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College of Health Sciences and Public Policy

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Abstract

Access to Primary Care Physicians Care Services Among African American Children

With Asthma in Urban Areas

by

Renford Whynes

Dissertation Submitted in Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Philosophy

Health Science

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## Abstract

Access to appropriate asthma care may be challenging for low-income African American parents. Parents' and caregivers' perceptions regarding access to primary care services for asthma treatment for their children was explored using a qualitative design. The Anderson behavioral model was the conceptual framework that guided the study. This model helps understand patients' use of health services. The research questions asked about primary care for asthma treatment; barriers to treatment; and possible facilitators to seeking appropriate care for children with asthma. A general qualitative design was applied with thematic analysis used to determine findings. Ten parents and guardians participated in a one-on-one interview via Zoom. Seven themes and subthemes were discovered. The themes included, for example, (a) Symptoms of Serious Illness in Child Encouraged Parents to Use Primary Care Service and (b) Difficulty in Finding Easily Accessible and Reliable Medical Facility or Pediatrician was a Barrier. NVivo software helped with data analysis to sort codes and categories to developed overarching themes. The results indicated that more specialists, particularly African American doctors, are needed to diagnose children rather than using general pediatricians. Health disparities and cultural competence were also noted in the result. Positive social change may be found in recognizing the need for African American children to have access to appropriate diagnosis and treatment for asthma within primary care clinics that include physicians that are also African American.

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## Dedication

This dissertation is sincerely dedicated to my lovely, supportive wife and children, who encouraged and supported me in conducting this study. They have never left my side throughout the process and gave me strength and hope when I thought of giving up. They provided me with a great sense of enthusiasm and perseverance in continuing this project. This research would not have been possible without their love and assistance.

Moreover, I dedicated this research paper to my primary chair, Dr. Cheryl Anderson, who constantly guided me to improve this study, and to my friends, who cheered me on and helped me finish this journey. I appreciate your advice and continuous moral, spiritual, and emotional support.

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## Chapter 1: Introduction to the Study

In the United States, asthma impacts 6.2 million children (*Asthma in Children* | AAFA.org, 2023). Asthma involves the tightening of the airways in response to triggers, which leads to wheezing, difficulty breathing, and death if untreated (Guilbert et al., 2019). Lack of primary care access and use results in increased school absenteeism, decreased school grades, increased hospital admission, and, more rarely, death (Balasubramaniam et al., 2018; C. E. Brown et al., 2018; Canedo et al., 2018; Inagaki et al., 2018).

Current structural inequalities and disparities in the United States lead to an increased risk of asthma symptoms among African American children (Akinbami et al., 2016; Childs et al., 2017; Holder-Niles et al., 2017; Sadreameli et al., 2018). Researchers illustrate that the current healthcare system in the United States serves to disservice people of color, which can lead to increased mortality and morbidity risks (Wasserman et al., 2019). Further, socio-economic status and demographic variables (e.g., rural versus urban location) can further increase the risk of health disparities for ethnic minorities (Balasubramaniam et al., 2018; C. E. Brown et al., 2018; Canedo et al., 2018; Inagaki et al., 2018).

National data indicate that poverty is distributed unequally across the United States and often disproportionately impacts minorizes in urban and rural regions (Brown et al., 2017; Healthy People, 2020). Previous literature has focused on structural inequalities on a national level; however, considerations of healthcare access and primary care use for African American children in urban areas with asthma are absent in academic literature.

Some research illustrates that asthma education is lacking, and pediatric consultation is decreased for African American children with asthma (Stingone & Claudio, 2006; Szeffler et al., 2019). Research regarding parental and caregiver perspectives is absent in the academic literature. Parental and caregiver perspectives are critical, as these views may provide insights regarding barriers and facilitators for primary care access and use for African American children (e.g., under the age of 18) with asthma.

The remaining sections of Chapter 1 include the background literature on this topic and an overview of the selected conceptual framework. Next, the research questions and purpose of the study are discussed. The scope and limitations regarding the nature of the study and the data collection and analysis procedures are then presented.

### **Background**

For children with an asthma diagnosis, access to primary care physicians (PCPs) is essential because a lack of access has been shown to correlate with a higher risk of uncontrolled asthma and hospitalization compared to children with access (Chamberlain et al., 2016; Utidjian et al., 2017; Welkom et al., 2015). National data from the Asthma and Allergy Foundation of America (2020) and the Center for Disease Control and Prevention (Ebell et al., 2019) illustrated that low-income and minority children in urban areas are disproportionately affected by asthma (Akinbami et al., 2016; Childs et al., 2017; Holder-Niles et al., 2017; Sadreameli et al., 2018). According to Ebell et al. (2019), African American children are more likely to be hospitalized due to asthmatic symptoms and are more than three times as likely to die due to asthma than other ethnic groups.

Significant disparities exist in medical health care access for low-income minority families due to inadequate access, lack of insurance coverage, or unaffordable costs (Bui et al., 2017; Holder-Niles et al., 2017; Leininger & Levy, 2015; Welkom et al., 2015). African American access to healthcare services and physicians is decreased, which is impacting the ability for children to receive proper asthma care (Voleran et al., 2017). Structural issues in insurances, lack of nebulizers prescribed to African American children, and unaffordable costs contribute to the access and use of care for African American children with asthma. Socioeconomic status and residency in urban areas increases the risk for lacking healthcare access, inability to afford medical costs, and risk of hospitalization due to poor primary care physician access (Davis et al., 2018; Inagaki et al., 2018). African American communities in low socioeconomic urban areas are at an increased risk for poor pediatric care (Kim & Pirritano, 2019), increased admission and re-admission rates due to lack of asthma education (Young & Berry, 2017), and lack of access to a PCP (Villatoro et al., 2018).

Poor asthma trends for ethnic groups are also noted in specific geographical regions due to larger clustering of urban and rural low socio-economic status. In Miami, Beck et al. (2016) explored demographic data, asthmatic reporting, and Youth Risk Behavior Surveillance System, emergency, and hospitalization data to assess ethnic variation and socioeconomic standing of children with asthma. Beck et al. reported that African Americans in zip codes with poor housing, low income, and low education demographics were 7.3 times more likely to have repeat emergency room visits for asthma than other ethnicities or White groups. Researchers have reported the same

findings for urban areas of Houston Texas with poor air quality and an increased risk for asthma among African Americans (Bose & Diette, 2016; Kranjac et al., 2017; Raun et al., 2019). Pediatric asthma is more common in U.S. port cities, such as California (Sutherland, 2018). Resultantly, racial status as African American, socioeconomic status, and living in areas with poor air quality are increased risk factors for continued asthma conditions.

Researchers have examined asthma, healthcare disparities, and African American access and use of primary physical care. Welkom et al. (2015) studied the association between depression and the use of PCP services among caregivers of children with asthma. Similarly, Sadreameli et al. (2018) hypothesized that preschool children with asthma are less likely to visit a primary care provider than children without asthma. Also, Sadreameli et al. found that children with asthma were less likely to visit an asthma subspecialist if their caregivers reported more barriers to care and would, therefore, be more likely to have had a recent visit to the emergency department (ED) related to asthma. Bellin et al. (2017) sought to understand the caregiver experience regarding asthma management in the context of poverty, as there is a lack of evidence regarding the caregiving experience among low-income caregivers of children with high-risk asthma. However, in these assessments, the understanding of parental perceptions and caregivers is lacking. Yet, the literature illustrates that disparities exist regarding the use of PCP services and access to care.

Researchers also illustrate that barriers to care and access exist in some communities and populations. For example, Holder-Niles et al. (2017) assessed the



impact of coordinated team-based asthma care on unplanned health care utilization related to asthma. Further, the authors evaluated a quality improvement initiative to reduce unscheduled urgent care visits, ED visits, and hospitalization for patients as related to asthma complications. However, Volerman et al. (2017) also noted that similar barriers and opportunities for change are evident in school settings. Volerman et al. assessed parental perceptions regarding school interventions in urban regions and reported barriers regarding poor communication and lack of school-based resources for children with asthma.

Multiple barriers are noted regarding asthma care and patient access for African American communities. Harris et al. (2019) reviewed medical data and records and found that one barrier to care in African American communities is a historical and contemporary distrust of health care providers. Harris et al. argued for collaborative initiatives to provide culturally competent care. Localio et al. (2019) interviewed physicians to assess their perceptions regarding youth asthma barriers to treatment. The authors noted that in urban regions, barriers included patient communication, poor patient trust, lack of culturally competent care, and inability for some patients to afford medical costs (Localio et al., 2019). Szeffler et al. (2019) noted that asthmatic disparities in urban regions lead to increased school absenteeism and higher attrition rates. Barriers to asthma control included a lack of child education and lowered nebulizer prescription for minority students.

Researchers additionally have noted the need to include stakeholders, such as parents and caregivers, in the process of intervention and policy adaption for African

American children with asthma. For example, Shelef et al. (2016) argued for a need to increase stakeholder perceptions in academic research to illustrate the ideal framework for asthma interventions and policy adaptations. Kramer et al. (2016) explored the effectiveness of intervention strategies for Latino and African American children with asthma. The author reported that ideal interventions include the inclusion of parental perceptions regarding inequalities and barriers in medical healthcare access and treatment of asthma. Evans-Agnew (2016) conducted a panel of young African American adolescents regarding the issues that they and their community faced in asthma care, which was presented to local policymakers. Reported issues included lack of opportunities, poor nutrition, and poor mobility plans at school and in residential areas. The considerations of the group were not included in interventions at the local level, which Evans-Agnew noted represents the lack of incorporation and consideration of community stakeholders regarding the issue of asthma.

In sum, there is a gap in the literature regarding asthma in African American children in urban areas. Research specific towards African American children of low socioeconomic status in urban areas is understudied. In particular, the perceptions of parents and caregivers regarding the access and use of primary health care services are also absent from academic literature. As such, there was a critical need to address this gap.

### **Problem Statement**

The specific problem to be explored in this study was parents' and caregivers' perceptions regarding access to primary care services among African American children

from low socioeconomic status families (Childs et al., 2017; Oldfield, 2019; Utidjian et al., 2017). Due to the importance of primary care for improving outcomes for children with asthma, additional research was needed regarding primary care access (e.g., availability, initial visits, and follow-up for African American children). Also, the difficulties of life turning for better or worse impacted low socioeconomic status families in urban areas from the parent/guardian perspective (Bellin et al., 2017; Harper et al., 2015; Trivedi et al., 2018).

Literature illustrates evidence regarding lack of access to primary care services for African American children with asthma in urban areas (AAFA, 2020; Ebell et al., 2019; Volerman et al., 2017). Researchers have suggested that inclusion of parents and primary stakeholder perceptions is critical for assessing future intervention models (Kramer et al., 2016; McQuaid, 2018). Explorations regarding parents' and caregivers' knowledge of surrounding access to PCPs was absent in the academic literature. Understanding the dynamics of PCP access is vital to increasing stakeholder (e.g., parental) involvement and providing evidence for future research and policy implementation. Access to preventative care and counseling provided by a PCP is associated with improved outcomes for children with asthma. PCPs play an important role in improving outcomes of asthma control by providing effective preventative care and counseling (Szeffler et al., 2019; Utidjian et al., 2017; Larsson et al., 2020).

### **Purpose**

The purpose of the study was to explore the perceptions of African American parents and guardians of children with asthma and their views on access to primary care.

This study explored the role of these factors in the health service use of parents as related to the care and treatment of their child's asthma. Semi-structured interviews with the parent(s) and guardian(s) of the children with asthma living in inner-city urban areas were conducted in this study.

### **Theoretical Framework**

Andersen's (1995) behavioral model for health service use was the framework used for this study. Anderson's behavioral model for health was developed by Ronald M. Anderson in 1968. The development of the model was partially in response to a lack of theoretical frameworks for exploring equitable care and assessing disparities in socioeconomic and ethnicity status (Andersen, 1995). Andersen's behavioral model for health services utilization serves as a useful model for understanding patients' use of health services, predisposing characteristics, factors that encourage or act as a barrier to health service use, the need for health services, and the ultimate decision to utilize health services (Andersen, 1995; Kaya et al., 2019; Welkom et al., 2015).

Contemporary research includes assessments of rural and urban disparities in health care through the exploration of socioeconomic and ethnicity status models that can be improved to ensure that mortality and death rates are reduced (L. Anderson et al., 2017; Clark et al., 1999; Selwyn et al., 2019). More recent assessments include exploring barriers to cancer screening (Ogunsanya et al., 2016), mobile health applications as facilitators of health care (Bhuyan et al., 2016), and minority access to health care based on sexuality and ethnicity (Shangani et al., 2020). Andersen's (1995) behavioral model for health service use is an effective approach for exploring access and use of healthcare

services while also considering external factors that impact or serve as a facilitator for primary care use.

The predisposing factors of Andersen's (1995) healthcare utilization model include demographic characteristics such as race, age, and perceived health benefits. In this study, the factor of age was explored among African American children. Concepts explored included health care services and challenges among asthmatic children living in urban areas. The approach provided an understanding of the factors influencing the use of health services by families. The model is also designed to help define and measure equitable access to health care services and to help promote policies to improve equal access (Andersen, 1995).

### **Research Questions**

The following research questions guided this study.

RQ1: How do parents and guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?

RQ2: How do parents and guardians of African American children with asthma living in urban areas described the factors that act as a barrier to primary case service use in the management of childhood asthma?

