public policy. The unique approaches to social constructivism came from Sabatier's 1999 work on different policy frameworks (Sabatier & Mazmanian, 1980; Sabatier & Weible, 2014). Sabatier omitted the original version of the social construction. Fisher and Forrester initially introduced the policy process in a 1993 iteration that focused on the social constructed nature of the policy process. The perceptions in the social construction policy process are considered in understanding and explaining the policy process.

Sabatier became more involved with the social construction policy process during his second edition of *Theories of the Policy Process* (2014). Sabatier invited Ingram, Schneider, and DeLeon to write a chapter on the theory (Jones et al. 2022). The research approach that Schneider and Sidney (2009) conceived in the social construction policy process means the varying ways in which realities are shaped; they do not embrace the relativistic conception of social construction advocated by those aligned to Sabatier and Mazmanian (1980) or Sabatier and Weible's constructivism policy process (2014). Instead, Pierce et al. (2014) explored Schneider and Ingram's version of social construction, which relied on a variant of bounded relativity where meaning varies by

context in a systematic and generalized approach. This unique approach explored how policy design shapes the social construction of policy targeting populations.

The social construction element provides significant parts of policy reality that are socially constructed. Schneider and Sidney (2009) created the rationale and basic concepts of the theory. The core rationale for the theory is based upon past work on social constructions of knowledge in terms of positive or negative connotations and policy designs. Social construction is associated with specific policy designs related to institutions and social knowledge. The social construction policy theory is based on knowledge constructed through human activity. There are three categories: (i) the model of the individual, (ii) power, and (iii) the political environment, which is essential in understanding pertinent facts about social construction theory.

The model of the individual is defined as actors who cannot process all the information relevant to decide and therefore rely on mental heuristics to filter information in a biased manner, which result in confirmation of new information that is consistent with preexisting beliefs and reject information that is not people use social constructions in a subjective manner that is evaluative.

Scholars in the public policy field now recognize social construction as a fundamental aspect of policy design. During the 1950s, policymakers explored new concepts, leading to developments that shape today's scholarship. Scholars have the flexibility to choose from various dimensions based on the specific focus of their research, including consistency, problem definitions, and social constructions (Schneider & Sidney, 2009).

The bounded relativity element provides a meaning of those social constructions that vary to create different policy realities (Shanahan et al., (2018). However, the variation is bounded and thus is not random but stable over time. The assumption view creates policy realities (Shanahan et al., 2018). The bounded rationality suggests that evidence in public organizations' social and historical aspirations can influence performance improvement, as predicted by behavioral theory. This study examined organizational responses to performance management in the public sector in Korean public agencies.

The idea of behavior is that an organization's past performance shapes its behavior, affecting its future performance. Scholars explored how performance feedback influences organizational behaviors, which resulted in empirical evidence. The cognitive foundation for this evidence is that individuals do not maximize but rather satisfy by being rationally bounded (Simon, 2011). Managers of organizations try to find a course of action that is acceptable to satisfaction or exceeds the minimum criteria. Organizations look at outcomes in performance levels that are guided through aspiration. The study examines contributions to literature on public administration. The organizational performance into public sector promotes an exchange of ideas among different literature views. In behavior theory, feedback contributes to improving performance and aspiration. Future research on bounded rationality may address more understanding of performance management systems based on long panel data sets. Scholars can fill literature gaps by studying the dynamics of mid- to long-term relationship between public managers, elected officials, and voters (Hong, 2019).

The following core assumption will examine generalizable structural elements in narrative policy framework. Generalizable structural elements look at narratives through an approach that has specific and identifiable structures. This element takes a structuralist approach in defining narratives such as plots and characters that can be identified in multiple narrative contexts. This assumption derives from academic approaches for practical reasons, developing empirical research and forming a foundation to approach narrative policy framework (Sabatier & Weible, 2014).

Narrative policy framework identifies three levels of analysis: micro (individual), meso (group), and macro (cultural and institutional). During the research developments in NPF, the policy process will determine strategies that will guide levels of analysis. The micro perspective (Individuals' Elements): The micro perspective focuses on individuals involved in asthma education programs, such as school administrators, teachers, and potentially other stakeholders like parents and students. This aspect of the study will explore their knowledge, perceptions, and experiences regarding the implementation and effectiveness of asthma education programs. Understanding their perspectives can provide valuable insights into the challenges they face and the potential impact of these programs on students' well-being and academic performance. The micro level will examine narratives' influences on individual preference and decision-making (Shanahan et al., 2018). The core concept micro analysis focuses on policy narrative, setting, characters, plot, and morals. The theories relevant to this analysis examine belief systems in applicable methods such as experiments, interviews, focus groups, and cluster analysis (Sabatier & Weible, 2014).

The meso analysis explores how groups construct policy narratives and how the policy narrative affects the policy process. The core variables in meso analysis consist of policy narrative, setting, characters, plot, and morals, focusing on theories in policy learning, public opinion, belief system, and scope of conflict. The known applicable methods in this analysis consist of content analysis, network analysis, and rational choice (Sabatier & Weible, 2014). The Meso-level research focuses on how policy actors construct and communicate narratives to influence the policy process (Shanahan et al., 2018).

Homo Narrans Perspective (Group Perspectives): The homo narrans perspective refers to the collective perspectives of educators, paraprofessionals, and school nurses involved in asthma education. This aspect of the study aims to understand how theoretical beliefs and prior research findings influence their approach to implementing asthma education programs. By exploring their perspectives as a group, I identified common themes, shared challenges, and potential areas of improvement. This perspective provided insights into the dynamics within the group and how they navigate the complexities of asthma education in schools.

Macro Perspective (Asthma Education Requirements and Policy Initiatives): The macro perspective considers the broader context of asthma education within the public school system. This element explored the requirements and policy initiatives related to asthma education programs at the district, state, or national level. Examining these policies and initiatives helped to identify the legal obligations, recommended practices, and guidelines that schools must adhere to when implementing asthma education

programs. This perspective provided a framework for understanding how policy decisions influence the implementation and effectiveness of these programs. The Macro level analysis explores societal and cultural norms that focus on changes or stability in macro policy narratives. Macro level variables consist of policy narratives, settings, characters, plot, and morals. Historical analysis, policy development, and political attributes (Sabatier & Weible, 2014) are known methods. The three levels of analysis cannot operate independently. However, these analyses are dynamic and perform in narratives linkage between the levels (Shanahan et al., 2018).

Considering these three interconnected elements, the research study offered a comprehensive understanding of asthma education programs in schools. It provided insights into individual experiences, the broader policy landscape, and the collective perspectives of educators, paraprofessionals, and school nurses. These multiple perspectives will enrich findings and contribute to the development of effective strategies for improving asthma education in schools. A More detailed analysis is in Chapter 2.

The research question examined healthcare resources such as training professionals about asthma protocols. The lack of funding resources can impact implementation of a school-based asthma education program. The shortage of nurses is a factor that can create barriers to asthma education policy programs. This study's target audience was teachers and parents responsible for assessing asthma care needs for asthmatic children in school.

The research methods in this study focused on connections essential to this study's design. The interactive design model emphasized the relationship between the

research question and integrated components such as the research goals, methods, and validity. As the research question defines a clear relationship between each component in the interactive design model, the study integrated a substantial sub-set of interview questions to influence the design. The sub-set of interview questions comprised three critical factors in the study.

- Familiarity with state legislation in asthma education policy
- Barriers to asthma education policy
- Success in asthma education policy

As the applied research components connect with the data collection and design analysis, this will provide a clear view of the qualitative study.

Literature Review Related to Key Concepts

The literature review examines related concepts aimed at addressing barriers in asthma education policy within school districts, emphasizing the need for increased funding opportunities, strengthened community partnerships, targeted policy initiatives, and enhanced support for school nurses. The inequities within a school system allow students to be at risk with their health during school hours. Addressing the barriers and challenges in asthma education is an opportunity to attain higher health equity within the public-school systems.

Research studies investigated asthma education programs' criteria for implement an asthma education policy program for school systems. The research explored the advocacy successes that school nurses have on the local, state, and federal levels to implement healthcare policies that will benefit asthmatic students. The process for

successful asthma education programs requires involvement from the parents, teachers, administrators, and healthcare providers collaborating with the school nurse to create policies that will benefit the students in their asthma action plans while at school.

Research studies presented relevant literature that indicate school-based *asthma education* programs improve the school system. As the practitioner, the *nurses* can provide support in research and discuss interventions that will help guide the school systems in policies to address health concerns, such as asthma.

In the past (Lynn et al., 2014) argued that creating access to asthma care and management is the next step to identifying how to pass public policy. (Bruzzeze et al., 2009) also agreed that providing access to care at school is widespread in most public schools in the United States. (Adkinson et al., 2013) argued that asthma education of children focuses on self-assessment skills, medication use, and actions to prevent asthma flare-ups.

Researchers in asthma education concepts looked at barriers through policy advocacy initiative, including nurse-led healthcare in schools. In response to the growing problem of chronic school absenteeism linked to increases in chronic health conditions, school nurses are ideally positioned to intervene (Cicutto et al., 2017) in the implementation process. School nurses can provide a perspective about framing and translating challenges to policymakers. School nurses can provide advocacy in asthma education policies for schools because they engage in health policy and have the expertise to express their clinical voice to local, state, and federal leaders. Although, Cicutto et al., (2020) monitored and tracked implementation of the five steps of the program and four

quality care process outcomes including a parental report of a Home Asthma Action Treatment Plan, the presence of quick-relief medication in school, inhaler technique assessment and score, and the provision of a School Asthma Care Plan to the school nurse. School nurses and their health team members are often in the best position to monitor and support students with asthma. Despite significant advances in the treatment of asthma and the development of evidence-based and evidence-informed guidelines, childhood asthma morbidity remains high. Adequate funding is essential for schools to ensure the provision of full-time nursing staff, necessary resources, and comprehensive support systems. Additionally, language barriers among non-English-speaking communities and a lack of stakeholder awareness regarding asthma education in public schools further exacerbate existing challenges. The acceptability of providing health services in public schools continues to be a growing concern. Only 39% of schools employ full-time nurses (Cicutto et al., 2017).

Researchers in the asthma education community are seeking ways to improve potential barriers in asthma healthcare during school. Researchers address barriers supporting school-based health services, including policy awareness and state laws. The school nurses can provide a perspective about framing and translating challenges to policymakers. Asthma education policy programs can provide a perspective through concepts that will support school nurses or practitioners in school health services.

Asthma Overview

Asthma is one of the leading causes of school absenteeism. Public schools play a vital role in coordinating asthma care. The school systems must focus on policy adoption

to establish an asthma education system that will be sustainable for the school and its students. As school systems work on policy adoption plans, it is vital to gain buy-in from key stakeholders within the school system. The school administrators and parent-teacher groups must present the need for an asthma education program funded by their school system (American Lung Association, 2022). Asthma education programs in public schools will provide asthmatic students with the skills needed to control their asthma flare-ups. Asthma education will help students identify triggers and how to avoid triggers. The education platform can teach students how to use their peak flow meters and understand the peak flow. Asthma education can provide resource guidelines for student-specific medication and administering their medication.