RQ3: How do parents and guardians of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma?

### **Nature of the Study**

The nature of the study was a general qualitative study. The research methodology included a qualitative approach and thematic one-on one interviews. A qualitative design was useful for observing a phenomenon through observational or interview-based methods. A quantitative model would have involved statistical assessments of testable answers (Tracy, 2019), which was not ideal for this study. As the perspectives of parents and caregivers were desired based on the noted gap and need for stakeholder involvement, a qualitative approach was chosen. In line with the qualitative approach, a phenomenological design was ideal, as it allowed for exploring the parental and caregiver reports through an exploration of lived experiences. For this process, a sample size of 15 participants was desired; however, per the recommendation of Saunders et al. (2018), more interviews (e.g., data) would be conducted if new information (e.g., sample saturation) was found after 15 interviews. Data analysis was completed using Braun and Clark's (2006) six-step thematic analysis, which is discussed in detail in Chapter 3.

### **Possible Types and Sources of Data**

The data for this study were obtained through semi-structured interviews with 10 to 12 parent(s) and guardians of African American children (under the age of 18) with asthma at one or two faith-based churches within a county in an urban area on the east coast. Interviews were conducted with the parent(s) and guardians to avoid potential ethical issues related to interviewing minors. Recruitment of potential participants occurred through flyers distributed on the local church bulletin board in the area.

Participants contacted me voluntarily and were provided information regarding the purpose of the study, the IRB approval information, and the requirements of the study participants. Incentives or monetary gifts were not offered to participants in the study.

Interviews were voluntary and involved a thorough consent process, particularly given that this study included questions about access and use of primary care services. Each interview lasted between 30 and 60 minutes and was audio-recorded. After each interview, I transcribed the final interviews for data thematic data analysis.

### **Definitions**

In this section, the definitions specific to this study are presented with appropriate citations. Next, the assumptions, scope, delimitations, and limitations are presented before summarizing the critical points of this study.

*Asthma:* Asthma is a respiratory condition that is triggered by inflammation of the airways leading from the nose to the throat. Asthma can result in difficulty breathing or death if the airways are not alleviated through a nebulizer or asthma treatment (AAFSA, 2020).

*Health care interventions:* Health care interventions are policies or treatment methodologies that are designed to decrease the negative outcomes associated with a medical condition, such as asthma. Medical interventions are also critical as they are often based upon research and medical findings regarding populations and scientific assessments regarding medical knowledge (Clarke et al., 2019).

*Primary care physician:* A primary care physician (PCP) is the primary doctor that oversees the medical needs of a family, single individual, or child. A PCP will refer patients with severe conditions to specialists if needed (Baker et al., 2020).

*Primary health care access:* Primary care access is the process of using and accessing a PCP during normal medical needs (e.g., nonemergencies). Primary health care access also means access and use of follow-up visits and medicine consultation after emergency room or hospitalization events (Healthy People, 2020).

### **Assumptions**

The first assumption underlying this study was that the participants would truthfully answer the questions provided to them during the interviews. It is not possible to guarantee this assumption. For this assumption, all efforts were made to ensure that participants were comfortable and aware of their voluntary and confidential involvement in the study. The participants were provided with an overview of the study prior to volunteering and were briefly assessed to ensure that they met the inclusion criteria, which are discussed in Chapter 3.

The next assumption was that the information gained from the interviews was appropriate and served in answering the research question and purpose of the study. For this limitation, all efforts were made to ensure that the questions were aligned with the research question and the purpose of the study. This included developing an interview guide, reviewing the interview guide with professional colleagues, and providing follow-up questions during the interviews.



### **Scope and Delimitations**

The scope of this study was African American parents and caregivers of children (under the age of 18) with asthma in urban regions. The designated scope of this study was necessary to meet the literature gap regarding parental and caregiver perceptions. The scope also allowed for addressing the noted academic need for increased stakeholder perceptions regarding the access and use of primary healthcare services for minority populations in low socioeconomic regions (Bellin et al., 2017; Harper et al., 2015; Trivedi et al., 2018).

The delimitations of the study included a specific geographic region that was in an urban area. This delimitation was necessary to ensure that the target population was in a region that is typically associated with low socioeconomic groups. The population was delimited to parents and caregivers of African American children with asthma. This limitation was necessary to avoid any ethical noncompliance with interviewing minor participants. The delimitation addressed the literature gap that failed to consider parental and caregiver perceptions regarding access and use of primary health care services for African American children with asthma.

### **Limitations**

The first potential limitation to this research was the possibility that an insufficient number of participants would volunteer for this study. If this were to happen, I was prepared to reach out to healthcare providers, community centers, and social workers to assess an improved recruitment model. However, this may have served to create a time-delay in the finalization of this dissertation. The next limitation to this study

was researcher bias, which I attempted to mitigate using bracketing. Bracketing is the process of recording personal bias throughout data collection and analysis in a field journal. The reflexive process of bracketing is one model that researchers consider ideal for attempting to mitigate personal bias from interfering with the study findings (Tracy, 2019). The final limitation was that the information garnered from the participants may not address the research questions and the purpose of the study. To mitigate this limitation, I developed an interview guide that aligned the provided questions with the research questions and the purpose of the study. The use of this model as well as specific exclusion and inclusion criteria for participants ensured that the information garnered was useful to the purpose of the study.

### **Significance**

This study explored the factors related to primary health care service use related to asthma care, including factors that serve as barriers or facilitators for health service use, the need for health services, and use of health services. The purpose of the study was to explore access and use of primary health care services among African American children with asthma that were from low socioeconomic status families living in urban areas. The aim of this study was to contribute to evidence regarding facilitators and barriers pertaining to primary care access for minorities of low socioeconomic status.

Previous research has focused on examining national disparities (Voleran et al., 2019). Research regarding stakeholder perceptions (e.g., parents and caregivers) is lacking from academic research. The findings of this study fill a noted gap in the literature but also provide information that may be useful for future research,

policymakers, and intervention development. The findings of this study increase the understanding regarding the access and utilization of primary care services from the perspective of parents and guardians. The study is significant in that the findings of this study may be used to inform policies and interventions to improve access and utilization of primary care services to improve health outcomes for African American children with asthma.

### **Summary**

In this chapter, the introduction, purpose of the study, research questions, and significance of the study were presented. As noted, the purpose of the study was to explore access and use of primary health care services among African American children with asthma that were from low socioeconomic status families living in urban areas. For this purpose, I interviewed 15 parent(s) and guardians of African American children (under the age of 18) with asthma in urban areas. The resultant data were analyzed using Braun and Clarke's (2006) six-step thematic analysis method. The findings of this study contribute to intervention assessments and policy considerations for improving the access and use of primary care services for African American children in urban regions of the United States. In Chapter 2, I present the current literature that reflects the key variables of this study.

## Chapter 2: Literature Review

In the United States, asthma is an issue that affects 6.2 million children (Guilbert et al., 2019). Minority children in urban areas disproportionately face challenges in receiving proper asthma treatment (Akinbami et al., 2016; Childs et al., 2017; Holder-Niles et al., 2017; Sadreameli et al., 2018). The access to PCPs is critical for ensuring that asthma is treated properly, and hospitalization risk is reduced (Chamberlain et al., 2016; Utidjian et al., 2017; Welkom et al., 2015).

Minority children face higher hospitalization risk due to disparities in access, poor insurance coverage, and prescription and co-pay costs that are unaffordable (Bui et al., 2017; Welkom et al., 2015). The literature reviewed throughout this section illustrates disparities as well as the current issue in unequal treatment, access, and outcomes for African American children in the United States. The research discussed illustrates a lack of parental perceptions and consideration despite the recommended need for including key stakeholders affected by the asthmatic disparities (Curtis et al., 2012; Philips et al., 2020; Ruffner et al., 2018; Wolf et al., 2004).

The purpose of this study was to understand access to primary health care services among African American children with asthma that were from low socioeconomic status families living in urban areas. In this chapter, relevant literature regarding this purpose is explored. Existent gaps in the literature are also emphasized to illustrate the significance of this study. A discussion of the conceptual framework used to guide this study is also discussed in detail.

### **Search Strategy**

In this section, the search strategy used to obtain relevant literature is presented. First, I searched appropriate databases, including Academic Search Complete, EBSCO HOST Database, pub med, Web of Science, Education Resource Information Center (ERIC), and Sage Journals. Google Scholar was also used as a means of locating direct access articles for the purpose of conducting this literature review. I located relevant literature in these databases through the following search key terms: *African American children with asthma, African American asthma inequalities, African American health inequalities, health care services and African American children, African American access to healthcare services in the United States, and inequalities in healthcare for African American families*. The literature search revealed a sum of 75 articles published from 2016-2020. Articles published prior to 2015 were only used for foundational information relating to the conceptual framework.

### **Chapter Organization**

In this chapter, relevant literature is presented in the following seven categories: (a) conceptual framework, (b) healthcare disparities in the United States, (c) African American healthcare access, (d) socioeconomic status and healthcare access for African Americans, (e) asthma in Children in the United States, (f) disparities in asthma care for African American children, and (g) summary and conclusion. The organization of the literature is designed to draw from broad topics concerning healthcare frameworks towards the specific concern of this study, which is access and use of primary healthcare

services among African American children with asthma in urban low socioeconomic status families.

### **Conceptual Framework**

Andersen's (1995) behavioral model for service use was the conceptual framework of this study. The theory is directly connected to the use of assessing patient use of health services but also serves as a framework for exploring factors and structural elements that serve as barriers to providing equitable service (Anderson, 1995). As noted in Chapter 1, these factors include (a) race, (b) age, and (c) perceived health benefits (Anderson, 1995). In this section, an overview of this framework is provided.

The model was first developed by Ronald M. Anderson, who served as a health service professor at UCLA in 1968. During this period, assessment regarding disparities in healthcare by socioeconomic status and ethnicity was limited. Anderson (1995) expanded his professional knowledge to provide a framework that could explore health services through the assessment of predisposing factors, enabling factors, and need. First in the model is accessibility. Ideally equitable access is provided; however, demographic characteristics (e.g., age, race, and socioeconomic status) may serve to impede healthcare service. Travers et al. (2020) used the Anderson expanded model to understand the relevancy of factors for older adults. In so doing, these researchers were able to explore the differences across racial and ethnic groups that included Hispanic older adults in their analysis (Travers et al., 2020).

Currently, the model is considered as a model for conceptualizing structural inequality through predisposing determinants that serve to reduce health beliefs and

quality of life (Anderson, 1995; D. R. Anderson et al., 2016; Clark et al., 1999). In using the assessment, individuals can perceive the direction of effect based on the characteristics of an individual (e.g., ethnicity) and environment (e.g., urban areas). Modern explorations have framed assessments of improving pain care at community health centers (Anderson et al., 2016), assessing PTSD symptoms in behavior symptom centers (Selwyn et al., 2019), and exploring at-risk patients and disparities in health care (L. Anderson et al., 2017).

For this study, the factor of age was considered within the context of African American children. Anderson's model served as a guide to understand resultant factors concerning healthcare services, challenges, and urban asthmatic children. The model served as a guide for exploring how equitable care access is provided to African American children in urban areas. Through this study and the framing from Anderson's behavioral model, robust information was gained that can aid in the production of equal access policies.

### **Healthcare Disparities in the United States**

The purpose of this study was to understand access to primary health care services among African American children with asthma that were from low socioeconomic status families living in urban areas. Health disparities are significant and represent a larger instrumental issue in the United States. In 2018, the United States Health Committee reported on existing minorities based upon previous survey assessments. Health disparities include a lack of equitable care and increased prevalence, mortality, and burden of disease for differing populations in the United States. Frequently, disparities

refer to sex, gender, and socioeconomic status (Baciu et al., 2017). In 2020, Health People released an exploration of how these disparities affect each of these groups, of which the exploration provided by Baciu et al. (2017) was founded. In the United States, racial and ethnic health disparities include increased infant mortality for African American mothers and Asian and Pacific Islanders. In 2015, for African American mothers, the low birthrate rose. However, for White infants, the low birthrate remained the same (Baciu et al., 2017). Further, obesity disproportionately impacts Hispanic children and adolescents compared to their White counterparts. Heart disease and cancer are 30% more likely to be linked to African American ethnicity (Baciu et al., 2017). According to Ebell et al. (2019), 44% of African American individuals in the United States are documented with a form of cardiovascular disease.

Researchers focus examinations on specific health disparities, such as cardiovascular disease, or towards the reasoning for such inequalities. Purnell et al. (2016) noted that disparities include failing to provide equitable translation and culturally sensitive care to patients. Knowledge of how to address the concerns of these populations is lacking for many specific geographic and ethnic-based populations (Purnell et al., 2016). Fiscella and Sanders (2016) argued that healthcare disparities are representative of systematic inequities in the United States that disproportionately impact ethnic and racial groups.

Fiscella and Sanders (2016) demonstrated these failings through exploring data from the National Healthcare and Quality and Disparities Reports from the United States. According to the authors, the data illustrate that clinicians lack proper resources, and



patients lack income to pay for services and prescriptions. Further, the care and quality provided to patients of non-White ethnicity are decreased in comparison to their White counterparts, thus leading to increased death of infants and increasing chronic health issues (Fiscella & Sanders, 2016). In considering the work of Fiscella and Sanders as well as Purnell et al. (2016), the complexity of health disparities is apparent and represents a dearth of modern academic explorations.

Models for reduction of healthcare disparities are most frequently focused on specific ethnic groups and health conditions. For example, Wasserman et al. (2019) illustrated the need for focusing on healthcare changes to mitigate structural inequality issues. The authors drew from the 2015 National Institute on Minority Health and Health to illustrate their recommendations. Wasserman et al. argued that reduction of health disparities is feasible but requires changes at the healthcare level. Caldwell et al. (2016) argued that reduction of disparities is an immediate concern that disproportionately impacts socioeconomic status. The authors used data from the Medical Expenditure Panel Survey from 2005-2010 to illustrate that communities in rural areas experienced differing concerns than urban health regions. For example, urban populations had more accessible access, but rural regions faced decreased patient care. This indicates that assessments focused on specific populations, socioeconomic status, and ethnicity can further provide information that may serve to decrease disparities in healthcare services.

### **Socio-Economic Status and Healthcare Access**

In this section, I discuss the current data illustrating correlations between socioeconomic status and healthcare access. However, to provide an understanding of

existent data, a definition of socioeconomic status is necessary to illustrate the definitions that researchers use to explore disparities in the United States.

In the United States, socioeconomic status and minority status are noted to disproportionately affect healthcare access and treatment outcomes. Literature illustrates significant gaps in the access, cost, and risk status based upon factors of minority and socioeconomic status (Balasubramaniam et al., 2018; C. E. Brown et al., 2018; Canedo et al., 2018; Inagaki et al., 2018). The Healthy Report 2020 demonstrates existent inequalities and the variables that contribute to disproportionality, such as social contexts and economic instability. According to the report, in 2015, a reported 43 million individuals lived in poverty, which the U.S. Census Bureau defined as a set dollar value that can also include external variables, such as social and community contexts. Variables that contribute to socioeconomic status include income level, education, and occupation status (McCormack et al., 2017; Williams et al., 2016).

### **Disparities in Access to Care for Selected Groups**

Racial and ethnic disparities vary by group. Moore et al. (2018) found that Blacks, American Indians, Alaska Natives, and Native Hawaiians/Pacific Islanders received worse care than Whites for about 40% of quality measures. Caraballo et al. (2020) found that Hispanic and Black individuals had experienced significant barriers to healthcare services for lack of insurance coverage and medical needs because of cost. In the United States, ethnic and minority status disproportionately impact access to healthcare. Further, ethnic and minority status are connected with an increased likelihood of low

socioeconomic status during an individual's lifetime (Farkas, 2017; Kalesan et al., 2016; Tomaskovic-Devey, 2019).

Researchers such as Brown et al. (2018) have explored the link between socioeconomic status and healthcare in end-of-life treatment and demonstrated that disparities serve to impact even elderly populations. Brown et al. (2018) performed an assessment of 22,068 individuals that lived between 2010 and 2015 and were noted to be minorities and of low socioeconomic status. The authors explored healthcare intensity, admission rates, use of ventilation, and cardiopulmonary resection rates. Binomial regression was used to assess divergences between socioeconomic status, age, ethnicity, education, and income. Resultantly, Brown et al. (2018) reported that minority groups with low education and income were most likely to be placed in high-intensity care and were also most likely to be associated with detrimental effects of healthcare inequalities in the United States. Canedo et al. (2018) also illustrated that socioeconomic status disproportionately affects the treatment of diabetes and ultimately may contribute to increased rates of diabetes in minority populations. Canedo et al. assessed data from the national 2013 Medical Expenditure Panel Survey and found that individuals of low socioeconomic status and classification as a minority were more likely to present with diabetes and to lack insurance coverage, ability to afford treatment, and education. Researchers Canedo et al. and Brown et al. (2018) demonstrated the ultimate impact of disparities in the United States. Thus, prevalence, lack of education, and poor end-of-life outcomes are more likely if an individual is of low socioeconomic and minority status in the United States.

Risk factors are also increased based on minority and socioeconomic status in the United States. Inagaki et al. (2018) explored risk factors for congenital cytomegalovirus infection (ccmv) through reviewing Kids Inpatient Database from 2000-2012. Demographic characteristics and geographical location were analyzed using multivariable logistic regression to assess for possible correlations. Resultantly, low parental education and socioeconomic status were associated with increased risk for ccmv. Further, geographic location increased the likelihood of risk, which was noted to be most common in the southern and western portions of the United States. Further, healthcare provider access is decreased when assessing for socioeconomic status. Davis et al. (2018) explored economic and healthcare professional access in the United States to explore the availability of physicians and access based on individual status. Data from the 3014 National Plan and Provider Enumeration System Medicare Claims illustrated that in rural areas, healthcare access is decreased based on socioeconomic status. Using national data, the researchers illustrated that physician access is most common in high-income communities. The same communities with healthcare access also exhibited higher rates of health status. Both Inagaki et al. and Davis et al. illustrated key findings regarding healthcare access and risk. Most notably, Davis et al. demonstrated that poor access to health is disproportionate to income status, which ultimately impacts the health status of communities.

Central contributors to healthcare access disparities are costs and availability of healthcare options and insurance. Pan et al. (2016) assessed the prevalence of risk, mortality, healthcare access, and mortality in association with cost and socioeconomic

status in a population of national participants diagnosed with bipolar affective disorder (BPD). Data were examined from 2008-2011 and the ultimate outcomes, costs, mortality, and treatment rates were explored using multivariate statistical analysis. Pan et al. demonstrated that socioeconomic status was associated with increased hospital treatment and mortality rates. Also, costs of healthcare were increased for individuals of low socioeconomic status. Research indicates that a significant disparity exists regarding the access to healthcare and the ability to afford the costs of visits (De Boer et al., 2019; Pan et al., 2016). The ability to stay in a hospital due to healthcare disparities is decreased due to lack of insurance or ability to pay for the visits (Chan et al., 2018). Literature also illustrates that cost disparities include poor access to medication that is costly without insurance (Blattner et al., 2018; Low et al., 2018; McCormick et al., 2020). Disparities in the United States create a gap in care for socioeconomic status and minority communities, both in healthcare access and the cost of treatment.

Ethnic status can also ultimately impact life expectancy and mortality risks in the United States. Literature from the National Report on Health in 2015 reported that the life expectancy for White males was 6.9 years longer than Black males. Minority status increased the risk and reported prevalence of hypertension, asthma, and obesity. Healthcare and dental care access and insurance coverage was 24.4% less likely for minority groups compared to White groups in the United States. Researchers illustrate that low socioeconomic status, lacking education, and ethnicity are more likely to lead to high-risk diseases (e.g., cancer) and ultimately contribute to mortality and risk disparities (L. Brown & Tucker-Seeley, 2018; Singh & Jemal, 2017). Literature indicates that

healthcare disparities are not only the lack of access or decreased access but also contribute to the increased likelihood of mortality.

Socioeconomic disparities can in part be predicted through exploring psychosocial mediators during early to late adulthood. Zahodne et al. (2017) explored socioeconomic data from the National Survey of Midlife Development and found that psychosocial mediators include economic, health, income, chronic health conditions, and cognitive disparities. The authors argued that this evidence illustrates that early life struggles, particularly in regard to income, lead to reduced cognitive outcomes for ethnic groups in the United States. The data were particularly significant for African American mediators from young to late adulthood. Researchers similarly corroborated the findings of Zahodne et al. (2017) by illustrating that social disparities significantly impact African American groups throughout their lives (Grandner et al., 2016; Valero-Elizondo et al., 2018). Socioeconomic disparities impact individuals throughout their lives and can ultimately reduce cognitive functions.

Socioeconomic and health disparities serve to impact an adolescent throughout their life and further impedes their ability to gain future opportunities and grow out of low socioeconomic settings. Tyler and Brockmann (2017) noted that the current socioeconomic disparities in the United States, such as education and income, feed into a cyclical loop that increases incarceration rates and impairs the ability for individuals to re-enter society. According to Tyler and Brockmann, “while the overall education attainment of Americans has improved since the 1980s, the percentage of incarcerated individual with less than a high school diploma increased over the same period” (p. 540).

Further, 60% of incarcerated individual were African Americans without a high school degree. Previously noted literature illustrates that social inequalities reduce the ability to receive healthcare and gain a sufficient income, thus impeding individuals' ability to finish school or go to college. Current models of social inequality serve to feed into health disparities as well. Tyler and Brockmann noted that poverty and health disparities are clearly related as they serve to ensure that low socioeconomic groups will remain in the same position and be unable to attain better lives. Tyler and Brockman noted several inequalities in health, such as the following:

- Black adults are at least 50% more likely to die prematurely (i.e., before age 75 years) of heart disease (the leading cause of death in the country) or stroke than their non-Hispanic white counterparts.
- adult diabetes is more prevalent among Hispanics, non-Hispanic Blacks, and those of other or mixed races than among Asians and non-Hispanic Whites; prevalence is also higher among adults without college degrees and those with lower household incomes.
- Hispanic women are twice as likely to contract cervical cancer as non-Hispanic White women.
- the infant mortality rate for non-Hispanic Blacks is more than double the rate for non-Hispanic Whites.

Anthropological assessments corroborate the findings of Tyler and Brockmann (2017). For example, Farmer (2004) regarded socioeconomic and health disparities as “pathologies of power” which serve to further disadvantage poor minority groups while

also excluding these same groups from intervention and policymaking discourse.

Similarly, Burgouis et al. (2019) regarded existent disparities in health and socioeconomic status as “structural vulnerability,” which ultimately operationalize in healthcare data but are presented as symptomatic of poor environment and home-related factors, which ignore the structural issues (e.g., poor housing and opportunities) inherent in urban and rural low-income regions.

In sum, significant disparities exist in access, risk, and mortality for minority and low socioeconomic groups in the United States. Literature from national reports and academic explorations from empirical data illustrates continued disproportionately into 2020 (Balasubramaniam et al., 2018; C. E. Brown et al., 2018; Canedo et al., 2018; Inagaki et al., 2018). Resources for individuals of low socioeconomic status and minority status are reduced, which ultimately leads to the inability to afford insurance and premium costs (Farkas, 2017; Healthy People, 2020; Kalesan et al., 2016). Problematically, disparities further impact children’s access to healthcare and increase their risks for certain conditions (Davis et al., 2018). Existing literature illustrates the extent of disparities in the United States. Research is often focused broadly on national data for all minorities and ethnicities.

### **Childhood Asthma**

Childhood asthma is a chronic long-term lung disease. It affects the airways, which are the tubes that carry the air in and out of the lungs. Over time, the airway reorganization that occurs with frequent asthma aggravations leads to greater lung function decline and more severe airway blockage. Omara et al. (2023) evaluated the



efficacy of asthma education on the frequency of utilization of healthcare services, lung function results, degree of asthma severity, and quality of life (QOL) levels in children with asthma and found that education improves asthma control.

### **Asthma Action Plan**

An Asthma Action Plan is a written plan that is developed by the pediatrician to help control the child's asthma. The Asthma Action Plan lists all medications with instruction on when they should be taken (Yin et al., 2015). The Action Plan also describes how to achieve long-term control and what to do when asthma symptoms arise. The East Coast Asthma Action Plan provides guidelines for asthma management and includes the recommendation that written asthma action plans be provided to all patients with asthma (Yin et al., 2015). These action plans help families understand daily preventive care and appropriate symptom management. To promote better understanding of the Asthma Action Plan among parents and caregivers, low health literacy strategies (easy-to-read) are used. These strategies facilitate improved comprehension, asthma management, and better outcomes. According to Yin et al. (2015), the use of the low-literacy Asthma Action Plan enhances the quality of asthma counseling by helping providers focus on crucial issues by using recommended clear communication principles.

One of the most common asthma action plans is the stoplight signal, which provides necessary steps. For example, the green indicates go and to use preventive medicine, the yellow indicates to utilize caution and add quick relief medicine, and the red indicates danger for an individual and to get help immediately (Zhu et al., 2020). Being in the green means an individual is doing well, as they sleep through the night, can

work and play, and are not coughing or wheezing (Zhu et al., 2020). The yellow zone indicates that something is happening, such as signs of cold, exposure to known triggers, coughing, and having a tight chest (Zhu et al., 2020). The red zone raises concern and indicates that an individual should get help if their medicine is not working, breathing is hard and fast, nose is open wide, or they cannot talk clearly.

### **Socioeconomic Status and Healthcare Access for African Americans**

Healthcare access is inequitably dispersed across the United States among those of differing socioeconomic or minority status (Balasubramaniam et al., 2018; C. E. Brown et al., 2018; Canedo et al., 2018; Inagaki et al., 2018). For the purpose of this study, it is important to consider data that are also specific to African American groups before discussing asthma disparities for African American children. In this section, relevant data regarding the disproportionality of health care access are presented.

Socioeconomically, significant data exist regarding disparities in health, income, and education for African Americans. According to the American Psychological Association (APA; 2020), 39% of African Americans reside in low socioeconomic urban regions, which is more than triple than White or Asian groups in the United States. Further, African American men are more likely to earn only 72% of the wage that a White man would earn for the same job. Educationally, African Americans are most likely to attend a high-poverty school and dropout before graduation, which literature suggests is due to internal racism in educational systems and poor support structures for low-income areas (APA, 2020).