Research literature identified a gap focused on adopting asthma education programs in public schools. Guidance for implementation of health policy initiatives in asthma management programs to assist public schools in this area is vital for the stakeholders involved, which include students with asthma, their parent(s)/caregiver(s), school administrators, coaches/after-school staff teachers, and health care professionals such as school nurses. Improving asthma knowledge and self-management is a focus of asthma education.

Although studies indicate that school-based programs have the potential to improve outcomes, competing priorities in the educational system present challenges to their implementation and emphasize the need for practical, targeted, and cost-effective strategies. Various approaches involved some degree of partnership among school personnel, healthcare providers in the community, and parents (Bruzzese et al., 2009). To

determine the asthma education developments in policy implications, school administrative stakeholders with decision-making authority will have to review the healthcare policy and address issues that pertain to asthma care. School-based services to improve asthma management should be accompanied by public policies that can help sustain services, scale interventions, and create equity across schools (Lynn et al., 2014).

Policy change is a complex and multifaceted process; however, its benefits are substantial, particularly in the context of asthma education and management. Engaging asthma experts, including researchers with specialized knowledge of effective services, support systems, and policy interventions, is essential to achieving optimal outcomes for children with asthma. Lynn et al., (2014) noted public policy initiatives in asthma management programs can help sustain services, create equity across schools, and broaden effective intervention. Research developments cannot prevent or cure asthma. However, with appropriate treatment plan guidance and services, children can lead daily activities and become symptom-free.

To secure funding resources for an asthma education program in public schools, stakeholders must undertake a comprehensive review of existing policies and engage in strategic advocacy efforts. This process includes evaluating current school policies on asthma education, examining state board of education guidelines related to asthma management and education, and drafting a formal letter to the school district outlining the need for an asthma education program. Additionally, stakeholders should develop and present a detailed proposal to the school board, highlighting the importance of implementing an asthma education program, as well as prepare a presentation for the

parent-teacher association to gain community support and engagement. More buy-in from critical stakeholders in this program initiative will allow for success in implementing an asthma education program.

Asthma Funding

Another critical factor in asthma education is funding resources. School funding sources are allocated at the federal, state, and local levels, with significant variations in distribution across different regions. Notably, many southern states experience disparities in funding allocation due to limited financial resources, which can impact the availability and effectiveness of educational programs, including those focused on asthma education and management (McGill, 2011), stated that more existing funding resources for asthma education in the Southern States need to be available. North Carolina School Systems rely on the Title V Program for school funding resources.

The North Carolina Division of Public Health administers the Title V Program in North Carolina. The program has built partnerships with the North Carolina Department of Health and Human Services to provide essential services to improve the health, safety, and well-being of all North Carolinians. One of the units in this program is the schools and health unit. The school and health unit will support partnerships to address physical and mental health services in the coming years. Title V Grant Funding will continue to provide outreach and education services in the capacity of pediatric primary care across the state. The Title V Grant Funding resources continue to support partnerships with Duke University, the University of North Carolina at Chapel Hill, and community partners (North Carolina Division of Health and Human Services, 2022).

Asthma Partnerships

The County Public Schools partnerships with Rex Hospital asthma staff to assist in the asthma management program WECAN and Asthma Community Network provide education and resource tools to asthmatic children. The partnerships provide tools like peak flow meters and spacers to families learning to support their children with asthma (Asthma Community Network, 2021). The partnership's processes and outcomes will give public policy and administrators a perspective on the health policy initiatives that will help sustain school-based asthma management programs in public schools. The collaborative partnerships for asthma education programs in public schools will allow for a sustaining wellness environment during school hours. The asthmatic students will learn and understand key skill sets in utilizing their specific medication.

The North Carolina Law, Section 115C-375.2 (2205), requires local boards of education to adopt policies authorizing students with asthma or anaphylactic reactions to possess and self-administer asthma medication on school property during the day or while in transit to and from sponsored events (North Carolina General Assembly, 2023). School staff may administer medication in County Public Schools only after completing the Parent or Physician Order for Medication Form. An example of such a form (Form 1702) is signed and returned to school-medication administered by a pharmacist with the student's name on the label (Wake County Public School, 2021).

Medical advances enable students with special health care needs or chronic conditions to attend school with their peers. However, the medical conditions may require medication administration during school hours. The school system must meet healthcare-

related needs essential for access to education as described in the Individuals with Disabilities in Education Act (IDEA). School districts policies should address administering prescription and nonprescription medications and protocols for administering medications. Policies and procedures should be reviewed periodically for revisions. The responsibility of school staff is vital to ensure medications are administered correctly according to state laws, written policies and procedures, and professional standards. Compliance with the sources in policies and procedures assures a safe process and limits errors [(NCDHHS, (n.d.)).

Policy Overview

Strategic policy initiatives in school settings are vital to children with asthma's health, growth, and learning. Children spend a considerable part of their day at school, where access to care and coordination of services with parents, children, providers, and school staff can be achieved. Implementing evidence-based care and self-management strategies in school settings effectively in managing chronic diseases such as asthma. However, school-based services need to be accompanied by public policies that can improve children's outcomes and sustain these outcomes (Bowman et al., 2020).

The most recent School Health Policies and Practices Study (SHPPS) states that 86.9% of schools in the United States have policies mandating that schools have asthma action plans (AAPs) documented for each student diagnosed with asthma. However, only 76.2% of US schools have policies for identifying students with asthma, and less than 70% have policies for tracking students with asthma (Bowman et al., 2020). Recent studies demonstrate the importance of enhanced asthma education. One study

demonstrated that although school nurses were aware of policies within their school on how to manage a child with asthma exacerbation, only 36% of teachers were aware of such policies. In addition, less than half of US schools have a policy stating that all students will have training about asthma, and only 66.5% of schools have policies requiring self-management education for students diagnosed with asthma. Seventy-five percent of schools offered training to teachers and staff; however, only 50% required specific training on reducing triggers or responding to emergencies for those who teach PE (Bowman et al., 2020).

The American Academy of Pediatrics also emphasizes the importance of school nurses in identifying the unmet needs of children with asthma. Recommendations from these policies are categorized into four themes: (1) providing optimal school health services, (2) enhancing asthma education for students and school staff, (3) providing a healthy school environment, and (4) managing physical activity. Adopting these policies is not widespread, resulting in inequities in access to asthma services. Nurse practitioners are positioned to bridge this gap by building awareness of the need for school-based asthma policies and advocating for the implementation of policies that support children to lead healthy and active lives (Bowman et al; 2020). Several benefits of asthma education have been documented. Educating children with asthma on self-assessment skills, use of medications, and actions to prevent or control exacerbations is associated with reduced urgent care visits and hospitalizations, reduced school absences, and improved health status (Burks et al., 2020).

Health policies inform decision-making strategies for funding health services. The health policy initiatives in North Carolina schools' impact other health-related policies critical to addressing major health problems. Health policies are only sometimes a rational process of discussion and evaluation among policymakers. Most healthcare policies are highly political, with a degree of provision for public interest (O'Brien et al., 2020).

School Nurse Overview

Students with asthma often lack the service of an on-site health care provider, such as a nurse, during school hours. Improving asthma knowledge and self-management is a focus that asthma education concepts build in the school system. To assess the developments in asthma education and their policy implications, educational stakeholders, parents, and caregivers must engage in informed decision-making processes that prioritize the well-being of students. By actively contributing to the implementation of policies that support effective asthma management plans, these stakeholders play a critical role in fostering a school environment that promotes health, safety, and academic success for students with asthma.

School nurses can advocate for daily managing chronic health conditions that may arise with students. (Lynn et al., 2014) determined that specific asthma policy implementation access to medication found school policies insufficient to ensure that all students have access to their medication during school hours. The school system faces many challenges with ensuring asthma students have an existing inhaler for school use. Schools often do not have existing medical permission forms from the physicians and

parents. The existing findings in gaps with public schools to implement asthma management programs are challenging because there are no current asthma action plans for the students.

Several schools have implemented asthma education programs to enhance the overall school health system. However, in many school districts, a single nurse is often responsible for serving multiple schools, presenting significant challenges to effective asthma management. This limitation makes it unrealistic, and in many cases impossible, for school nurses to administer all necessary medications to students, thereby highlighting the need for additional support, resources, and policy interventions to ensure comprehensive asthma care within the school setting.

The American Nurses Association (ANA) and the National Association of School Nurses (NASN) formerly recommended one school nurse to 750 students in a healthy population. North Carolina (NC) used this as a benchmark for its school nurse-to-student ratio. The American Academy of Pediatrics (AAP) and NASN now recommend a nurse in every school to allow daily access to a full-time school nurse to ensure student health. However, during the 2015-2016 school year, 58% of school nurses in North Carolina school districts were responsible for more than one school (Best et al., 2021).

School nurses provided health care plans and instructions to 105,326 asthmatic students during the 2018-2019 school year in North Carolina [NCDHHS, (n.d.)]. School nurses provided services to 17% of the student population with chronic health-related conditions in the 2018-2019 school year [NCDHHS, (n.d.)]. The school nurses in North Carolina are assigned a variety of activities, such as preventing and communicating

disease outbreaks, developing, and implementing plans for emergencies, providing specialized clinical services, medication care procedure oversight, assessment of healthcare needs, assuring mandated health-related activities are completed, provide health education and counseling, and assure a safe and healthy school.

During school hours, in the absence of a school nurse, designated school personnel are identified to provide health-related services to students. This approach ensures continuity of care; however, it also underscores the necessity for adequate training and policy support to equip these individuals with the necessary skills to manage asthma and other health-related needs effectively. Therefore, schools must be prepared to delegate and train unlicensed assistive personnel (UAP) to administer medications, following NC Board of Nursing regulations and guidelines, state regulations, and school policies. Considering student needs, nurse-to-student ratio, and other relevant information, the school nurse provides input to the principal in the medication administering [NCDHHS, (n.d.)].

Asthma Training for School Staff

The asthma education curriculum for school nurses and elementary school professionals is provided by the North Carolina Division of Public Health, Asthma Program, in conjunction with the Education and Public Awareness Committee of the Asthma Alliance of North Carolina [NCDHHS, (n.d.)]. The purpose of this curriculum is to provide asthma education to school nurses and school professionals in North Carolina to understand the needs of students with asthma. The curriculum reviews categories in what asthma is, common asthma triggers, signs, and symptoms, how asthma is treated

and managed, and asthma in school. The policy requirements for school staff can vary depending on the country, region, or school district. Asthma education and training may or may not be mandated in these policies. Some jurisdictions or school districts may have specific guidelines to educate school staff about asthma and its management, while others may not.

In North Carolina, asthma education training is not currently mandated within the policy requirements for school staff. This lack of formal policy highlights a critical gap in ensuring that school personnel are adequately equipped to manage asthma-related health concerns and support students in effectively managing their condition. However, most nursing personnel are aware of the trainings. According to the Asthma and Allergy Foundation of America (AAFA), core policy standards in North Carolina do not meet the state sponsors or provide funding for staff training in asthma awareness. However, there is funding for staff training in food allergies. The policy gap in North Carolina schools is the nurse-to-student ratio, and to adopt a policy that school districts provide case management for students with chronic health conditions such as asthma (AAFA, n.d.).