Health disparities are more prevalent among African Americans than their White counterparts. Socioeconomic status and poor health access are noted to lead to worsening conditions and increased mortality rates for African Americans. Further, of all of the ethnic groups, African Americans experience the most significant health outcomes, which researchers suggest is related to a racially biased healthcare system (APA, 2020). Low birth rates and mortality are significant for African American groups. In terms of psychological health, African Americans are more likely to be diagnosed with depression but are less likely to seek out or receive mental health services due to internal community stigma and fear of external racial biases from practitioners. National data illustrate poor outcomes for African Americans in terms of physical and mental health.

Like other ethnic groups, African Americans notably underutilize healthcare services in the United States. Researchers assessed 14,906 minorities in the United States and found that healthcare services are most underused for African American men (Briggs, 2017; Villatoro et al., 2018). Briggs (2017) and Stepanikova and Oates (2017) noted that African Americans are more likely to avoid healthcare due to increased costs and concern over disparity in treatment. Literature additionally indicates that low-income disparities in African American and White groups are more closely connected with healthcare disparities (Assari & Bazargan, 2019). Contemporary research has begun assessing the disparities in health for African Americans in the United States.

In the United States, socioeconomic status is subsequently linked to the disproportionate access to healthcare and risk of diseases for African Americans in the healthcare system. For example, Van Dyke et al. (2017) explored 401 African American

and White groups in the Southeastern United States. The author employed a modified Experiences of Discrimination Scale and also statistically compared blood type groups. Van Dyke et al. reported that sociodemographic status and blood type of African Americans were more likely to be associated with discriminatory experiences and previous lack of healthcare access. Literature further suggests that socioeconomic status of African Americans is more likely to lead to diabetes (Zilioli et al., 2019), poor sleeping patterns (Van Dyke et al., 2016), and cardiovascular diseases (Bell et al., 2018). African Americans face discrimination and increased risk due to their ethnicity status, which is further compounded by socioeconomic status.

The disparities in healthcare access, risk, and outcomes are significant for African American populations. African Americans are at higher risks for decreased wages, living in poverty, and dropping out of high school (APA, 2020). Healthcare outcomes in terms of mental distress, cardiovascular disease, and risk of death are more pronounced in comparison to White and non-White ethnic groups (APA, 2020; Assari & Bazargan, 2018; Briggs, 2017; Stepanikova & Oates, 2017). Literature illustrates that current disparities are common for African American adults in the United States, which ultimately impact their communities and children. In reviewing national data, examinations of asthma-related health disparities are absent. Next, I provide a more detailed understanding of asthma and associated disparities in African American children.

### **Asthma in the United States**

Asthma is a growing issue for adults and children. Asthma involves the tightening or swelling of the airways that are designed to filter air from the nose and mouth towards

the lungs (Asthma and Allergy Foundation of America [AAFA], 2020). Various issues can trigger symptoms of coughing, tightness in the chest, and wheezing (AAFA, 2020). If asthma is not treated, it can be deadly, especially if an individual lacks a nebulizer or device to reduce the swelling of the throat and allow for air into the lungs (AAFA, 2020).

Across the United States, asthma is most prevalent in young adults and children, which may persist to adulthood. The CDC recorded that 1 in 13 individuals, or 25 million Americans, will have asthma. However, 8.4% are children, which is approximately 6.2 million American children (AAFA, 2020). Ebell et al. (2019) further illustrated that disparities are also focused on age and ethnicity (see Figure 2). Asthma ultimately presents as an issue that impacts a substantial portion of Americans but is noted to be a significant issue for children.

Asthmatic episodes can lead to serious health issues, missed school, and, in more rare cases, death. A 2015 AAFA report illustrated that 47.5% of children under the age of 18 are likely to have an asthma attack at least once a year. For children under 5 years, asthmatic episodes were 50% likely at least once a year. The death rates for asthma are significant. For example, in 2017, AAFA reported that 3,564 individuals died due to asthma, which could have been treated with proper care. Asthma is ultimately a dangerous condition and may lead to missed school, increased hospital visits, and, in severe cases, death. When more closely exploring healthcare data, disparities for ethnic and minority populations are evident. National reporting data from the AAFA and Ebell et al. (2019) confirm that asthmatic disparities are central to African American populations in rural and urban areas.

### **Disparities in Asthma Care for African American Children**

General asthmatic data from national reporting groups illustrate significant healthcare disparities. Data from the AAFA and Ebell et al. (2019) reported that asthma disproportionately impacts African American children than any other group. National reporting data illustrate that asthmatic episodes for African American children are more likely to lead to emergency visits and are most often associated with children under the age of 4 years (Ebell et al., 2019)). Research further demonstrates that African American children are three times more likely to be hospitalized due to asthma than other ethnic groups or White children (Voleran et al., 2017). Death due to asthma is three times more likely among African American children than their White counterparts.

In response to disparities, researchers provided some assessments regarding the etiology of the disparity. Voleran et al. (2017) explored asthmatic disparities in the United States. The authors noted increasing disparities based on national data, specifically among African American children. Voleran et al. further argued that factors that lead to disparities include current healthcare policies, structural inequalities in insurance coverage, and a noted lack of prescription of nebulizers to children of color. The authors argued that solutions for decreasing the issue of asthma disparities include assessing structural inequalities in healthcare and monitoring for the possibility of subtle or overt racism within healthcare providers' practices. Thus, one issue leading towards these disparities is the inclusion of possible racial biases, but also, fundamentally, the lack of nebulizer prescriptions for African American children versus other ethnicities or White groups.

Health literacy and socioeconomic status are also connected with asthma disparities. Curtis et al. (2012) explored health disparities in the United States by assessing health literacy in a sample of 353 individuals with persistent asthma from 2004 to 2007. The authors surveyed patient assessments regarding disease control, quality of life, emergency visits, and hospitalizations. Each patient was followed during a period of 2 years, and multivariate models were used to explore connections between asthma outcomes and health literacy. Curtis et al. (2012) reported that health literacy for African Americans was the lowest out of White and Hispanic groups. The authors argued that the findings illustrated disparities in health literacy for African American groups. Reasons and possible interventions for health literacy to decrease asthma outcomes for African American groups are not clear.

For African American children, readmission rates are also more significant than other minority and ethnic groups. Beck et al. (2016) explored data from the Greater Cincinnati Asthma Risks Study to explore readmission risks for asthma. A total of 695 children between the ages of 1 and 16 years old and who were African American and White and lived in urban settings were included. The findings indicated that roles to access, disparities in income, and identification as African American were noted risks for readmission rates into hospitals due to asthma. Also, 80% of the readmission rates were associated with African American children, which Beck et al. (2016) argued was representational of poor access to care and socioeconomic disparities. Literature further suggests that readmission rates for African Americans are associated with socioeconomic disparities, which ultimately lead towards readmission, hospitalization, and – albeit more

rarely – death (Philips et al., 2020; Molina et al., 2019; Ruffner et al., 2018). These studies illustrate the disparities are focused towards social inequalities in African American children that statistically are frequently associated with poor outcomes.

Readmission rates and poor pediatrician access are also increased for African American children with asthma. Young and Berry (2017) explored a set of national data and secondary literature regarding health inequities for ethnic and minority groups in the United States. The authors noted that the continued issue of disparities is seemingly unaddressed by policymakers, stakeholders, and federal institutions. The authors noted that a common issue, often unaddressed in exploring disparities, is the 20-day readmission rates for asthma. This issue indicates that the care, education, and resources received during the first visit to the emergency room were not adequate and that the pediatric follow-ups were not possible or did not provide equitable care. Young and Berry noted that secondary data indicate that pediatric clinicians and practices often limit the number of patients and visits, especially for patients with Medicaid. Resultantly, if released from the emergency room, the possibility of seeing a pediatrician within 30-days for a nonemergency visit is unlikely for many African American parents and children. As one example of secondary data used by Young and Berry (2017), Janevic et al. (2017) illustrated the lack of clinical care and pediatric visits for African American children. Janevic et al. assessed the clinical care and parental perceptions of care through exploring 805 parental perceptions through survey data. The authors followed up 1 year later regarding the patient care coordination; asthma management conditions; and the trust, access, and communication with the provider. Parents reported that if the parent and



provider access was improved, the asthmatic care and education was also improved. Parents that reported poor access, trust, and communication were more likely to report poor asthma outcomes and repeated visits to the ER. In the United States, access to pediatricians and hospital readmission for asthmatic conditions for African American children is a significant disparity that indicates issues in equitable care and healthcare access that overburden emergency rooms.

### **Family Provider Relationships**

Asthmatic disparities for African American children are also noted to be an issue that stems from family to provider integrations and pediatric asthma care. Trivedi et al. (2018) explored 647 parent populations using provided survey data to explore parent and pediatrician relationships and asthmatic care. Demographic information was gathered to assess for correlations between ethnicity and reported survey outcomes. The authors reported that using multivariate analysis illustrated that co-morbidities and asthma control were reduced if improved relationships were reported between the family and the pediatrician. Poor parent and pediatrician relationships were noted to lead to poor asthma control outcomes for African American children and parents. Kim and Pirritano (2019) explored the abundance of asthmatic control disparities for African American children and pediatrician relationships. The authors assessed a national sample of 119,2645 individuals in Los Angeles from 2013-2018. Data were also gathered for hospital readmissions and emergency visits for asthma-related issues. Kim and Pirritano reported that African American children were more likely to visit (70:1) the ER for asthma than White children. These same parents reported that they either did not have a stable

pediatrician relationship or that they did not experience positive outcomes in the emergency room. The literature illustrates that disparities are further complicated if poor pediatrician care or relationships exist.

### **Environmental Contexts**

Disparities in asthma for ethnic groups are noted to also cluster around social and environmental contexts. Brewer et al. (2017) assessed information from medical records in an urban Texas city. The authors also assessed social and environmental contexts to explore if asthma conditions in children were clustered statistically around these specific factors. Brewer et al. reported that disparities were clustered around poor air quality, lack of quality housing, low income, and lack of education. Comparatively, White children presented with fewer symptoms if they were living in affluent neighborhoods with high education and improved air quality conditions. Literature confirms these findings and further demonstrates the connected relationship between structural inequalities and the evident issues of asthma disparities for low-income African American groups in urban areas.

Poor asthma trends for ethnic groups are also noted in specific geographical regions due to larger clustering of urban and rural low socioeconomic status. In Miami, Beck et al. (2016) explored demographic data, asthmatic reporting, and Youth Risk Behavior Surveillance System emergency and hospitalization data to assess for ethnic variation and socioeconomic standing of children with asthma. Beck et al. reported that African Americans in zip codes with poor housing, low income, and low education demographics were 7.3 times more likely to have repeat emergency room visits for

asthma than other ethnicities or White groups. Literature further reports the same findings for urban areas of Houston, Texas with poor air quality and an increased risk for African American asthma (Bose & Diette, 2016; Kranjac et al., 2017; Raun et al., 2019). Pediatric asthma is more common in U.S. port cities, such as California (Sutherland, 2018). Racial status as African American, socioeconomic status, and living in areas with poor air quality are increased risk factors for continued asthma conditions.

### **Housing and Socioeconomic Contributors**

Housing is one element associated with low socioeconomic and minority status and negative asthmatic outcomes. Hughes et al. (2018) assessed housing through the 2011 American Housing Survey and explored correlations with childhood asthma diagnoses, emergency visits for asthma, and associated material hardships (e.g., lack of food and vehicle, crowded housing, and poor housing quality). The authors found that African Americans in poor housing and with increased material hardships were more likely to report with issues of emergency visits and poor asthma. Housing is also noted by researchers to be poorly constructed and overly crowded in low socioeconomic regions, which ultimately contributes to asthma flare-ups and return medical visits (Evans-Agnew, 2016; Harris et al., 2019; Marshall et al., 2020; Patel et al., 2019). Researchers must consider how structural inequalities in housing and material support lead to further aggravate asthma disparities for African American children.

Literature further demonstrates a connection between African American asthma disparities and acculturation and quality of life. Everhart et al. (2016) performed an assessment of African American parents and caregivers of children with asthma. The

authors assessed for the link between quality of life and acculturation, or the adoption of mainstream beliefs contrary to traditional values. The caregivers and parents were from low-income families in urban city contexts. Participants were provided the Pediatric Asthma Caregiver Quality of Life Questionnaire and the African American Acculturation Scale Revised. Resultantly, the authors found that a decreased acculturation tendency is a possible barrier to managing asthma in children. Since the 2016 publication, a similar assessment has not been repeated. There are some notable gaps in this assessment. The specific variables of acculturations, such as healthcare or lifeways, were not indicated. It is not possible to assess which acculturation variables appear to be barriers. The caregivers and parents were not interviewed, but only surveyed, which further reduces the ability to make detailed assessments regarding the participants' reflections of acculturation barriers.

Asthmatic data illustrate issues of healthcare disparities focused within African American groups (AAFA, 2020; Ebell et al., 2019)). Researchers illustrate that etiological roots of the disparity are resultant partially from bias of physicians towards children of color (Voleran et al., 2017, 2019). Some researchers suggest culturally competent care as a response towards biases and poor patient-physician care. Literature illustrates that poor patient-to-provider communication, trust, and relationships further add to the complexity of addressing asthmatic disparities (Kim & Pirritano, 2019; Trivedi et al., 2017). External issues regarding asthmatic disparities include poor social and environmental factors (Brewer et al., 2017), quality of life (Everhart et al., 2016), and poor resources (Janevic et al., 2016; Young & Berry, 2017). Disparities in asthma

focused towards African Americans located in low socioeconomic urban regions are discussed next.