Summary and Conclusions

School systems aim for a healthy community where students can learn and thrive to be their best selves. The literature review analysis provided peer-reviewed articles on creating asthma education programs that will suggest ways for school systems to improve in areas for clinical support and asthma education policies. The literature provided clear guidance on the role of a school nurse and how they can impact the administrators, teachers, parents, and students with concrete suggestions based upon their assessment of

asthmatic children. I selected the narrative policy framework theory approach in this study because of the strategies of building a story and obtaining the perspectives of key stakeholders in the research developments. I reviewed the population, sample strategy, and participants in the methodology section for this research study in asthma education.

Chapter 3: Research Method

Introduction

This study examined criteria requirements in asthma education policy recommendations within elementary schools through administrators, teachers, and parents' views, thoughts, and opinions regarding childhood asthma and its impacts on (K-5) children during school hours. In this chapter, I introduce the research design and rationale of the study, the role of the researcher, the methodology, and establishing overall trustworthiness. In this chapter, I review qualitative methods that explored a general generic interview protocol I used.

Research Design and Rationale

The research question addressed the experiences of schoolteachers and parents with the criteria requirements for asthma education programs under North Carolina Public School requirements. This study explored the concepts from Maxwell (2012), an interactive design approach. The data collection shaped the description, interpretations, and theories created to understand the perspectives on asthma education criteria for teachers and parents, who are the key players in this study. The sub-set of participants was vital in this study to explain their knowledge about the asthma education policy and criteria requirements for asthma. The NPF theory allowed the participants to tell their perspectives on what occurs with students with asthma flare-ups during the school day. Many accounts in recent literature address the limitation of knowledge and understanding among educators, school staff, and school nurses regarding the effectiveness of

implementing asthma protocols. The sub-set participants provided connections, relationships, and timelines to an essential part of this study.

The research design explored Maxwell's (2012) interactive qualitative design approach. The qualitative research design was a reflective process operating through each project stage. Activities included collecting, analyzing data, modifying theory concepts, revising research questions, and identifying validity threats, which are components of the research design that influence each other. It is essential to align all aspects of the design in the applied research for asthma education policy to ensure the proper developments have occurred. The asthma education policy interactive model focused on the purpose, abstract concepts, methods, and validity related to the research question. The interview protocol was designed to allow for adjustments based on the flow of each interview. Each participant was asked the same questions, and I engaged them with prompts during the conversation. This approach gave the study a broader and less restrictive design concept.

This study's central concept explored stakeholders' perceptions about asthma education policies and whether those policies address the needs of children in CPS elementary schools. Asthma education programs in public schools will provide asthmatic students with the skills needed to control their asthma flare-ups. Asthma education will help students identify triggers and how to avoid triggers. The education platform can teach students how to use their peak flow meters and understand the peak flow process. Asthma education can provide resource guidelines for the students, specifically for medications and administering their medication, and new policy guidelines for school nurses and staff in public schools.

The asthma education policy study identified related legislation, barriers, and successes in asthma education policies in the CPS system. Peer-reviewed articles have demonstrated the need for improvements in school policies related to asthma education and new guidance to enhance current asthma education policies in public schools.

Role of the Researcher

My role as the researcher consisted of instrument design in the asthma education research study. I provided the data instruments for the study participants to generate supporting knowledge on asthma education policies for the CPS system. I maintained the confidentiality of selected participants, utilizing a coding system for each applicant to maintain autonomy in the interview and data collection. There were no known personal or professional relationships within the participant selection of this research study, nor did I have a supervisory or instructor roles. An unbiased approach to qualitative data analysis is essential to ensure the validity and credibility of the findings. The process began with thoroughly reviewing the collected data, including interview transcripts, observation notes, and other data sources. There were no anticipated ethical issues related to this study.

I was the crucial instrument in the research process by examining how the participants responded to open-ended questions. The instrument tool created for interviews allowed participants to explore two voices and reflective dialogue in narrative methods of inquiry. The data collection tool explored reasoning through inductive logic. The participants responded to the knowledge experiences of schoolteachers and parents

with implementing asthma education programs under North Carolina Laws. As a researcher, I built patterns, categories, and themes from the units of information gathered.

Methodology

Setting

The volunteer participants received an email with a scheduled meeting invitation confirmed with the respondent. The meeting invitation included the following documents asthma education consent form, the study flyer, and a welcome letter for the participant's review. A clear description of these documents was reviewed with each participant to ensure the anonymity of the interview session and open-ended questions. No organizational or personal conditions influenced the participants' experiences in the asthma education research study.

Demographics

In this qualitative study, I explored the lived experiences of five participants: three educators and two parents. The participants in the asthma education study were from a sub-set targeted audience, which included a qualification age limit of 18–75 years old, school staff, administrators, educators (K-5), school nurses, and parents with asthmatic children.

Participant Selection Logic

I conducted a generic qualitative inquiry that will provide a practical interpretation of experiences and relationships in a practical aspect. The study examined a sub-set population of (K-5) teachers, as well as parents of school-aged students in the public school system. These participants were invited to respond to semistructured

interview questions. Semistructured interviews were conducted with teachers, and parents of students with asthma, involved in asthma education programs. I used purposive sampling of five participants from each group to ensure representation from different schools and educational roles. This approach allowed the individuals to reflect on current asthma education criteria protocols for school staff related to the narrative policy framework. The sampling strategy will focus on critical concepts in legislation, barriers, and successes for future health-related programs in a public-school setting. The sampling strategy explored narrative inquiries that demonstrated learning from the conversation. The narrative inquiries addressed various theories and methods of studying conversations that yield narratives, either as data or as descriptions of actions and events to generate stories. The narrative inquiries examined methodological themes and issues, including (1) clarity of method; (2) issues of relationship, identity, and power; (3) the problem of structure; (4) studying conversational learning; and (5) implications of the narrative inquiries on practice and policy.

Instrumentation

This study focused on questions that allowed me, as the researcher, to increase knowledge about criteria requirements for asthma education policy programs in public schools. The data collected and analyzed from the study is stored on a file storage device, which is used to store, port, and extract data files for future use. The conceptual research context and the NPF theoretical relationship will create a connection in the asthma education policy study to serve as the triangulation point for the proposed study. The data

collection instruments are sufficient for the research study and will guide research methods.

Most narrative inquiries involve some conversation, from structured interviews to unstructured conversations and some form of systematic analysis (Hollingsworth et al., 2007). The development of the instrument explored open-ended interview questions related to the asthma education policy within the CPS. Many kinds of intersecting theories, ways of knowing, and questions frame the methods narrative researchers use to study talk (Creswell & Poth, 2016).

I conducted a test run of the interview protocol with 2-3 individuals who are friends to determine the flow of the protocol and how much time it takes for data collection. The data collection will not be used for findings. This is a practice of the interview protocol, which includes the following steps:

1. Schedule a meeting: Set up a meeting with the test participants, ensuring it is convenient for everyone involved.
2. Communicate the purpose: Communicate the purpose of the debriefing session to the participants. Let them know that their feedback is valued and will be used to refine the study design or procedures.
3. Provide a summary: Begin the interview session by summarizing the goals and objectives of the interview test instrument. Briefly overview the methodology, the data collected, and any initial observations or findings.
4. Conduct the session in person, over the phone, or through web video conferencing, depending on the feasibility and preferences of the participants.

Encourage open discussion. Create a comfortable and non-judgmental environment where participants feel encouraged to share their experiences, thoughts, and opinions about the interview test instrument. Ask semi structured questions and actively listen to their feedback.

5. Debrief for interview process improvement: Ask test participants about the strengths and areas for improvement related to the interview protocol. Discuss the interview test instrument process. What modifications are required to improve the interview process?
6. Note participant feedback: Take detailed notes during the instrument test session to capture important points raised by the participants. This information will be valuable when analyzing the pilot test results and making necessary adjustments to the study design.
7. Thank participants: Express my gratitude to the participants for their time, effort, and valuable input. Let them know that their contributions are essential for the success of the research study.
8. Analyze feedback and adjust: Once the debriefing sessions are complete, review the feedback received from participants, identify common themes or patterns, and use that information to refine the research methodology, instruments, or procedures as needed.

Population

I interviewed five participants using an interactive and participatory qualitative process that will allow for inquiry questions during the research study. I used face-to-face

interviews, video web conferencing, and, as a last resort, telephone conference calls for data collection. I analyzed themes, patterns, and categories from sample size to determine saturation, which means new data no longer provides additional insights or changes to the existing patterns. Saturation indicates that you have collected enough data to address your research objectives. Maintaining a neutral and objective stance as an investigator is crucial to ensure the integrity and validity of data collection in qualitative research. I considered the culture and knowledge among the participants to create trust and be an authentic researcher. I journaled my experiences with my own biases, assumptions, and preconceived notions before starting data collection. I reflected on my background, experiences, and beliefs that might influence interpretation of the data. This self-awareness is essential for minimizing the impact of personal biases on the data collection process.

The frequency of data collection events was time-sensitive for the sub-set participants because the academic school year consists of 10 months of the calendar year. I recruited participants in the third and fourth quarters of the academic school calendar year. Once the participants were selected, I began the data collection process with participants in the fourth quarter of the academic year. During the fourth quarter of the academic year, I began the coding process and abstract data analysis from participants to interpret the data for findings and recommendations. As the researcher for this study, it is undertaking a rigorous approach to obtaining the data collection necessary for the project. The time-consuming process of data analysis created complexity in the interpretation of data collection. During virtual interview sessions, the data recording optimized the

Microsoft Office Application software package. I used a voice recording device to capture the dialogue when conducting face-to-face interviews with participants. The importance of narratives comes from analyses or interpretations of the conversation.

There will not be a follow-up procedure for sub-set participants. As the researcher in this study, the collaboration of stories from the respondents during the data collection process will close out the study. The narrative research framework model created key themes between relationships and dialogue with participants. During the final stage of data collection process, I added a validation check to the data analysis (Creswell & Poth, 2016). This process allowed more insight into participants' experiences in asthma education programs at the CPS system. The debriefing process for research participants consisted of chronological experiences that provided a guide for future program plans. The stories from participants may require reorganization to gather consistency in the storytelling process.

Procedures for Recruitment, Participation, and Data Collection

Recruitment procedures for this study focused on a sub-set target audience, which includes a qualification age limit of 18-75 years old, school staff, administrators, educators (K-5), school nurses, and parents with asthmatic children. Participant involvement consisted of virtual video or face-to-face open-ended interviews for the data analysis collection. The location of this study was a virtual platform location that was confidential, and safe for the participant and researcher. Volunteered participants received an email with instructions and description for the asthma education study. Participants received a \$5.00 Starbucks Gift Card for their participation in the study. The

potential benefits from participation in the study will improve asthma knowledge and health awareness outcomes.