### **Disparities in Asthmatic Care for African Americans in Urban Regions**

Most generally, asthmatic disparities are significant for African American children nationally; however, issues specific to urban regions are also notable. In this section, data reflecting the prevalence of disparities in urban regions are discussed. It is important to consider urban areas I data from Ebell et al. (2019) and the AAFA (2020) indicate that socioeconomic status, poverty, and inequality are more significant for African Americans in urban regions.

Low-income families are often clustered in urban city areas, which resultantly further include minority populations due to existent structural inequalities. Childs et al. (2017) noted that community health care centers serve as the front line for reducing disparities and providing culturally competent care; however, despite the existence of these strategies, disparities are still evident. Childs et al. provided some understanding of physician perspectives through reviewing physicians at community health centers that treat low socioeconomic minority groups for asthma in an urban city setting. A series of 14 interviews were used and assessed with secondary demographic data. Physicians reported that issues in treating these communities are focused towards the overwhelming number of patients that need to be treated at community health centers. The lack of pediatric appointments and PCPs at these clinics ultimately leads to significant barriers in treatment. Similarly, Kranjac et al. (2017) reviewed disparities in Houston, Texas to explore for asthmatic diagnoses and disparities by neighborhood. The authors reviewed

pediatric medical records and georeferenced associated social and economic data. The authors found statistical significance in the air quality and asthma symptoms in poor urban areas of the city. However, White children in affluent neighborhoods reported with fewer issues of asthma and also with higher air quality reporting. Multiple issues were present as significant barriers to urban children in low socioeconomic contexts, such as structural issues (e.g., low air quality in poor regions) and lack of structural support (e.g., community centers) to address the needs of children.

Poor urban outcomes for asthmatic treatment is partially linked to lack of primary care. Sadreameli et al. (2018) explored urban demographics and disparities through a review of 395 caregivers. The authors employed the Barriers to Care Questionnaire and explored the primary care visits for asthma, referral to allergist or pulmonologists in the past 2 years and explored emergency room visits across the past 3 months. The authors reported that 86% of patients reported with asthma conditions, but only 23% had a primary care doctor. Further, 29% frequently visited the emergency room for asthmatic flair-ups. Caregivers reported that barriers to treatment were lack of a PCP and lack of subspecialty visits. The physicians reported in these visits that 96% were African American and that 82% of these visits were qualified as low-income. Sadreameli et al. concluded that the barriers to treatments are important to consider; however, these findings illustrate that barriers to treatment are pointedly clustered within low-income, urban, African American children and stem from structural issues (e.g., lack of established physician). Returning to previous literature, the lack of PCPs is partially due to physician limit on pediatrician visits and poor coverage for education, resources, and

visits from Medicare (Kim & Pirritano, 2019; Trivedi et al., 2017; Volerman et al., 2017). Reducing disparities to lack of primary care fails to consider the structural inequalities inherent in the U.S. healthcare system.

One model for decreasing asthma in pediatric cases of African American asthma is the use of technology and community collaboration. MacDonnell et al. (2018) provided a pilot study to assess the usability of interventions with technology for the purpose of reducing childhood asthma in African American children. For this study, a piloted study was performed through collaboration with the National Heart, Lung, and Blood Institute with a sample of 192 African American children that had a history of consistent asthma symptoms, low medication prescription rates, and significant history of community clinic and emergency room visits. Technological intervention included text messages regarding medication adherence and motivational interviewing to ensure that proper education was provided. Resultantly, follow-ups in 3-month intervals revealed that African American asthma symptoms decreased due to medication and educational resources, and hospital and clinic visits decreased. Researchers illustrate that connecting children and parents with resources to ensure medication adherence and education regarding asthma flare-ups can decrease poor asthma outcomes for African American children (Bryant-Stephens et al., 2016; Patel & Papalardo, 2019). Intervention methods for decreasing disparities may be centered around technology and collaborative approaches.

Researchers also illustrate issues in inner-city urban regions that demonstrate higher levels of asthmatic disparities. Szeffler et al. (2019) provided an empirical examination that is relevant to the discussion of asthma disparities. The authors explored

240 children aged 5-14 in the Denver Public School system and assessed programs to reduce disparities from the years 2013-2015. Factors of school absences, asthma control, and rescue inhaler use were explored. The authors found that the use of control methods and the use of school programs to reduce disparities increased the asthma control for students in inner-city schools. The authors further noted that African American children in inner-city schools were most likely to exhibit poor asthma control or previous lack of inhaler use before program implementation. Similar literature by Stingone and Claudio (2006) explored a sample of aged 5 to 12-year-old children in inner city regions and reported that African American children were more likely to be released from school for asthmatic issues and lack of an inhaler. Absenteeism was more closely linked to African American children that experienced issues with asthma. These children are further receiving inequitable education due to the lack of asthmatic preparation, education, and resources (Stingone & Claudio, 2006). These findings illustrate that inner-city schools continue to experience ethnic disparities in asthma control, especially for African American children.

Asthmatic disparities are focused towards urban regions in the United States, which are inherently linked towards structural inequalities that serve to further increase the disparity of asthma in African America populations (Childs et al., 2017). Barriers to treatment for urban regions include poor resources and lack of pediatric visits in urban areas for patients with Medicare (Kim & Pirritano, 2019; Trivedi et al., 2017; Volerman et al., 2017). Additionally, physicians are noted to less frequently prescribe inhalers for African American children in urban regions (Stingone & Claudio, 2006; Szeffler et al.,



2019). Disparities are significantly clustered in urban regions, but caregiver and parental perspectives regarding this issue in urban contexts are absent in these assessments. Next, a key element often noted to be a solution to asthmatic disparities, cultural communication, is discussed.

### **Cross-Cultural Communication**

Cross-cultural communication is one model that physicians and researchers recommend for improving outcomes and reducing disparities for African American populations. Cross-cultural communication refers to communicating health needs, resources, and information in a manner that meets the culturally specific communication and needs of a specific population. For example, Patel et al. (2019) explored the efficacy of Physician Asthma Care Education (PACE) to assess the applicability of cross-cultural communication training as a model for decreasing asthma disparities. Participants included 112 physicians and 867 African American patients with asthma. The authors reported that PACE was useful for reducing hospitalizations, asthma symptoms, and improving patient provider communication results. These findings by Patel et al. (2019) further corroborated a similar exploration in 2017 by Patel et al. Regarding PACE for improving asthma pediatric outcomes. Patel et al. (2017) reported that the use of cross-cultural communication increased patient satisfaction and improved asthma control for African American children. The findings of Patel et al. (2017, 2019) are further corroborated by existent literature regarding asthma disparities in African American communities (Dowell et al., 2020; Harris et al., 2019; McCallum et al., 2017). More research is needed to examine the applicability of cross-cultural training for physicians;

however, preliminary research illustrates the efficacy of the model as one means of disparity reduction.

One model for reducing disparities in asthma in African American populations is the use of cross-cultural communication (Dowell et al., 2020; Harris et al., 2019; McCallum et al., 2017; Patel et al., 2019). Regarding these assessments, more research is needed to assess the efficacy of improved cross-cultural communication. The following presents the understanding of parental and physician perceptions of asthmatic health disparities in African American communities.

### **Physician and Parental Perceptions of Asthmatic Health Disparities in African American Communities**

In this section, parental and physician perceptions are reviewed. A review of parental and physician perspectives in academic literature is imperative. Assessment of physician and clinical perceptions of asthmatic health disparities are considerably more representational in academic literature than parental perceptions. These perceptions are reviewed to demonstrate the current barriers, facilitators, and opportunities for asthmatic disparities from clinical perspectives. First, physician perspectives are discussed.

#### **Physician Perspectives**

One method for reduction of disparities is considered the inclusion of federal policies and stakeholders to address and mitigate current gaps. Ashley et al. (2017) argued that reduction of racial and ethnic disparities in childhood asthma is only possible if federal actions are involved. Literature findings agreed with this suggestion (see Young

& Berry, 2017; Washington et al., 2018). The full federal involvement to reduce this disparity is not evident from recent academic explorations.

Physician stakeholder perceptions are also focused on the ability to implement changes directly within the school as a means of reducing asthma disparities. Snieder et al. (2017) assessed school-centered asthma programs (saps) through the perceptions of 13 school nurses, 10 physicians, and 12 parents. Each of the stakeholders was interviewed to assess their perceptions towards reducing disparities. The participants remarked that methods for reducing disparities were centered around improving the efficacy of saps. Participants remarked that a key issue should be communication from school nurses, parents, and physicians. School initiatives lack current efficacy but can be improved through the inclusion of parent and physician communication and perceived models for facilitators.

Literature also illustrates that environmental factors within the home may trigger asthma in children. D. R. Williams et al. (2016) explored a sample of 417 children in New York City and assessed child behavior and the home environment to explore for triggering factors. The authors detected significant triggers associated with asthma, such as tobacco use and aggressive parental behaviors. Children that reported with improved home lives were more likely to experience decreased negative asthma outcomes; however, ethnicity was not a focus of the author's study. Existent literature indicates that substandard housing for African American children (Davis et al., 2018) due to poor socioeconomic standing may serve to trigger asthma in African American children. Internal home triggers may be one element that leads to disparities in African American

children; however, literature focused toward ethnicity and socioeconomic status are needed to evaluate home environment factors.

Barriers to care are also reported to be poor communication and mutual understanding of events leading up to asthma care. In a review of physician experiences, Localio et al. (2019) assessed 12 physician assistant experiences in treating asthma and assessed patient transcripts from the providers regarding these experiences. The authors reported that significant gaps appeared evident from the physicians' reported understanding of the barriers and issues and the patients' reporting of the events. Localio et al. argued that researchers should more closely consider how gaps in patient and physician communication can be reduced for the purpose of ensuring that disparities are reduced. It is notably that physicians were provided an opportunity to be interviewed, but patients' transcripts from medical records were only reported. The lack of information available from the patients allows for limited conclusions regarding the ultimate facilitators for change regarding asthma care in terms of physician understanding and communication.

In terms of solutions for urban regions, partnerships and collaboration is one option which is found to be fruitful in some communities. Harris et al. (2019) noted the increased risk and disparity of asthmatic conditions for African American children in the urban region of Atlanta. One of the key elements contributing to disparities is an overwhelming mistrust of medical establishments due to racial healthcare disparities, a history of exploitation, and general poor cultural care competency in the United States (Harris et al., 2019). A faith and health-based partnership was developed in Atlanta to

bring together physicians and popular churches in the Atlanta region to provide culturally competent care that was also community and collaboration based. The *Not One More Life* collaboration showed promising results for the Atlantic community, and Harris et al. (2019) argued that similar collaborations are needed to reduce medical-centric methods that are based on valid historical and contemporary-based distrust and fear. The methods provided by Harris et al. are seemingly the only example of a model addressing the needs of urban African American children. These findings illustrate that involvement of parental and community concerns can serve to reduce disparities and increase culturally competent care.

Reeducation of disparities is also considered from longitudinal data when exploring physician perceptions. Washington et al. (2018) explored racial and ethnic disparities in childhood asthma for a sample of African American, Hispanic, and White patients. The researchers collected demographic data regarding caregiver health literacy and mediator analysis of relationships between race and asthma severity, education, and quality of life. Washington et al. reported that African Americans were most likely to report poor outcomes for health literacy and ultimately low quality of life and increased asthma severity in comparison to White groups. The authors argued that sociodemographic factors play a mediation role in asthma education, and health disparities can be partially reduced by physician actions to ensure education for these groups. Patient education may serve as one model for reducing disparities and ensuring that at-risk groups are more likely to be informed regarding asthma treatment methods.

## **Parental Perceptions of Barriers and Opportunities Regarding the Asthmatic Disparity**

Previous literature is largely based upon national survey data or locally focused survey data. Parental inclusion regarding parental perceptions is understudied. To provide context to the importance of this study, the few studies including parental perceptions are addressed in this section.

Patient-centered assessments are one possible model that may lead to reduced barriers for asthma disparity models. Kramer et al. (2016) assessed case study reports from a series of eight comparative effectiveness studies that were targeted towards Latino and African American students. The authors reported that the ideal model for reducing barriers, based on comparative studies, includes individual perceptions on how to reduce disparities versus excluding their perspectives. Kramer et al. also noted that efforts to include African American engagement is one model that can provide a renewed perspective regarding the factors that can be mitigated to reduce asthma disparities. McQuaid (2018) noted that models to reducing disparities include improving provider communication to patients, including patient and caregiver perceptions, and providing culturally informed models for intervention. Patient information and engagement is critical to the future identification of barriers, facilitators, and opportunities for change in reducing asthmatic disparities.

Parental perspectives regarding asthma management are lacking; however, some perceptions from adolescents are available. Evans-Agnew (2016) assessed a sample of adolescents in Seattle to explore issues that they reported relevant to their asthma

struggles. Each participant was included in a three-session photovoice project that was submitted to the Washington State asthma planning committee for the purpose of developing future interventions. Adolescent concerns included lack of opportunities for athletics, schools composed mainly of stairs (which triggered asthma), poor nutrition, and a lack of residential mobility. Evans-Agnew followed up with the state committee, but found the concerns were ultimately not addressed or included in plans. Evans-Agnew argued that these findings demonstrate the lack of consideration of stakeholder perspectives regarding asthma issues. Literature further reflects that policymakers and researchers thoroughly discuss disparities but fail to include such communities within an intervention-based discourse (Harris et al., 2019; Patel et al., 2019). Although interventions regarding asthma control can be clarified by stakeholder (e.g., parent and child) reports, these concerns are understudied in academia and unincorporated in policy making decisions.