The recruitment of participants will derive from a research announcement flyer on a social media platform and on-site facilities with the CPS school system. (see Appendix A). To enhance achieving a significant sufficient data collection, I utilized snowball and networking sampling. I scheduled the meetings with respondents through my Walden University email. I included my email to set up a meeting with respondents to participate in the study. The invitation to the meeting will include a brief description of the study and inform respondents that their feedback is valued and will be used in the study design or procedures. I will thank each respondent for participating in the study after each session. (see Appendix B)

Conducted face-to-face interviews, which will be held in a location that is quiet, confidential, and safe for the participant and investigator. Request their interest in a qualitative asthma education research study utilizing the Walden University sample permission forms (see Appendix C). In addition, I offered participants the option of audio/video web conference interviews for the asthma education program study in the privacy of my home office location. As a back-up for interviewing respondents, I conducted telephone conference calls. I have included a protocol on the audio/video process to ensure confidentiality during the study. (see Appendix D)

As the investigator in this study, I developed an interview protocol consisting of semi-structured questions to collect fundamental data while ensuring the anonymity of each participant. Following each interview session, I transcribed the data verbatim from

multiple sources, including recorded transcripts, journal notes, audio recordings from telephone conversations, and electronic email communications. These transcriptions were meticulously reviewed to ensure content validity, maintaining the integrity and accuracy of the data throughout the research process. (see Appendix E)

Data Analysis Plan

The coding process involved entering the text or visual data into categories of information to seek evidence for the codes used in various databases. I developed a list of codes that will match text into categories and review my database for the themes and patterns for data analysis, allowing for interpretation (Creswell & Poth, 2016). The identified software for data analysis was the Delve Tool qualitative data analysis software package. I conducted the data analysis for this research study, along with the qualitative data analysis in the qualitative data interview transcripts, providing reliability and validity in the data analysis process. The discrepant cases will be addressed in a case-by-case situation to determine errors during the data collection.

A code in qualitative data analysis is often a word or short phrase symbolically assigned to a summative, salient, essence-capturing, and evocative portion of language or visual data (Saldana, 2021). The data analysis consisted of inquiry into open-ended interview transcripts, face-to-face or video web conference of participant observations, journal field notes, and email correspondence as a back-up to this process.

I conducted a two-cycle coding process for data analysis. The first stage focused on a single word, a complete paragraph, or an entire page of text from the participants. The second cycle focused on same units, passages of text, and critical links between data

collection and explanation of meaning as I analyze the data from each participant during the data collection process. I included a hybrid approach that will include a deductive and inductive coding process as I explored data sets in the subject matter for the qualitative study. Once I completed the data analysis, the second cycle of synthesizing will occur. During the second cycle, I combined words, paragraphs, and pages to form new themes and patterns for this study (Saldana, 2021).

The preliminary coding framework presented below serves as an initial guide for assigning codes to categorize data extractions. These codes facilitated the identification of recurring patterns and themes, which were essential for the subsequent analysis of the study data. Through this systematic approach, I was able to organize the data in a way that allowed for meaningful interpretation and analysis aligned with the research objectives. These codes were created by using the five core assumptions of (Shannon et al., 2011) narrative policy framework.

- Familiarity with State Legislation: Asthma
- Education Policy
 - Barriers: Asthma Education Policy
 - Success: Asthma Education Policy
- Social Construction, Bounded Relativity, Generalizable Structural Elements, and three interacting levels of analysis consist of micro (individual), meso (group), and macro (cultural and institution), also included are the Homo Narrans model of the individual environment (Shanahan et al; 2018; Shanahan et al; 2011).

- State Legislation or Policy
- Barriers or Impediments
- Success or Achievement

The qualitative analytic process for this study was reviewed in the first cycle methods of coding, which consisted of grammatical, elemental, affective, literary, language, and exploration. (Saldana, 2021). I used a coding process that was appropriate for methodology consideration as data collection evolved. I also included semantic relationships in the coding process.

This study explored the criteria requirements for asthma education policy recommendations within elementary schools, focusing on the perspectives of administrators, teachers, school nurses, and parents regarding childhood asthma and its impacts on K-5 students during school hours. By gathering insights from these key stakeholders, the study aimed to better understand the challenges and needs associated with asthma management in the school environment, ultimately contributing to the development of more effective asthma education policies. The data collection tool referred to participants' knowledge about the asthma education policy for the CPS system. I gave each participant an interview checklist as code identification purposes as a participant in the study (i.e., study participant A1, B2, C3, etc.). for organizational participation selection. There are no demographics in this study. This study focused on the criteria requirements for public school asthma education policies.

The participants received a recruitment letter and a copy of the participant consent form to sign. Participants maintained the original recruitment documentation of the

research study. I maintained a copy of the signed consent form. I scheduled one-on-one meetings through email invitations with the selected participants to perform open-ended interview questions for data collection. The meetings took place virtually through a video platform using Zoom. Data collection from each interview was transcribed by the research using qualitative data software Delve. Once data was extracted from the interview recording, I analyzed the data using a single word, the passage of phrases, or an entire page of word context that was interpreted from individual interviews from QDA software or Microsoft Word. I reviewed the study's categories, themes, and patterns to connect the NPF theoretical framework to the study. The interview recordings were saved and stored on a computer device for future use.

Reviewing the categories from interviews after reaching data saturation is an essential step in the data analysis process. This helps ensure that specific analysis captures the richness and depth of the data collected. Begin by transcribing the interviews verbatim or using professional transcription services. Familiarized myself with the content by reading and re-reading the transcripts. This step helps you gain a comprehensive understanding of the data. Started the analysis by engaging in open coding. Read the transcripts line by line and identify meaningful units of data, such as phrases, sentences, or paragraphs, which relate to the research objectives. Assigned descriptive codes to these units to label and categorize them. The initial codes were inductive, emerging directly from the data. Once the set of initial codes, grouping of similar codes to form categories. I looked for patterns, connections, and themes within the categories. These categories reflected the main topics or concepts that emerged from

the data. Engaged in constant comparison during the category development process. Compared new codes and themes with existing categories to identify relationships, similarities, or differences. This iterative process helps refined and expand the category framework. During the category review, pay attention to the specificity of the analysis captured in the categories. Ensured that the categories capture the nuances, depth, and diversity of the data. If needed, further breakdown or refine codes to capture more specific themes or sub-themes.

Finally, presented the data analyzed in a clear and organized manner. Used quotes or excerpts from the interviews to support your interpretations. Provided a thorough explanation of each category and its significance in relation to the research questions or objectives.

Data Collection

The asthma education collection began with Walden University IRB approval on March 18, 2024. The Walden University IRB approval number for this study was 03-18-24-0343127. I followed the research study protocols that were approved by Walden University IRB. I began the research study with an initial flyer distributed throughout local public businesses and schools within my area to bring awareness for volunteered research respondents. I contacted three local elementary schools and spoke with school staff to schedule one-on-one meetings with the principals to discuss the research study. I was advised by the principal to email the teachers about the research study. I emailed a total of thirty-five teachers the flyer and an introduction of the asthma education research study to recruit potential volunteers. I followed the key elements in a narrative inquiry

approach Jones & McBeth (2010), to explore methodological focus in capturing the experiences.

The flyers resulted in five people responding to participate in the study. Each participant responded with an initial telephone call to meet and discuss the asthma education recruitment flyer. The meeting invitation was scheduled through zoom meeting platform. The interviewed meeting lasted for approximately 45 minutes. The respondents received a welcome letter and consent form, which they acknowledged at the time of the meeting and proceeded with the volunteered anonymous open-ended interview session. The research interview consisted of narratives on the three overarching topics from the literature that generated the interview questions. These topic areas were state legislation protocols for asthma education, barriers in asthma education protocols, and success in asthma education protocols. Each participant was asked nine questions that related to these topic areas within their specific school or in the case of parents regarding their child. The interview questions explored narratives by identifying the characters, plots, and social descriptions of the experiences from each participant.

All interviews were recorded through the zoom meeting platform. Once the recording was saved onto the zoom platform, I was able to download the transcription and save the information onto a jump drive for security and confidentiality of the recordings. I transcribed each participant interview utilizing a qualitative data software application called Delve Tool. The qualitative data software provided data words, phrases, and context for interpretation and data analysis in the asthma education research

study. There were no unusual circumstances presented or encountered in the data collection of this study.

The variations in data collection from the proposed plan consisted of the zoom video platform to conduct open-ended interviews, participants received the reviewed and acknowledged the consent form and welcome letter before participating in the volunteered interview session for asthma education programs.

Issues of Trustworthiness

Trustworthiness in this qualitative research study measured how other researchers and stakeholders viewed the value of the asthma education policy criteria for public schools. The study process included documentation from interviews to conduct data collection and analyze data. The research study internal credibility validity could affect maturation. Participants' experience during the research data collection process could account for the outcomes. Thus, unable to conclude with certainty that the intervention caused the effect, could be due to the natural change/maturation of the participants (Cook et al; 2007). The instrument measured changes over time, thus making it difficult to determine if effects or outcomes are due to the instrument of behaviors they are tracking or if the researcher alters the administration of test items from pretest to posttest (Cook et al., 2007).

Enhanced the credibility of the analysis by conducting triangulation, comparing data from multiple sources or perspectives. Additionally, consider member checking, where you share the categories or themes with participants to validate the accuracy and alignment of their perspectives with the analysis. Once I have reviewed and refined the

categories, I moved to the interpretation phase. Analyzed the relationships between categories, identified overarching themes, and developed a coherent narrative or explanation based on the data. Looked for patterns, deviant cases, or contradictory information that may provide deeper insights.

The methodology reviewed a triangulate analysis procedure consisting of structured analysis approach consistent with word-text with a constructivist view of a multilayered reality to find themes or patterns. Conducted a structural word-level analysis of a more positive stance, such as situated meaning, syntax, semantics, and grammar, to support the interpretations and applied literary criticism analysis using both word-level findings, such as figurative language, and complete text analysis, such as plot and theme.

Ensured trustworthiness in the asthma education study to establish transferability of thick description procedures, context, & participants in sufficient detail to permit judgment by others of the similarity to potential application sites; specify minimum elements necessary to recreate findings (Lincoln & Guba, 1985). The strategies in raw data documentation to establish audit trails and multiple sources as it relates to methods in triangulation was determined by data collection, data analysis interpretation characteristics that are in the natural state of the study. The confirmability of this study was determined by data, findings, interpretations, and recommendations as it relates to reflexivity (Lincoln & Guba, 1985). Dependability of audit trails were validated through participant checking by comparing key themes to confirm accuracy. Used triangulation to cross-verify results with other data sources or methods if available. I used the appropriate interview instruments to manage the confirmability in the selection of sub-set research

questions with the participants. However, in this study, the intra and intercoder reliability provided by the participants, which consisted of teachers, and parents.

Ethical Procedures

The recruitment flyer, recruitment letter invitation for email, print, and social media communication to participants, which included a study description, along with criteria requirements to participate in the study. In addition, a Walden University consent form for participants over 18 years of age, audio/video protocol, and interview protocol will appear in the Appendix section of the research proposal.

The treatment of human participants will be protected in compliance with federal regulations and Walden University policies. There are three basic ethical principles: respect for a person, which means the subjects enter the research study voluntarily. Beneficence means doing no harm and maximizing possible benefits, and minimizing possible harm, and justice indicates that no research subject is selected because of easy access to the research study (O'Sullivan et al; 2016). The required ethics forms will allow Walden's Department of Research Ethics, Compliance, and Partnerships (RECP) to determine which ethics forms and Institutional Review Board (IRB) review steps the research would be required to meet the standards in compliance with federal regulations and university policies. (See Appendix Section for the IRB Permission Form).

Ethical considerations play a crucial role in any data collection process. When it comes to participant privacy, power relationships, data storage, and security, researchers should uphold certain principles to protect the rights and well-being of participants. The ethical risk for this study will identify minimal risk to participants. I turned off IP address

tracking when conducting anonymous online. Following the interviews with research subjects I reiterated the purpose of the asthma education study to the participants for their clarity and understanding. Participants were able to read the required information about the informed, voluntary consent form, make an informed decision about the study, and commit as a participant. The informed consent form protected and respected the participants' autonomy and personal dignity.

I created a secure file in the operating system for data collection tools, informed consent forms from participants, recruitment letter, interview questions, and sub-set interview questions for privacy. The data is archived in an online cloud application for future references. The data collection files remain in the online cloud storage application for a lifetime as the asthma education study develops new patterns, theories, and categories in research. I have access to research data for this study. Data will not be shared with future researchers without permission. I will provide conflict-of-interest forms with the asthma education community when conducting research with educators, administrators, and community partners that are considered as researchers in the field. There are no foreseeable ethical issues with my current employment.

Summary

In summary, the qualitative research explored research objectives with educators' and stakeholders' perceptions of state legislation on asthma education criteria. The study analyzed narratives used by educators and stakeholders when discussing legislation, barriers, and successes related to asthma education criteria. This study identified common themes framing strategies in the narratives that influence perceptions. The study consisted

of a qualitative approach that employs qualitative research methods to capture in-depth insights into participants' perceptions and narratives.

I have developed an interview guide with semistructured open-ended questions that explored participants' perceptions of state legislation, barriers faced, and perceived successes in asthma education criteria. I recorded and transcribed interviews to ensure accuracy in capturing narratives. I applied the (NPF) to analyze the collected narratives. The research identified key elements of each narrative, such as characters, plotlines, causal attributions, and moral evaluations. I analyzed narratives for recurring themes and framing strategies used by participants when discussing legislation, barriers, and successes.

I obtained informed consent from all participants before conducting interviews. Ensured participant confidentiality and anonymity throughout the research process. Adherence to ethical guidelines when dealing with human subjects is vital to the research and I followed the policies pertaining to human subjects. The research followed procedures to conduct thematic analysis of the transcribed interview data to identify common themes related to perceptions of legislation, barriers, and success in asthma education criteria. I correlated themes with NPF elements to understand how narratives shape participants' perceptions. Interpreted the data within the context of NPF elements to understand the impact of narratives on perceptions.

In Chapter 3, I introduced the purpose of this study, restated the research question, provided an overview of the participant selection, explain a detailed model of the data instruments that is utilized in the study, and explain the critical facets related to

recruitment and participants. In this chapter, I gave readers the knowledge for valuable strategies to create methods in an asthma education policy for public schools. Chapter 4 of this study, I summarized the key findings, emphasizing how narratives influence perceptions of asthma education criteria.

Chapter 4: Results

Introduction

Asthma is one of the leading causes of school absenteeism. Public schools play a vital role in coordinating asthma care. This study examined asthma education policy recommendations in elementary schools in one school district by exploring the views, thoughts, and opinions of educators and parents regarding childhood asthma and its impact on (K-5) children during school hours. The research question asked what experiences school administrators, teachers, and parents have with criteria requirements for asthma education programs under North Carolina Public School requirements. The significant sections for Chapter 4 consisted of the introduction, setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and summary of the asthma education research study.

Setting

The volunteer participants received an email with a scheduled meeting invitation confirmed with the respondent. The meeting invitation included the following documents: an asthma education consent form, the study flyer, and a welcome letter for the participants' review. A clear description of these documents was reviewed with each participant to ensure the anonymity of the interview session and open-ended questions. No organizational or personal conditions influenced the participants' experiences in the asthma education research study.

Demographics

In this qualitative study, I explored the lived experiences of five participants: three educators and two parents. The participants in the asthma education study were from a sub-set targeted audience, which included a qualification age limit of 18–75 years old, school staff, administrators, educators (K-5), school nurses, and parents with asthmatic children.

Data Collection

The asthma education collection began with Walden University IRB approval on March 18, 2024. The Walden University IRB approval number for this study was 03-18-24-0343127. I followed the research study protocols that were approved by Walden University IRB. I began the research study with an initial flyer distributed throughout local public businesses and schools within my area to bring awareness to volunteered research respondents. I contacted three local elementary schools and spoke with school staff to schedule one-on-one meetings with the principals to discuss the research study. I was advised by the principal to email the teachers about the research study. I emailed a total of thirty-five teachers the flyer and an introduction to the asthma education research study to recruit potential volunteers. I followed the key elements in a narrative inquiry approach (Jones & McBeth, 2010) to explore a methodological focus in capturing the experiences.

The flyers resulted in five people responding to participate in the study. Each participant responded with an initial telephone call to meet and discuss the asthma education recruitment flyer. The meeting invitation was scheduled through the Zoom

meeting platform. The interview meeting lasted for approximately 45 minutes. The respondents received a welcome letter and consent form, which they acknowledged at the time of the meeting, and proceeded with the volunteered anonymous open-ended interview session. The research interview consisted of narratives on the three overarching topics from the literature that generated the interview questions. These topic areas were state legislation protocols for asthma education, barriers to asthma education protocols, and success in asthma education protocols. Each participant was asked nine questions that related to these topic areas within their specific school or in the case of parents regarding their child. The interview questions explored narratives by identifying the characters, plots, and social descriptions of the experiences of each participant.

All interviews were recorded through the Zoom meeting platform. Once the recording was saved onto the Zoom platform, I was able to download the transcription and save the information onto a jump drive for the security and confidentiality of the recordings. I transcribed each participant interview utilizing a qualitative data software application called Delve Tool. The qualitative data software provided data words, phrases, and context for interpretation and data analysis in the asthma education research study. No unusual circumstances were presented or encountered in the data collection of this study. The variations in data collection from the proposed plan consisted of the Zoom video platform to conduct open-ended interviews; participants received the reviewed and acknowledged consent form and welcome letter before participating in the volunteered interview session for asthma education programs.

Data Analysis

I began by thoroughly reviewing the uploaded transcripts to gain an overall understanding of the content. This involved repeated readings to familiarize the data and note initial observations and ideas. I used an open coding process to identify and label meaningful units of text. Each code reflected a specific idea, concept, or phenomenon emerging from the data. This step is exploratory and aims to capture as much detail as possible. I organized the initial codes into broader sub-categories based on commonalities or relationships. This involved grouping similar codes and refining their definitions to ensure they accurately represent the data and then analyzing the sub-categories to identify larger, overarching themes. These themes represent the central ideas or patterns that emerged from the data, providing a deeper understanding of the narratives within the transcripts.

The next step is to continuously revisit the transcripts, codes, sub-categories, and themes to ensure alignment and coherence. This iterative process helped refine the relationships between codes and ensured that themes accurately represented the data. Next is to employ narrative inquiry methodology to construct a cohesive narrative that links the themes and sub-categories. This step involves interpreting the data through the lens of the identified themes and creating a comprehensive representation of the findings.

Then, the themes and sub-categories are validated by cross-checking with the raw data. Triangulation helps ensure the findings' credibility and trustworthiness. The coding process is documented, along with the decisions made, and final themes and sub-categories to maintain transparency and enable replication or review of the analysis. This

inductive process ensures a systematic and rigorous approach to moving from individual coded units to broader themes, providing a structured yet flexible framework for analyzing qualitative data in the asthma education research study.

I applied the narrative inquiry approaches in the research study to determine the inductive coding patterns for a connection and themes within the sub-categories. The inductive coding was based on *priori codes* that included familiarity with state legislation on asthma, education policy barriers, and successes (See Appendix E). These codes provided patterns and themes that were derived from the literature in the asthma education study. The line-by-line coding analysis provided data that was primary in the asthma education study. Five themes emerged from the data analysis: collaboration between nurses and staff, the effectiveness of protocols, training and awareness, communication gaps, and parent involvement were the consistent themes from the data collection.

Table 1

Frequency of Participants Responses in Number of Snippets of the Themes

Order of Code in List	Code Name	Participant A01	Participant A02	Participant A03	Participant A04	Participant A05
Theme	Parent Involvement					
Sub-code	teachers	4			12	2
Sub-code	school	17	5	8	25	9
Sub-code	asthma	11	5	4	3	5
Sub-code	education	9	1	2	7	2
Theme	Communication Gaps					
Sub-code	expectations	1			7	1
Sub-code	student responsibility	13			18	8
Theme	Training and Awareness					
Sub-code	training	6	1	5	15	2
Theme	Effectiveness and Protocols					
Sub-code	impediments		1	1	4	
Sub-code	barriers	5		3	4	
Sub-code	policy	9	2	7	9	4
Sub-code	achievement		2	1	6	
Sub-code	success	1	2	3	11	4
Sub-code	state legislation	4	1	3	1	1
Sub-code	time	1		1	2	
Theme	Collaboration Between Nurses and Staff					
Sub-code	communication	9	6	7	24	3
Sub-code	asthma plans	4			4	1
Sub-code	nurse	12	12	9	16	4
Sub-code	medication	10			7	3
Sub-code	physical activity	1			8	3

Note: Snippet frequencies = to the number of participants' responses that are connected to themes.

The analysis captured the connection between codes and themes that were mentioned in previous chapters of the asthma education research study. The theoretical framework (Jones & McBeth, 2010) was the narrative policy framework, which allowed me to ask significant questions that provided interpretations to the data collection for this study. The participants had recurring responses as it relates to collaboration between staff and nurses, effectiveness in protocols, training and awareness, communication gaps, and parent involvement. These series of themes provided a consistent overview of the areas where improvements can be made. The data analyzed were interpreted through significant excerpts from participants interviewed that provided significant connections through the research themes which are correlated with relationships.

Evidence of Trustworthiness

I considered the credibility of the analysis by conducting triangulation within the data collection from the participants' perspective. I considered data checking when data were shared through qualitative data analysis applications to obtain categories or themes to validate the accuracy and alignment of participants' perspectives with the analysis. Once I reviewed and refined the categories, I moved to the interpretation phase. Then, I analyzed the relationships between categories, identified overarching themes, and developed a coherent narrative based on the data. I looked for patterns, deviant cases, or contradictory information that may provide deeper insights into the data analysis.

I ensured trustworthiness in the asthma education study to establish the transferability of description procedures, context, and participants in sufficient details to permit judgment by others of the similarity in potential application sites and specified

minimum elements necessary to recreate findings (Lincoln & Guba, 1985). The strategies in raw data documentation established audit trails as related to methods in triangulation determined by data collection, data analysis, and interpretation characteristics that are the natural state of the study. The dependability of audit trails was validated through participant checking by comparing key themes to confirm accuracy. The confirmability of this study was determined by data, findings, interpretations, and recommendations as it relates to reflexivity (Lincoln & Guba, 1985). I used the appropriate interview instruments to manage the confirmability in the selection of sub-set research questions with the participants.