In terms of poor patient perceptions, literature suggests that stakeholders should be involved in the communication and research process regarding asthma disparities. Shelef et al. (2016) noted that disparities in asthma reflect a continuing issue that fails to involve key stakeholders. Shelef et al. (2016) performed a 12-month assessment of stakeholder engagement and the central figures that should be included in the disparity conversation. For this process, the stakeholders included four parents with children of asthma; focus groups with African American parents; and four personal focus groups with the National Advisory core regarding asthma triggers, stress, medication adherence, and the youth at risk. For the focus of this present dissertation, the focus for parental

interviews included key stressors, coping strategies, and intervention preferences for children with asthma. Final parent reflections included the need for increased education regarding dealing with asthma but also a focus from stakeholders regarding how unemployment, poverty, and housing can complicate managing a child with asthma. The participants remarked the need for a culturally relevant and flexible approach that can be customized to the patient's needs. The work of Shelef et al. (2016) provides critical insight into the approach that is meaningful for decreasing disparities. The participant experiences were not the central theme of the investigation. The parental perceptions were grouped as "stakeholders," which limits the understanding of thematic assessments related specifically to the parents. This current research addressed the gap in Shelef et al. (2016) through a more personalized understanding regarding healthcare access in terms of African American children with asthma.

Parental perceptions regarding barriers and opportunities are critical as they provide a framework for policymakers and physicians to reduce ethnic asthmatic disparities. Volerman et al. (2017) provided one of the rare explorations of parental perceptions through interviewing 22 parents across 32 schools in an urban region. Grounded theory was used to explore and thematically analyze the reported barriers and facilitators. Reported barriers included poor communication and limited understanding of asthma in inner-city schools. Opportunities included educational programs and improved communication, and a model for contacting a provider if an asthma flare-up occurred. The researchers' work is critical as it illustrates previously understudied parental perceptions in regard to urban areas and also demonstrates methods for addressing the



current issues and disparities regarding asthmatic care. When exploring current academic literature (e.g., 2015-2020) similar assessments regarding African American perceptions of asthmatic disparities are absent. The findings of Volerman et al. do not address perceptions regarding access to health services or barriers and shortcomings of healthcare providers, physicians, or insurance-related issues. The findings are limited to the reported findings regarding inner-city school involvement.

In reviewing parental perceptions, literature demonstrates a focus towards healthcare providers' remarks and reported solutions to reducing asthma disparities. Suggestions included providing school program improvements (Snieder et al., 2017; Washington et al., 2018). The noted explorations of African American parents, caregivers, and adolescents are focused on barriers and socioeconomic issues, which fail to explore the access to primary health care services in low socioeconomic urban areas. Parental perceptions are limited to one assessment using qualitative parental perceptions, which is useful but was focused on inner-city needs regarding asthmatic barriers, facilitators, and opportunities for African American families with asthma.

Barriers further include the need for healthcare providers to provide more resources and ensure communication is clear for patients (Localio et al., 2019). For urban regions, literature further indicates that collaborative efforts within the community can be effective (Harris et al., 2019). Parental perceptions are limited in comparison to physician remarks. Kramer et al. (2016) and McQuaid (2018) argued for stakeholder inclusion. Shelef et al. (2016) demonstrated some remarks from parents, but these were closely focused on a larger examination of stakeholder perceptions. Volerman et al. (2017)

provided the sole examinations focused on parental perceptions and demonstrated the need for parental and physician communication to improve school interventions. As such, the following section demonstrates the current research gap based upon the findings illustrated in this literature review.

### **Research Gap**

Previous research reviewed in this chapter is targeted towards exploring national survey data and assessing statistically the predisposition and continued risk of health disparities for asthmatic African American children. Literature provides detailed information regarding the existence and continued problem of disparities in the United States (Fiscella & Sanders, 2016; Purnell et al., 2016). Also, assessments of socioeconomic status, health access, and resources is abundant using national survey data (Balasubramaniam et al., 2018; Brown et al., 2018; Canedo et al., 2018; Inagaki et al., 2018).

Explorations including the perceptions of African American parents or caregivers regarding the access to primary health care services in low socioeconomic urban areas is absent. The thorough review of literature only revealed one assessment using qualitative parental perceptions (see Volerman et al., 2017). Though useful, this qualitative assessment was focused on inner-city needs regarding asthmatic barriers, facilitators, and opportunities for African American families. When exploring parental perceptions, researchers Volerman et al. (2017) provided a review that was focused on barriers to treatment and physician relationships; however, the researchers did not clearly focus on the perceptions of parents and did not provide a review that could clearly explore the

parental perceptions towards barriers to healthcare access in regards to African American asthma.

The purpose of this study was to understand access and use of primary health care services among African American children with asthma that were from low socioeconomic status families living in urban area serves to fill a notable gap in previous literature. In this study, I sought to obtain the needed perceptions of parents and caregivers regarding access to healthcare to further address the gap in the academic literature regarding the inequitable asthmatic disparities for African American children in the United States. Exploring the perceptions of African American parents with asthmatic children can provide an understanding of healthcare access and emphasize factors that future researchers, policymakers, and physicians can examine to decrease the asthmatic disparity in the United States.

### **Summary and Conclusion**

Across the United States, 6.2 million children are affected by asthma (Guilbert et al., 2019); however, African American children are significantly more at risk for poor education, lack of resources, and death (Akinbami et al., 2016; Childs et al., 2017; Holder-Niles et al., 2017; Sadreameli et al., 2018). In this chapter, healthcare disparities were first reviewed. Previous research illustrates disparities for culturally sensitive care, including lack of resources and patient income for paying for medical services (Fiscelle et al., 2016; Purnell et al., 2016). Structural inequalities are noted to be a significant issue in the United States that serve to disadvantage people of color (Wasserman et al., 2019).

Subsequently, socioeconomic and minority status were discussed. Socioeconomic status includes a higher risk for poor healthcare access, an increased risk for poverty, and decreased likelihood of graduating high school or college (Balasubramaniam et al., 2018; C. E. Brown et al., 2018; Canedo et al., 2018; Inagaki et al., 2018). Researchers and national data illustrate that poverty is unequally distributed and is focalized towards rural areas and urban regions (Healthy People, 2020). Minorities and individuals of non-White ethnicities are more likely to be impacted by poor socioeconomic status and receive poor healthcare access that can impact the quality of life from adolescence to end-of-life (Brown et al., 2018). Risk factors are increased for minorities and ethnic populations in low socioeconomic regions (Davis et al., 2018; Inagaki et al., 2018). Resources are also reduced, and disparities continue to increase despite continued academic and national discourse regarding poor outcomes for low socioeconomic non-White populations (Farkas, 2017; Healthy People, 2020; Kalesan et al., 2016).

Regarding African American populations, statistics illustrate significant disparities that surpass data for White and non-African American ethnic groups (Briggs 2017; Villatoro et al., 2018). In assessing asthmatic data, African American children are more likely to receive inadequate care, poor resources, and a lack of asthma education. African American children are also more likely to die from asthmatic conditions (AAFA, 2020; Ebell et al., 2019; Volerman et al., 2017). Research indicates that the continued disparities in African American communities are detrimentally impacting low socioeconomic and urban groups in the United States (AAFA, 2020; Ebell et al., 2019; Trivedi et al., 2017; Volerman et al., 2017). Structural issues such as poor pediatrician

care (Kim & Pirritano, 2019), increased readmission rates due to lack of pediatric consultation (Young & Berry, 2017), and lacking asthmatic education (Stingone & Claudio, 2006; Szeffler et al., 2019) were linked to disparities in African American communities.

Data gathered for exploring disparities in African American asthmatic access to healthcare are focused primarily towards large national data and survey instrumentation. Though useful, few studies have explored parental perceptions. For example, Shelef et al. (2016) provided a review of information related to shareholder assessments that provided some barriers to service. Volerman et al. (2017) discussed parental perceptions towards accessing needed interventions in school settings. However, researchers such as Kramer et al. (2016) and McQuaid (2018) noted that there is a significant need for addressing stakeholder perceptions. Returning to the anthropological assessments of socioeconomic status and inequality, researchers such as Farmer (2004) and Burgouis (2017) noted that social inequality and healthcare disparities must include representative stakeholders to find evident solutions and explore barriers.

The purpose of this study was to understand access and use of primary health care services among African American children with asthma that were from low socioeconomic status families living in urban areas. In Chapter 3, I introduce the data collection and analysis methodologies used to achieve the purpose of this study. I discuss the research design and methodology as well as elements of trustworthiness and ethical assurances.

### Chapter 3: Research Method

Asthma is a condition that continues to disproportionately impact low-income minority children in urban areas (Akinbami et al., 2016; Childs et al., 2017; Holder-Niles et al., 2017; Sadreameli et al., 2018). The specific problem explored in this study was geared toward the parents' and caregiver's perceptions regarding the lack of primary care services among African American children with low SES based on perceived access to primary care services (Childs et al., 2017; Oldfield, 2019; Utidjian et al., 2017). The purpose of this study was to explore the perceptions of African American parents and guardians of children with asthma and their views on access to primary care. In this chapter, the research design, methodology, role of the researcher, data collection, and data analysis are discussed. Further, issues of trustworthiness and ethical procedures are presented.

#### **Research Design and Rationale**

The purpose of this study was to explore the perceptions of parents and guardians regarding access to primary health care services among African American children with asthma that were from low socioeconomic status families living in urban areas. To explore this phenomenon, the following research questions were used.

RQ1: How do parents and guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?

RQ2: How do parents and guardians of African American children with asthma living in urban areas described the factors that act as a barrier to primary case service use in the management of childhood asthma?

RQ3: How do parents and guardians of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma?

To address these research questions and the purpose of the study, a qualitative methodology and a general qualitative design was chosen. A qualitative methodology is the exploration of a specific phenomenon through exploring lived experiences, observations, or textual analysis (Tracy, 2019). Quantitative analysis includes exploring testable answers with statistical data (Saunders et al., 2018). For this study, the exploration of access and use of primary health care services among African American children with asthma from low socioeconomic status families living in urban areas did not requisite a statistical analysis. Further, the aim of the study was to explore participants' perceptions, which was aligned with a qualitative methodology. Thus, a qualitative approach was chosen to address the aim of this study.

In qualitative research, there are multiple research designs. These include, but are not limited to, ethnographic observation, phenomenological approaches, and case study designs (Tracy, 2019). An ethnographic observation includes observing a specific group of individuals to explore cultural practices and behaviors (Tracy, 2019). As the purpose of this study was not to gain insight into cultural processes, the ethnographic approach was not chosen. Next, the case study design involves exploring a phenomenon through

multiple sources of data, such as interviews and reviewing legal documents, for understanding a phenomenon in a unique setting (Yin, 2012). The purpose of this study was to understand perceptions towards primary care service use and barriers and not to explore this phenomenon from a specific hospital or geographic town, for example. As such, a case study approach was not chosen. Next, a phenomenological approach was considered. A phenomenological approach includes exploring the lived experiences of participants to contribute towards an understanding of a specific phenomenon (Tracy, 2019; Vagle, 2018). For this study, a narrative approach was deemed appropriate, as it allowed for exploring the lived experiences of participants regarding the phenomenon of access and use of primary health care services among African American children with asthma from low socioeconomic status families in urban areas.

### **Role of the Researcher**

As the researcher, I was the sole data collection instrument. I conducted interviews with participants and resultantly thematically analyzed the data. I did not expect to have any personal relationships or professional relationships with the participants of the study. However, I was aware that a relationship of power traditionally exists between the researcher and the participant (Tracy, 2019; Vagle, 2018). For example, interviewing a participant places the researcher with the power of asserting questions, which can also make a participant feel uncomfortable. To reduce this power relationship, I ensured participant confidentiality and anonymity. I ensured that all interviews were conducted in a comfortable and safe space to reduce any discomfort



during the interviews. Additionally, no incentives were provided for participants for this study.

An additional concern for research is researcher bias (Vagle, 2018). Researcher bias includes the possibility that the reflection and personal concerns of the researcher will influence the data collection and analysis process (Vagle, 2018). For this propose, I employed bracketing as means of documenting my bias or any unexpected instances of bias during the data collection and analysis process. Bracketing is the process of considering the personal bias and influences as they arise and noting these in a field journal (Janak, 2018; Vagle, 2018). This process creates reflexivity and awareness for the researcher to ensure that bias does not influence the ultimate research conclusions (Janak, 2018; Vagle, 2018). Following, the methodology for this study and details regarding data collection and analysis are provided.

### **Methodology**

In this section, the methodology for this study is presented. This first includes a thorough review of participant selection, sample size and saturation, and recruitment efforts. Subsequently, instrumentation, data collection, and data analysis methods are presented.

#### **Participant Selection Logic**

For this study, the population included African American parent(s) and guardians of children (e.g., under the age of 18) with asthma in urban areas. This population was appropriate as these individuals can provide information regarding the use, access, and potential barriers to treating their child's asthma through primary healthcare. The

population was appropriate as the individuals interviewed were over the age of 18 and contributed information regarding their child's healthcare access, use, and barriers without needing any direct involvement of the children.

### **Sampling Strategy and Criterion**

The sampling strategy that was used for this study included a nonprobability purposive sampling. In nonprobability purposive sampling, participants are selected due to their ability to contribute direct knowledge to the purpose of the study. The specific procedures for recruitment are discussed in the following sub-sections. The following criteria were used to ensure the selection of participants who could help to address the purpose of the study:

- Must be a parent or guardian of a child who is under the age of 18 with asthma.
- Must be an African American parent or guardian.
- Must be 18 years or older to participate in the study.
- Must live in a low socioeconomic urban region.
- Must be willing to be interviewed and audio-recorded during the interview.

To ensure that participants met these criteria, a short phone or email questionnaire regarding these criteria was provided to interested participants. Individuals that did not meet these criteria were excluded.

### **Sample Saturation**

The ideal sample size for this study was 10-12 participants. For a qualitative research approach, a specific sample size is not required; however, researchers suggest that data collection should proceed until data saturation is completed (Boddy, 2016;

Saunders et al., 2018). For example, if at 12 interviews new information is garnered from participants, then recruitment should continue until no new information is presented in the interviews. Saunders et al. (2018) recommended a minimum of 10-12 participants to initiate data collection to ensure saturation. To ensure data saturation, 12 participants minimum were chosen; however, recruitment continued until no new information was revealed during the interviews.

### **Participant Recruitment**

To recruit participants, I worked with the Pastor at the church by having him invite and direct participants to meet with me after service in the bulletin. In addition, I asked permission to place flyers on the bulletin board as well. I made myself available to collect names and phone numbers to coordinate interviews. Flyers (see Appendix X) were placed in surrounding churches in low socioeconomic urban areas of a county in the state of Connecticut. These flyers included a brief overview of the study purpose as well as my email and phone number. When a participant contacted me, I informed them further of the study and asked them questions to determine their eligibility for participation. If the participant fit the criteria, I then asked them to set up a time to sign consent forms in person. After consent forms were signed, each participant and I coordinated the interview time and place. Due to the COVID-19 pandemic, preference was made for audio recorded Zoom online meetings or in-person meetings.

### **Instrumentation**

The instrumentation for this study was an interview guide I developed. The interview question guide ensured that the questions asked would lead to information that

can contribute to the research questions and address the purpose of the study. The interview guide was developed and assessed by a set of three professional colleagues. These colleagues provided feedback regarding the clarity and organization of the questions. Revisions were made based on this feedback. The final interview guide is accessible in Appendix A. Table 1 depicts the study's interview guide.

**Table 1**

*Interview Guide*

Research questions	Interview questions
<p>RQ1: How do parents/guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?</p>	<ul style="list-style-type: none"> <li>• How old is/ are your child (children) who have asthma?</li> <li>• How old was your child (children) when their asthma was diagnosed?</li> <li>• Who diagnosed your child (children) with asthma?</li> <li>• How would you describe your child's asthma?               <ul style="list-style-type: none"> <li>○ Can you tell me more about your experiences?</li> </ul> </li> <li>• Does your child have a formal Asthma Action Plan (AAP)?</li> <li>• Do you use and follow this plan?</li> <li>• Can you tell me what helped you seek primary care for your child's asthma?               <ul style="list-style-type: none"> <li>○ Please tell me more about the things you described.</li> <li>○ How did you decide to take your child to their primary care doctor for their asthma?</li> </ul> </li> </ul>

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**RQ2:** How do parents/guardians of African American children with asthma living in urban areas described the factors that act as a barrier to primary care service use in the management of childhood asthma?

- What modifications have you made to your home or life to accommodate your child's asthma?
- How would you describe your ability to seek health care services?
- Please describe barriers that you had seeking primary care services for your child's asthma.
- Please tell me more about each of the barriers that you mentioned.
- If you could not recall any barriers, can you describe why?

**RQ3:** How do parents of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma?

- Please describe the need for services for primary care service use in the management of your child's asthma.
  - Do you believe that the need for services acts as a barrier? If so, can you describe why?
- Do you find that the current services are facilitators for primary care service users to manage your child's asthma?
  - If yes, can you please describe why?

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### **Procedures for Recruitment and Data Collection**

The sole individual collecting data was myself. Interviews were conducted through Zoom, an online conversation software, or in-person. Prior to the interviews,

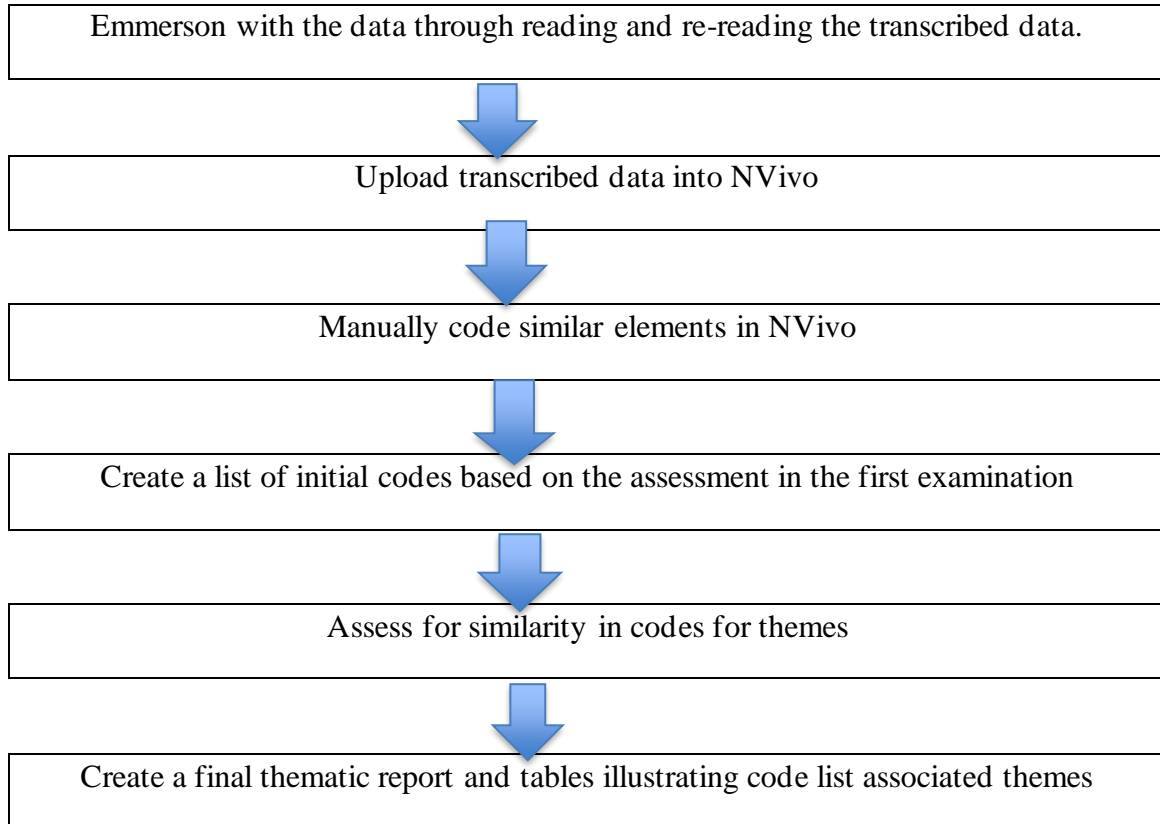
participants signed informed consent forms and acknowledged that they accepted to be audio recorded for the purpose of the study. Data were collected through semi-structured interviews that lasted for approximately 30-60 minutes. Participants were only interviewed once. Immediately after the interviews, the data were transcribed into a Microsoft Word document that was kept on a password-protected USB drive for future data analysis. During this process, each participant was coded with a unique identifier (e.g., P1) that precluded their personal name or information. No order was prescribed to number and naming the identifiers, as the purpose of coding the names was to ensure that participants could not be identified in future analyses.

After the interviews, the participants were thanked and encouraged to contact me if any questions or concerns arose. After the interviews, I transcribed each interview and provided these to the participants for member checking. Member checking is the process of allowing the participant to view the transcribed interview before data analysis for increased validity. During this process, if the participant identified that I incorrectly transcribed their experiences, or if I included personal identifiers accidentally, I corrected and removed or updated this information. However, if no issues were detected, I proceeded with data analysis.

### **Data Analysis**

In this section, the data analysis plan for the collected data is presented. First, after each interview, the data was transcribed into a Word document. Following transcription, the textual data were uploaded into the organizational coding software NVivo. I performed all coding; however, NVivo was a useful tool for coding and

organizing the transcribed data. In particular, I used the tool “nodes” to tag analogous words, phrases, or sentences in the text. After identification of similar elements, I examined for emergent themes. To guide this process, Braun, and Clarke’s (2006) six-steps for thematic analysis was used (see Figure 1).

**Figure 1***Data Analysis for Thematic Analysis*

After the coding procedures were completed, a list of themes and associated tables were presented for the results section of this dissertation. Following, a final report of the findings in congruence with previous literature was developed based upon these findings. Next, issues of trustworthiness are presented.

**Issues of Trustworthiness**

Issues of trustworthiness are critical to a research study (Connelly, 2016). Trustworthiness includes how transparent the methods presented are for replication and elements of trustworthiness of the researcher to complete the data in an ethical manner



(Connelly, 2016). In this section, the four elements of trustworthiness (e.g., credibility, transferability, dependability, and conformability) are discussed.

### **Credibility**

The credibility of the study refers to the efforts used to ensure that the findings accurately reflect the data collected (Connelly, 2016). For credibility, two main methods were ensured. First, member checking was applied to ensure that the data participants reported were accurate. Next, the methods used for this study followed the guidelines of previous empirical research regarding standardized models for data analysis, such as Braun and Clarke (2006). These methods provided a framework for ensuring the credibility of the study.

### **Transferability**

Transferability refers to the ability for the findings to be generalized to a similar population (Connelly, 2016). For this study, a phenomenological exploration was employed that draws from the lived experience of the participants. The findings presented are specific to these participants and cannot be generalized across the entire population of African American children with asthma living in low socioeconomic urban areas. However, the findings presented through thematic analysis may reveal data that can be used by future researchers to further explore the application of these findings to a larger population. To increase transferability, I provide a list of possible recommendations for future researchers based upon the findings of this study in Chapter 5.

**Dependability**

Dependability includes the strategies used that ensure that the findings are reliable and did not change over the period spent collecting, analyzing data, and presenting findings (Connelly, 2016). For this process, dependability included presenting the findings in a reliable manner through thematic analysis following Braun and Clarke (2006). Further, nothing is included in this study that would alter the participants' experiences. The experiences reflected are considered viable and reliable due to the interpersonal nature of lived experiences.

**Confirmability**

Confirmability refers to the ability for the findings to be reported by a similar researcher. Further, confirmability includes the ability of the researcher to mitigate bias from altering the study findings (Connelly, 2016). For this process, bracketing was employed following the recommendation of Janak (2018). I employed all possible efforts to ensure that any bias was not included within the study.

**Ethical Procedures**

The ethical procedures for a study are critical to ensuring the ethical treatment of human participants. For this, the first step in this study was obtaining IRB permission. I collected and analyzed data only after obtaining IRB approval. Next, ethical assurances were provided by clearly explaining the study to the participants, ensuring they consented to be recorded and interviewed, and providing informed consent forms to each participant prior to any interviews.

Additionally, all data were anonymized to ensure that personal names and identifiers were not disclosed throughout the entirety of the study. Also, all data were kept on a password-protected USB accessible only to me. This USB was kept in a locked desk in my personal computer room. Per IRB regulations, all data will be destroyed after 3 years of final dissertation completion.

### **Summary**

The purpose of this study was to explore the access and use of primary health care services among African American children with asthma that were from low socioeconomic status families living in urban areas. In Chapter 3, a detailed record of the data collection and analysis processes was discussed. The rationale for a qualitative methodology and a phenomenological design was provided. Afterwards, the recruitment procedures, sample size and saturation validation, and recruitment methods were presented. Lastly, the elements of trustworthiness and the ethical assurances were provided. In Chapter four, the findings of the study based on the proposed methodology are presented.

## Chapter 4: Results

### **Introduction**

The problem addressed in this study was that there is a lack of literature exploring parents' and caregivers' perceptions of lack of primary care services among African American children from low socioeconomic status families based on perceived access to primary care services (Childs et al., 2017; Oldfield, 2019; Utidjian et al., 2017). Because of the importance of primary care for improving outcomes for children with asthma, more research is needed regarding primary care access, such as availability, initial visits, and follow-up for African American children from low socioeconomic status families in urban areas from the parent/guardian perspective (Bellin et al., 2017; Harper et al., 2015; Trivedi et al., 2018). The purpose of this case study was to explore access and use of primary health care services among African American children with asthma that are from low socioeconomic status families living in urban areas. I sought to answer three research questions:

RQ1: How do parents and guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?

RQ2: How do parents and guardians of African American children with asthma living in urban areas described the factors that act as a barrier to primary case service use in the management of childhood asthma?

RQ3: How do parents and guardians of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma?

In this chapter, I neutrally and objectively present the findings of this research study. I present the data with the use of a clear text narrative that is supported by tables. Chapter 4 includes the following sections: (a) setting, (b) participant demographics, (c) data collection, (d) data analysis, (e) trustworthiness of data, (f) results, and (g) chapter summary. The findings are organized by the research questions.