Results

The qualitative study examined a small population of five (K-5) teachers, and parents of school-aged students in the public school system. The participants were invited to respond to semistructured interview questions. I conducted a generic qualitative inquiry that provided practical interpretation in experiences and relationships in a practical aspect.

I addressed the following research question in the asthma education study: How do educators and stakeholders involved in North Carolina public schools perceive legislation, barriers, and successes of asthma education criteria?

The data collected for this study was coded and then thematical coded and analyzed utilizing qualitative software from the interview transcripts. Data analysis was based on the provided codes, identified key themes and insights from the snippets across the transcripts. Here are the thematic categorizations and main observations.

Theme 1: Collaboration Between Staff and Nurses

The first theme in this research study identified the importance of collaboration between staff and nurses (see Table 2). A list of codes that were significant to this study consisted of word codes that focused on communication, asthma plans, nurse, medication, and physical activity. These words were mentioned throughout the five interviews.

Several participants highlighted the role of school nurses and how they collaborate with teachers to manage students with asthma. For example, Participant A02 mentions that “the nurse lets us know things” and is involved in teaching both the children and their parents about asthma management. Similarly, Participant A04 states that the school nurse communicates expectations and protocols to ensure a clear plan of action.

Participants also emphasized that state laws related to asthma education aligned closely with the sub-code for state legislation. These specific laws and policies highlight the legal frameworks governing asthma education in North Carolina, a critical component of state legislation. Participant A01 noted “guidelines are if the child has an asthma flare up during school hours” or so the guidelines of the teachers are not responsible. Another quote from Participant A03 noted “medications are assigned by the doctor, and then, you bring in your medications, and everything is labeled, and they have stored in appropriate places”. These are all experiences that allow the state laws for asthmatic children, parents, teachers, and nurses to be involved in with the current state requirements for healthcare during school hours.

Theme 2: Effectiveness of Protocols

The second theme in this study focused on effectiveness of protocols. This area of the study referenced the effectiveness of established protocols in managing asthma incidents at school (see Table 2). Participant A03 noted “that there have been no serious incidents related to asthma, indicating that the protocols in place are working effectively”. The code words that contributed to this theme were impediments, barriers, policy, achievement, success, state legislation, and time. The study showed evidence that protocols have a purpose and work effectively, highlighting a successful outcome for students. Participant A04 noted “specific barriers to effective asthma management in schools, the absence of medical staff”. Participant A03 noted “that having medical personnel available is crucial for a proper response to asthma attacks indicating that the lack of such resources is a significant barrier to ensuring student safety and health”. Another quote from participant A04 noted “specifically the lack of funding, which is a critical issue affecting the availability of necessary services like school nurses”. Participant A04 noted that asthma flare-ups increased in the classroom this year, and we had a student that participated in a hike and experienced an asthma flare-up. Participant A05 noted that “...either, a teacher was saying, to the student, go ahead and get your inhaler or the child/student would say, I need my inhaler, or something like that, and then they would just immediately get it”. Participant A05 noted that I am familiar with the protocol, and how the process works at school.

Theme 3: Training and Awareness

The third theme focused on the importance of training for staff and students in asthma management, which was emphasized (see Table 2). The focused code was training. The necessity of training teachers and staff to handle asthma situations effectively is vital to having a successful asthma education program. The need for clear communication and adherence to student plans, indicating a gap in training that could be improved was a significant result in the study.

Participant A03 indicated that “the communication efforts made through training are a key aspect of ensuring that protocols are understood by staff”. A quote from Participant A04 indicated that “the communication efforts made through training are a key aspect of ensuring that protocols are understood by staff.” Participant A05 indicates that “I would invite and give our school nurse time within our grade level for training requirements.” Participant A04 discusses the need for clear communication and adherence to student plans, indicating a gap in training that could be improved.

Theme 4: Communication Gaps

The fourth theme indicated potential communication barriers between staff, students, and parents (see Table 2). The code words developed in this theme focused on expectations, and student responsibility. Several participants pointed out that communication could be better regarding students’ needs. The need for better communication between the child experiencing an asthma crisis and school staff is essential for the student during school hours. This theme is an imperative concept in this study.

Participant A01 highlights the need for better communication between the child experiencing an asthma crisis and school staff. Participant A05 noted that “the barriers that would be communicated between the child and their asthma crisis is significant in communication with the teachers and nurses during school hours.” Another quote from a Participant A01 indicated “the importance of the child obtaining their medicine during an asthma flare-up.” The dialog between all parties at school is vital to the healthcare needs of asthmatic children during school hours. Quote from Participant A01 noted “the child may have to get their medicine if a flare-up occurs during school hours.” “The guidelines are if the child has an asthma flare up during school hours.”

Theme 5: Parental Involvement

The role of parents in managing students’ asthma is also a recurring theme (see Table 2). The code words focused in this theme were teachers, school, asthma, and education.. The quote from Participant A04 noted “the barriers to having nurses in schools, citing budget cuts and lack of funding as the reasons for the absence of these essential services. It clearly illustrates the systemic issues that prevent the implementation of necessary health services in schools.” Participant A02 noted “that a specific communication barrier that affects the implementation of asthma protocols, emphasizing the importance of effective communication in crisis situations. This is an example of communication break-down between parents, teachers, nurses, and medical team to provide guidance with the medical communication during school hours.

The action plans are the guidelines for the student asthma care while at school. However, these instructions are not effectively communicated and are not followed

through by school staff, child, or nurse.” Participant A01 noted “that the guidelines are if the child has an asthma flare up during school hours, the child has to get themselves has to tell their teacher they’re having an asthma, asthma flare up or attack, and the child has to go to the office to get their asthma.”

The importance of involving parents and keeping them informed about their child’s health needs is vital. This collaboration is essential for effective asthma management in the school environment.

Summary

The analysis reveals that, although effective protocols and a collaborative approach among school staff and nurses exist, there are still notable areas for improvement in training, communication, and parental involvement. Additionally, the study's data analysis highlighted gaps in policy, asthma management, communication, and nursing practices. Addressing these gaps is crucial to enhancing asthma education policies in public schools and ensuring improved health outcomes for students with asthma. In Chapter 5, I will discuss the interpretation of these findings, the limitations of the study, offer recommendations, explore the implications, and provide a comprehensive summary of the asthma education research study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The study emphasized the need to improve asthma knowledge and educational developments for school personnel, including secretaries, counselors, and paraprofessionals, who primarily worked in the main office. Decision-making strategies were discussed to implement asthma education policies and determine school systems' state laws, barriers, and success in funding asthma education policies. The study also highlighted developments in successful asthma education policies that allowed for interventions and school health strategies within school programs.

The asthma education qualitative study required a reflective process throughout every stage of the project. As the researcher, it was essential that I elaborate on connections and relationships within the research design. Data collection and analysis activities focused on a generic qualitative research method involving semi open-ended interviews with participants. Although I had hoped for a larger number of participants, I was able to conduct in-depth discussions with five individuals. While the findings provide valuable insights, they may have limited transferability to other schools due to the narrower scope of data points.

Interpretation of the Findings

The study explored issues that impacted asthma education programs in public schools. The data analysis provided confirmability of the knowledge that is needed to increase awareness about asthma education programs in public schools and to bring social change into this health equity issue in public schools. The disbarment between

funding and school nurse shortage is critical to improving school-based asthma management programs.

The literature review in Chapter 2 examined gaps in education for asthma effectiveness in public schools and included a review of the narrative policy framework (Shanahan et al, 2018). The literature review also provided an overview of asthma education programs throughout the United States, with a focus on North Carolina public schools. From the perspective of the NPF, the study underscores the importance of collaborative narratives that engage key stakeholders, such as school nurses and teachers, to support children with asthma. These narratives emphasize the role of school staff in fostering a supportive environment to ensure students remain healthy during school hours. The findings highlight how effective protocols serve as policy tools embedded within these narratives, reinforcing a storyline of preparedness and responsiveness. This aligns with the NPF's focus on how policy narratives crafted through shared experiences and aligned with evidence-based guidelines shape the development and implementation of effective asthma management strategies in schools.

The study data explored findings in gaps that are vital in asthma education programs. The gap in communication identifies a specific barrier to effective asthma management in schools: the absence of medical staff. Having medical personnel available is crucial for a proper response to asthma attacks, indicating that the lack of such resources is a significant barrier to ensuring student safety and health. Past findings from Lynn et al. (2014) argued that creating access to asthma care and management is the next step to identifying how to pass public policy. Bruzzese et al. (2009) also agreed that

providing access to care at school is widespread in most public schools in the United States. Adkinson et al. (2013) argued that asthma education of children focuses on self-assessment skills, medication use, and actions to prevent asthma flare-ups. These scholars all recommend improving asthma care and management of programs within the school system. The school funding sources are determined at the federal, state, and local levels; most of the southern states experience allocation in funding resources because they need more. McGill (2011) stated that more existing funding resources for asthma education in the Southern states need to be available.

Another finding from the study explored training and awareness and how this component is key in public schools. The training and awareness component is an essential function of the school nurse who is fostering skill sets such as assessment of asthma and knowledge of trigger signs. An asthma education curriculum for public schools will provide educators and paraprofessionals with the essential skill sets to manage common asthma triggers, signs, and symptoms for asthmatic children. Asthma education and training may or may not be mandated in policies. Some jurisdictions or districts may have specific guidelines to educate school staff about asthma and its management, while others may not.

Parent involvement support was an important aspect of the study that would require improvements. Parents are encouraged to build a relationship between school nurses and teachers to ensure that their child is experiencing a healthy, active day during school hours. The perspective on children's understanding of asthma flare-ups is central to the discussion of asthma as a condition affecting children.

Limitations of the Study

The asthma education research study did not incur any limitations to trustworthiness that were not mentioned in Chapter 1. An important limitation of this research study was the timing needed to conduct the study. The IRB approval occurred during the Spring quarter of the public-school year. The public schools were gearing up for spring break and Easter holiday. The timeframe limited the data collection process as the school systems were out for breaks. However, data collection took place at a time when it was beneficial for the participants to provide feedback. The participants provided feedback that was not subject to biases or distortions during the interview sessions.

Recommendations

The study identifies specific barriers to effective asthma management programs in public schools in the absence of school medical staff. One participant suggests that having medical personnel available is crucial for a proper response to asthma attacks, indicating that the lack of such resources is a significant barrier to ensuring student safety and health. The relevant data analysis focused on the lack of school nurses within the school system to assist with asthmatic children's daily healthcare needs. The study examined healthcare training components for staff that are essential to asthmatic children and their families. The need to have trained school staff, teachers, and administrators during school hours is vital in the improvement of asthmatic healthcare during school hours. The study recommends more communication between the parents and school staff to ensure that quality care is being initiated with an asthmatic child. Parents should be

informed when a child is experiencing an asthma flare-up, and the necessary protocols should occur during an asthma flare-up or an emergency.

I would like to provide consulting services that will offer a valuable approach to addressing social determinants of health (SDOH) by providing tailored asthma education. I propose implementing consulting services that specifically target and mitigate barriers associated with SDOH, such as inadequate housing quality, limited access to healthcare, and disparities in education. By leveraging case studies and existing research, these services can demonstrate their effectiveness in overcoming similar challenges and improving asthma management outcomes.

Implications

This study addresses the need for improved asthma education programs within public schools, focusing on the potential for positive social change through policy awareness, adaptation, and barrier reduction. The initiative explores the roles of state legislation, policy hurdles, and successful policy implementation within the public school system, which directly impact health service equity during school hours. Every student deserves access to quality health services, especially those with chronic conditions like asthma. Addressing asthma management in schools requires the collaboration and expertise of health and education professionals to sustain effective asthma resources for students, teachers, administrators, and caregivers.

One goal of this research was to examine how current policies can be refined to address the Social Determinants of Health (SDoH) influencing asthma outcomes. This proposal highlights the importance of providing equitable access to health services within

the community and public-school systems, particularly focusing on the disparities in health outcomes for asthmatic students. In doing so, this research seeks to bring together stakeholders to evaluate current school policies, identify areas for improvement, and support funding resources to bolster health services for students.

The study overview and methodology examined a subset of K-5 educators, administrators, and parents to gain insights into asthma education practices in the public school system. The semi structured interviews with five participants provided valuable firsthand perspectives on the current state of asthma education and highlighted existing challenges and potential solutions. Using a narrative inquiry approach, this qualitative study focused on themes related to legislative insights, barriers, and successes in asthma policy. By capturing participants' personal experiences, the research uncovered critical issues and opportunities for policy adjustments to better support asthma management in schools.

NPF was instrumental in analyzing this study's data, helping to identify key elements in asthma education policy. The NPF approach allowed the study to examine stories that follow a natural progression, beginning with an introduction, moving through a development phase, and concluding with an ending. They are built around characters and guided by a plot that situates these characters within a specific time and place. Events unfold as the characters interact with one another and with their surroundings, creating dynamics that make the story engaging and meaningful. The asthma education research study provided key elements into asthma education programs that identify the roles and

responsibilities of the lived experiences through knowledge from individuals in public schools.

Through this model, the setting, characters, plot, and moral of the stories told by participants became evident. The setting was the public-school environment where teachers, students, and health professionals interact daily. The characters included teachers, parents, students, and administrators, who each play a vital role in asthma management. The plot involved the timeline of asthma-related events or concerns in schools. Finally, the moral included proposed policy solutions based on narrative findings and themes from data analysis. These elements provided a structured way to analyze participant narratives and identify policy implications that address asthma education gaps. Key findings and recommendations emerged from the study, each with practical recommendations to improve asthma management. These include the need for enhanced collaboration, communication, training, and parental engagement.

Enhanced Collaboration: Increase collaboration between teachers and school nurses to create a coordinated asthma management plan. Protocol development would consist of established clear, effective asthma protocols that guide educators and health staff in managing asthma symptoms and emergencies.

Communication: Improve communication channels between teachers, parents, and students to ensure everyone understands and follows the asthma action plan during and after school hours.

Training Modules: Provide accessible training modules for educators on asthma management, with incentives such as continuing education credits.

Parental Engagement: Encourage more robust parent involvement to build strong relationships with educators and foster better asthma outcomes for children.

Social change implications in this research hold the potential to address health disparities in public school asthma care. By increasing awareness of health service inequities and advocating for policy improvements, this initiative aims to influence stakeholders to examine and fund resources that ensure quality health services for all students. The study's inclusion within the Social Determinants of Health (SDoH) underscores the importance of equitable access and community engagement to enhance asthma outcomes and support health equity for students in public schools.

Conclusion

These results call for a collaborative effort to support policy changes in asthma education that promote equitable health services in public schools. By fostering stronger connections among educators, health professionals, parents, and policymakers, a school environment can be created where every child with asthma receives the care and support needed to thrive academically and physically.

Public school systems aim to provide a high quality of education for the students to esteem to be the best individual they can be, even at the youngest age. When their day is impacted by a health issue, and they cannot breathe, this causes issues that may become the major focus of their day. Health services can provide a child with peace of mind knowing that they will provide the best quality care at school. This study allowed the findings and interpretation of the data to provide relatable codes and themes that are

essential to ensure health quality and equity are accessible to all students in the public schools through recommended improvements.

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Volunteers Needed for Research Study on Asthma Education Policy Program

What are the barriers to comprehensive asthma education program for school staff and administrators? There is often a lack in communication with families, clinician, and school staff/nurses: This results in students not having access to asthma medications, including rescue medications, in school. Students continue to be exposed to asthma triggers at school. How can we improve asthma education programs

You May Qualify If You

- Are between 18 and 75 years old.
- School Staff/Administrator/Educator (K-5) teaching in the NC Public Schools
- Nurses in the NC Public Schools
- Parents with asthmatic children in (K-5) attends NC Public Schools

Potential Benefits

Participating in this study may improve asthma knowledge and other outcomes.

Participation Involves

- Virtual Open-ended Interviews
- Face to Face Open-ended interviews
- The overall results will be shared upon request with individual respondents.

Location: Walden University Online Study Contact: [REDACTED]

Telephone Number: [REDACTED]

Participants will be compensated with a \$5.00 Starbucks Gift Card.

Appendix B: Recruitment Letter

Re: A Narrative Policy Review of Asthma Education Programs in a Public-School
Systems

Dear: Selection Participant

I am writing to let you know about an opportunity to participate in a voluntary research study about asthma education policies. This study is being conducted by Rosemary Moody at Walden University

The purpose of this study is to examine asthma education policy recommendations in elementary schools as it relates to childhood asthma and the impacts for (K-5) children during school hours. The study will explore criteria to create an asthma education policy for teachers, paraprofessionals, administrators, and school nurses. The decision-making strategies to implement an asthma education requirement program, and determine the school system knowledge, barriers, success, challenges, and familiarity with state legislations in funding an asthma education programs will be the focus for this study.

Participation includes informed consent to volunteer in the interview sessions about asthma education programs at the (K-5) grade level. The interviews will be conducted through video conference platforms such as Microsoft Teams or Zoom. There is a \$5.00 Starbuck's Gift Card compensation for participating in the research study. The benefits from this study will increase knowledge and awareness about asthma education policies in the public school system.

Study participation requirements are listed below:

- Are you between 18 and 75 years old?
- Are you a School Staff/Administrator/Educator (K-5) teaching in the NC Public Schools?
- Are you a Nurses in the NC Public Schools
- Are you a Parent with asthmatic children in (K-5) attends NC Public Schools?

Please contact me at ([REDACTED]) If you would like additional information about this study.

Thank you for your consideration, and once again, please do not hesitate to contact me if you are interested in learning more about this Institutional Review Board-approved project.

Rosemary Moody
Principal Investigator
Walden University

Appendix C: Audio/Video Interview Protocol Qualitative Research Audio/Video

Interview Protocol for Asthma Education

Time of Interview:

Date of Interview:

Consent to AUDIO or VIDEO Recording & Transcription

*(Respondent A1)**(Rosemary Moody & Walden University)*

This study involves the audio or video recording through (Zoom or Microsoft teams) of your interview with the researcher. Neither your name nor any other identifying information will be associated with the audio or audio recording or the transcript. Only the research team will be able to listen (view) to the recordings.

The recordings will be transcribed by the researcher and erased once the transcriptions are checked for accuracy. Transcripts of your interview may be reproduced in whole or in part for use in presentations or written products that result from this study. Neither your name nor any other identifying information (such as your voice or picture) will be used in presentations or in written products resulting from the study.

By signing this form, I am allowing the researcher to audio or video tape me as part of this research. I also understand that this consent for recording is effective until the following date: _____. On or before that date, the tapes will be destroyed.

Participant's Signature: _____ Date: _____

Source:

<https://www.kean.edu/media/sample-audiovideo-recording-consent-form>

Appendix D: Qualitative Research Interview Protocol Outline for Asthma Education

Programs

Stakeholder Interview Questions

Three Overarching Interview Questions

- I. Are you familiar with the policies as it relates to state laws in asthma education programs?
- II. What are the barriers to asthma related protocol(s) in your school?
- III. What is the success to asthma related protocol(s) in your school?

I. Are you familiar with the policies as they relate to state laws in asthma education programs?

1. How familiar are you with the state laws and policies that govern asthma education programs in your jurisdiction?
3. Are there any specific requirements or guidelines outlined in the state laws regarding curriculum, training, or resources for teachers, school staff, and administrators in asthma education training?
3. How does your school ensure compliance with the state laws and policies related to asthma education programs?

II. What are the barriers to asthma related protocol(s) in your school?

1. What specific protocols or guidelines are in place at your school for managing asthma-related issues?
2. How well do you believe these asthma-related protocols are communicated and understood among the staff, including teachers, administrators, and support personnel?
3. Are there any specific barriers or obstacles that prevent the effective implementation of the asthma-related protocols in your school?

III. What is success to asthma related protocol(s) in your school?

1. How would you define or measure the success of the asthma-related protocols in your school?
2. Can you provide examples of specific positive outcomes or achievements that can be attributed to the implementation of asthma-related protocols?
3. Have there been any notable improvements in the overall health and well-being of students with asthma since the implementation of the asthma-related protocols?

Appendix E: Tables and Figures

Table E2*Frequency of Participants Responses in Number of Snippets of the Themes*

Order of Code in List	Code Name	Participant A01	Participant A02	Participant A03	Participant A04	Participant A05
Theme	Parent Involvement					
Sub-code	teachers	4			12	2
Sub-code	school	17	5	8	25	9
Sub-code	asthma	11	5	4	3	5
Sub-code	education	9	1	2	7	2
Theme	Communication Gaps					
Sub-code	expectations	1			7	1
Sub-code	student responsibility	13			18	8
Theme	Training and Awareness					
Sub-code	training	6	1	5	15	2
Theme	Effectiveness and Protocols					
Sub-code	impediments		1	1	4	
Sub-code	barriers	5		3	4	
Sub-code	policy	9	2	7	9	4
Sub-code	achievement		2	1	6	
Sub-code	success	1	2	3	11	4
Sub-code	state legislation	4	1	3	1	1
Sub-code	time	1		1	2	
Theme	Collaboration Between Nurses and Staff					
Sub-code	communication	9	6	7	24	3
Sub-code	asthma plans	4			4	1
Sub-code	nurse	12	12	9	16	4
Sub-code	medication	10			7	3
Sub-code	physical activity	1			8	3

Note: Snippet frequencies = to the number of participants' responses that are connected to themes.

Table E3

Frequency Distribution: Asthma Education Policy Program with Thematical and Sub-Category Codes

Thematic Codes	Frequency	Relative Frequency
Parent Involvement	131	0.295045045
Communication Gaps	48	0.108108108
Training and Awareness	29	0.065315315
Effectiveness and Protocols	93	0.209459459
Collaboration Between Nurse and Staff	143	0.322072072
Total	444	1

Figure E1

Parent Involvement

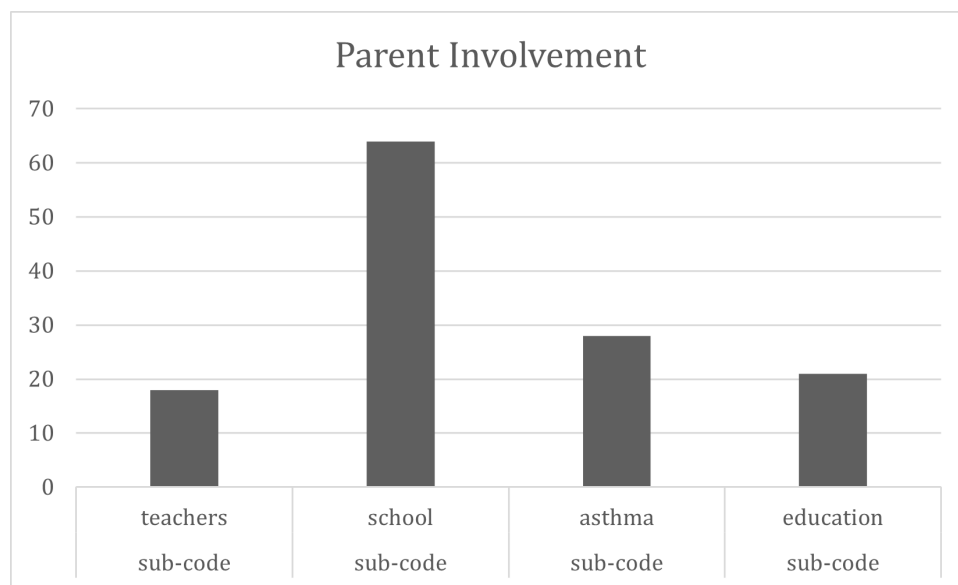


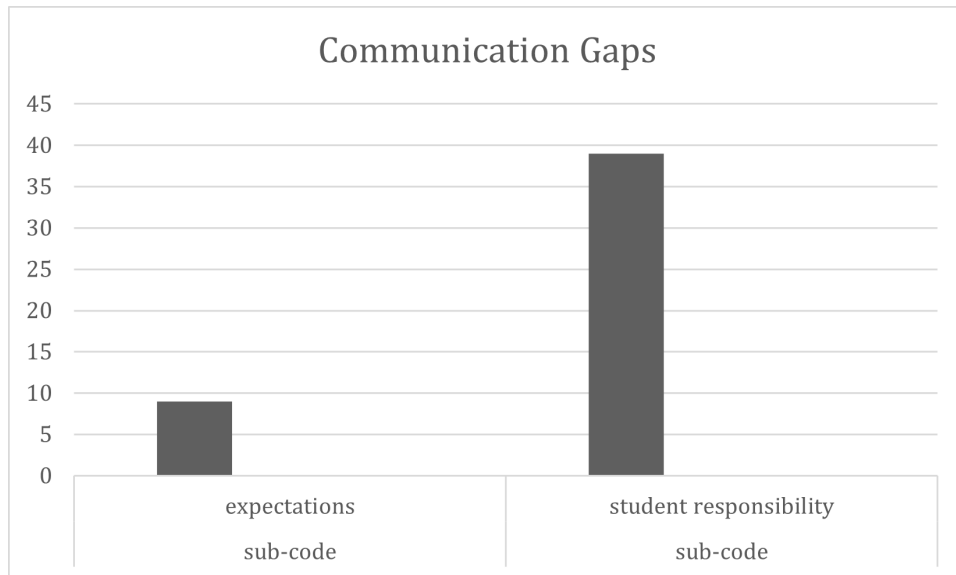
Figure E2*Communication Gaps***Figure E3***Training and Awareness*

Figure E4

Effectiveness and Protocols

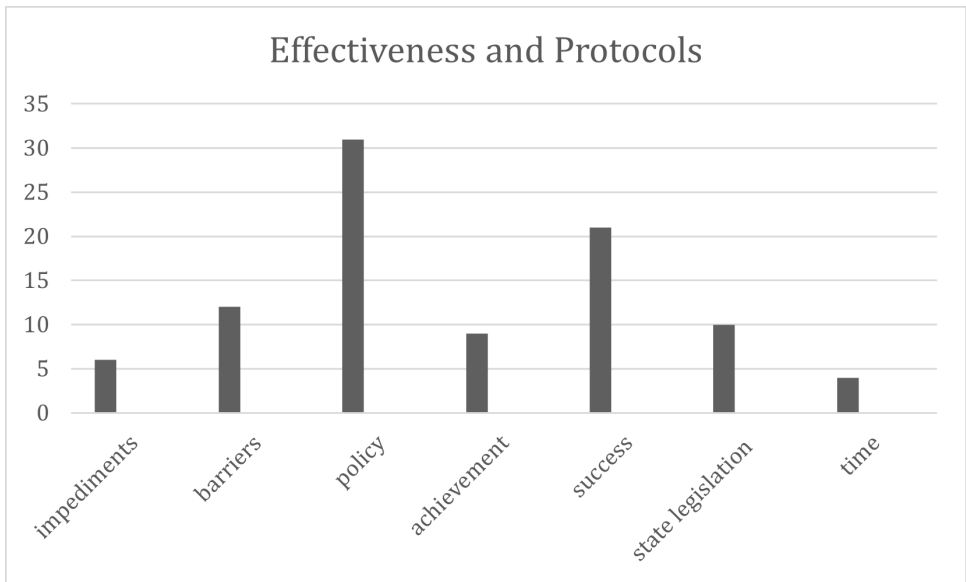


Figure E5

Collaboration Between Nurses and Staff

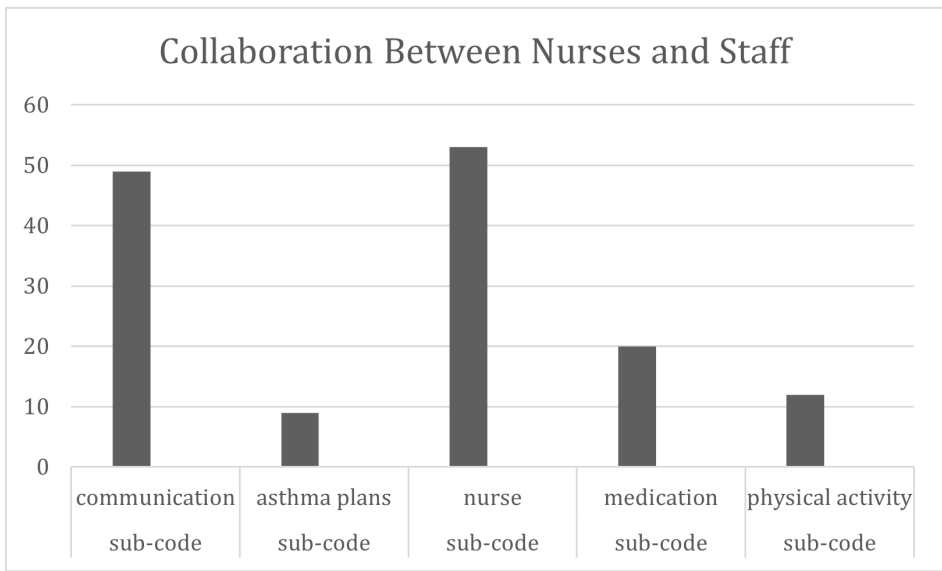
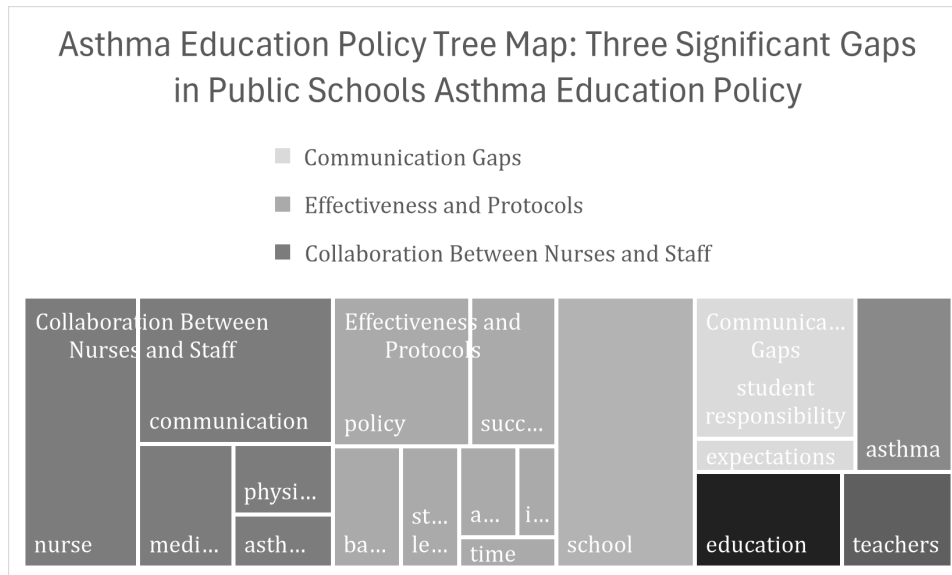


Table E4*Frequency Snippets for Themes and Sub-Codes*

Order of Code in List	Code Name	Number of Snippets
Theme	Parent Involvement	
sub-code	teachers	18
sub-code	school	64
sub-code	asthma	28
sub-code	education	21
Total	Sub-code Total	131
Theme	Communication Gaps	
sub-code	expectations	9
sub-code	student responsibility	39
Total	Sub-code Total	48
Theme	Training and Awareness	
sub-code	training	29
Total	Sub-code Total	29
Theme	Effectiveness and Protocols	
sub-code	impediments	6
sub-code	barriers	12
sub-code	policy	31
sub-code	achievement	9
sub-code	success	21
sub-code	state legislation	10
sub-code	time	4
Total	Sub-code Total	93
Theme	Collaboration Between Nurses and Staff	
sub-code	communication	49
sub-code	asthma plans	9
sub-code	nurse	53
sub-code	medication	20
sub-code	physical activity	12
	Sub-code Total	143
	Total	444

Figure E6

Asthma Education Policy Caps from the Research Study



Appendix F: Participant Interview Questions

The following interview questions were asked of each participant in the study.

The interview questions stemmed from overarching questions that were pertinent to the study.

I. Are you familiar with the policies as they relate to state laws in asthma education programs?

1. How familiar are you with the state laws and policies that govern asthma education programs in your jurisdiction?
2. Are there any specific requirements or guidelines outlined in the state laws regarding curriculum, training, or resources for teachers, school staff, and administrators in asthma education training?
3. How does your school ensure compliance with the state laws and policies related to asthma education programs?

II. What are the barriers to asthma related protocol(s) in your school?

1. What specific protocols or guidelines are in place at your school for managing asthma-related issues?
2. How well do you believe these asthma-related protocols are communicated and understood among the staff, including teachers, administrators, and support personnel?
3. Are there any specific barriers or obstacles that prevent the effective implementation of the asthma-related protocols in your school?

III. What is success with asthma related protocol(s) in your school?

1. How would you define or measure the success of the asthma-related protocols in your school?
2. Can you provide examples of specific positive outcomes or achievements that can be attributed to the implementation of asthma-related protocols?
3. Have there been any notable improvements in the overall health and well-being of students with asthma since the implementation of the asthma-related protocols?