### **Setting**

The study was conducted in local churches within low socioeconomic urban areas of a county in Connecticut. African American parents from these areas were selected to take part in the study. The participants were not influenced by any organizational or personal conditions. Moreover, no such conditions influenced their experience at the time of study because there were no budget cuts, changes of personnel, or other trauma. Therefore, the interpretation of the results of this study was not influenced by organizational or personal conditions.

### **Participant Demographics**

The participants in the current study included 10 African American parents and guardians of asthmatic children living in a low socioeconomic urban region. Inclusion criteria required that each participant was an African American guardian or parent of a child aged below 18 years who had asthma at the time of the study. I knew the real names of the participants. However, because anonymity and confidentiality of participants were

paramount in this study, the use of pseudonyms was an important consideration.

Therefore, I created pseudonyms for each participant which were used in place of their real names. The use of pseudonyms is consistent with a qualitative approach. Overall, assigning a pseudonym to each participant helped to ensure that their identity was protected. Each of the 10 participants stated that they were willing and prepared to engage in the semi-structured interviews that lasted for a period of 30 to 60 minutes. Most participants were in their 30s. The demographic information of the study subjects is summarized in Table 2.

**Table 2**

*Participant Demographics*

<b>Participant pseudonym</b>	<b>Gender</b>	<b>Age</b>	<b>Ethnicity</b>	<b>Has child diagnosed with asthma (yes/no)</b>	<b>Age child was first diagnosed with asthma</b>	<b>Current age of child with asthma</b>
Participant 1	F	30-39	Black	Yes	1.5 years	11 years
Participant 2	F	40-49	Black	Yes	4 years	16 years
Participant 3	F	20-29	Black	Yes	3 years	2 years
Participant 4	M	30-39	Black	Yes	4 years	7 years
Participant 5	F	30-39	Black	Yes	6 months	9 years
Participant 6	F	30-39	Black	Yes	6 years	8 years
Participant 7	F	30-39	Black	Yes	2.5 years	9 years
Participant 8	F	40-49	Black	Yes	3 years	14 years
Participant 9	F	20-29	Black	Yes	1 year	5 years

Participant 10	F	40- 49	Black	Yes	7 years and 15 years (two children)	10 and 17 (two children)
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### **Data Collection**

Ten participants were recruited for the study. Data saturation was reached with the tenth interview. This was an appropriate number, as it allowed me to easily conduct in-depth semi-structured interviews. The individual interviews were conducted online through Zoom and lasted for a period of up to 60 minutes. During the interviews, I used both semi-structured and open-ended interview questions. The interview data were recorded with the use of the default Zoom voice recorder, which allowed me to record the online Zoom meetings. Permission was first obtained from the participants before the recording. For backup, notes were taken using paper and pen for each interview. This was important in case something happened to the digital voice recorder and all the digital data was lost.

There were no variations in data collection from the plan presented in Chapter 3. For example, the plan was to interview 10-12 participants as outlined in Chapter 3, and I interviewed 10 participants. This number of participants allowed me to reach data saturation. During the interview, I utilized a guide and probed by asking follow-up questions. This was particularly appropriate when I had not fully understood a given response, when the answers were ambiguous or vague, and when I wanted to obtain more detailed or more specific information. No unusual circumstances were encountered when collecting data.

### **Data Analysis Procedure**

Verbatim transcripts of the 10 individual interviews were analyzed in NVivo 12 qualitative data analysis software. The data analysis procedure applied to the data was Braun and Clarke's (2006) six-step thematic analysis method. The procedure includes six steps: (a) familiarization, (b) generation of initial codes, (c) grouping codes, (d) reviewing themes, (e) defining final themes, and (f) producing results (Braun & Clarke, 2006).

The first step of the analysis involved familiarization with the data (Braun & Clarke, 2006). The data were read and reread in full. I made handwritten notes regarding points of potential analytical interest, including repeated ideas and phrases and key words from which codes might be developed in the second step of the analysis.

The second step of the analysis involved generating the initial codes (Braun & Clarke, 2006). I clustered into codes different excerpts from the transcripts that expressed similar meanings. Those codes were then labeled with descriptive phrases that indicated the meaning of the data assigned to them. For example, Participant 4 spoke about her child exhibiting symptoms of serious illness, saying that, "He was having trouble breathing one afternoon. "We brought him to the urgent care," and Participant 3 said that she noticed severe symptoms, saying, "Well, it was very severe, because when I realized he couldn't breathe, and he was wheezing, and I wasn't sure what was going on. So, I took him to the emergency room." Both of these responses indicated that the participants saw their children having breathing problems, so both responses were assigned to the same code, which was labeled, 'wheezing and breathing problems.' In total, 188 response



excerpts were assigned to 40 codes. Table 3 indicates the initial codes and the number of response excerpts that were assigned to each of them (i.e., the code frequencies).

**Table 3**

*Initial Code Frequencies*

Initial code	Code frequency in interviews
Wheezing and breathing problems	30
Incessant coughing	4
Child had asthma attacks	14
Heart rate was high	3
High temperature	2
Cough not going away	3
Child not feeling well and in discomfort	18
Doctors said child had asthma	6
Child given inhaler and asthma medication by the doctor	4
Accessibility of primary provider	2
Locating a reputable medical facility that was closer to where they lived was a challenge	4
Reliability and finding someone who is capable of treating asthma in children was a barrier	7
Lack of transportation when going for appointment	17
High cost and socioeconomic barriers	5
Racial and ethnic discrimination or barriers	5
Childhood asthma in black children not taken seriously by doctors	16
No follow up in the current services	11
Asthma in children not given priority	5
Health professionals overlook some underlying issues	5
The need for services acts as a barrier	28
Communication and education about asthma in children and about accessing resources and services in the community	7
Not enough black doctors	4
Have a specialist that diagnoses children	5

The third step of the analysis entailed grouping codes (Braun & Clarke, 2006). I grouped codes to form themes. When different codes indicated different aspects of the same broader, overarching idea, I identified them as related and clustered them to form a theme. For example, the three codes ‘cough not going away,’ ‘wheezing and breathing problems,’ and, ‘heart rate was high’ were grouped into a theme because they all indicated symptoms of serious illness. The three codes ‘accessibility of primary provider,’ ‘reliability and finding someone who is capable of treating asthma in children was a barrier,’ and ‘locating a reputable medical facility that was closer to where they lived was a challenge’ were grouped into a second theme because they all indicated difficulty in finding easily accessible and reliable medical facility or pediatrician. In total, the 40 initial codes were clustered into seven themes.

The fourth step of the analysis consisted of reviewing the themes (Braun & Clarke, 2006). I cross-checked the themes against one another to ensure the ideas they represented did not overlap. I also compared the themes to the original data to ensure they indicated patterns in the responses of the participants. In the fifth step of the analysis, the themes were named and defined (Braun & Clarke, 2006). Theme definitions are provided in the Results section of this chapter. The sixth step of data analysis involved presenting the results by writing this chapter (Braun & Clarke, 2006). As a preliminary overview of the results, Table 4 shows how the initial codes were grouped into the finalized themes.

**Table 4*****Grouping of Codes Into Finalized Themes***

Theme Initial code clustered to identify theme	Theme frequency in interviews
Theme 1: Symptoms of serious illness in child encouraged parents to use primary care service Child not feeling well and in discomfort. Cough not going away. Child had asthma attacks. Wheezing and breathing problems	74
Theme 2: Difficulty in finding easily accessible and reliable medical facility or pediatrician Locating a reputable medical facility that was closer to where they lived was a challenge Reliability and finding someone who can treat asthma in children was a barrier Researched to find the right healthcare and doctor Accessibility of primary provider	18
Theme 3: High cost of treatment and lack of transportation High cost and socioeconomic barriers Lack of transportation when going for appointment	22
Theme 4: Racial and ethnic discrimination, childhood asthma in Black children not taken seriously by doctors, and lack of follow-up Racial and ethnic discrimination or barriers Not taken seriously No follow-up in the current services	32
Theme 5: The need for services acts as a barrier to primary care service use No one to help the parent manage child's asthma and no one to give them direction Pediatrician group not providing great services There's need for services	43
Theme 6: Communicating and educating African American parents about childhood asthma and how to access services and resources There's need for communication about asthma in children and about accessing resources and services in the community There's need for education about childhood asthma and how parents can find resources	11
Theme 7: Have more specialists, including Black doctors, diagnose children Have a specialist that diagnoses children instead of using regular pediatricians Inadequate specialists for respiratory illnesses	12

### **Evidence of Trustworthiness**

Trustworthiness is understood as the level of confidence in data, interpretation, as well as methods utilized to ensure the quality of a given research study. It also refers to the truthfulness, authenticity, and quality of findings (Morrow, 2005). There are four specific criteria that are usually used to judge the soundness of qualitative research: credibility, transferability, dependability, and confirmability. The four components correspond, respectively, to the quantitative constructs of internal validity, external validity, reliability, and objectivity. The following sections indicate how each component of trustworthiness was strengthened in this study.

#### **Credibility**

Credibility is the internal validity of qualitative research. It represents how congruent the findings are with reality (Amin et al., 2020). It is also a measure of the truth value of qualitative research, or whether the findings are accurate (Lincoln & Guba, 1985). In the current study, several strategies were utilized to strengthen this criterion of trustworthiness. One of them was member checking. Member checks were utilized for establishing credibility. This is also commonly referred to as respondent or participant validation (Morrow, 2005). After collecting data from the participants, I returned the data to them to check for accuracy as well as resonance with their experiences. Results were also returned to them to check for accuracy. All 10 participants confirmed that the data gathered from them were accurate; hence, credibility was established.

Another procedure that was employed for the purpose of increasing the study's credibility was deviant case or negative case analysis. This is understood as a technique

for ensuring the validity of the interpretation of qualitative data by analyzing outlier data (Johnson et al., 2020). By conducting negative case analysis, I identified elements of the data that disconfirmed emergent findings. The procedure was done by finding and discussing data that contradicted the explanations that were emerging from the research. Data analysis was refined whenever a new negative case arose and this revision went on until the study could explain most of the data captured in the research. In essence, this procedure helped to refine all the conclusions reached until they accounted for all the known cases without exception.

### **Transferability**

Transferability is the second major aspect of trustworthiness. It is understood as the generalizability of inquiry. This only concerns case-to-case transfer in qualitative research (Amin et al., 2020). Data are transferable to the extent that they hold true of settings and samples other than those from which they were derived (Lincoln & Guba, 1985). For this study, this criterion of trustworthiness was established through thick description of the participants, which is provided as follows. The respondents included African American parents and guardians with children under the age of 18 who have asthma. At the time of study, they all lived in a low socioeconomic urban regions. Most of them were female. By collecting data from the participants through one-on-one semi-structured interviews, I was able to gain an in-depth understanding of the access and use of primary health care services among African American children with asthma that are from low socioeconomic status families living in urban areas. Furthermore, to assist the reader in assessing the transferability of the findings in this study to other samples and

settings, I provided descriptions of the inclusion criteria for the study sample in Chapter 3, and all members of the recruited sample met those criteria. In addition, I provide thick descriptions of the findings in the Results section of this chapter in the form of direct quotes from the data so that, with participants' own words, the contexts and perspectives from which they were speaking are conveyed to the reader.

### **Dependability**

Dependability is utilized in demonstrating or measuring the reliability and consistency of the results of the study. It is the extent to which the procedures in a study can be replicated in the same research context to obtain the same results (Lincoln & Guba, 1985). This criterion of trustworthiness is mainly focused on whether the same results would be attained if the same study is conducted twice (Morrow, 2005). For this study, dependability was established such that if someone else wanted to replicate it, they would have adequate information from the research report to do so and obtain findings similar to those presented in the current study.

The strategy that was used to establish dependability is inquiry audit or audit trail of the study procedures. The detailed descriptions of the study procedures in Chapter 3 will enable the reader, if necessary, to verify the integrity of those procedures by replicating the study. An audit trail, according to Nowell et al. (2017), refers to a transparent description of the steps taken in a research study from the beginning of the project until the findings were reported. In the current study, eight steps were followed. The first step entailed determining what to research. I sought to explore access and use of primary health care services among African American children with asthma that are from

low socioeconomic status families living in urban areas. The second step was identifying how to research the identified problem (Nowell et al., 2017). In the current study, this step involved looking through secondary data and research including research reports and studies carried out previously. The methodology to use was also determined, which was the qualitative phenomenological approach. This was best suited for this study as it allowed me to explore the lived experiences of participants regarding the phenomenon of access and use of primary health care services among African American children with asthma from low socio-economic status families in urban areas. Semi-structured interviews with open-ended questions were selected for collection of data. After determining what to research and how the study would be carried out, the third step entailed writing up a research plan, which provided more information regarding the timelines, goals of the research, dependencies, and participant scope.

In step four, the research was prepared. This was done by selecting the participants, scheduling interviews, and preparing Zoom meetings and the necessary equipment. Step five included executing the research, which was accomplished within a period of roughly 2 weeks. Interviews were conducted with 10 participants online via Zoom. The data were recorded using the default Zoom voice recorder. Notes were taken using pen and paper for backup. An audit trail was kept of all the notes that were taken during each of the 10 interviews. Follow-up questions were asked during each interview.

The sixth step included coding and synthesizing the data to find insights. I used thematic analysis to code the data with the assistance of NVivo 12 software. Themes were found that resulted in the generation of insight which helped to answer the research

questions and achieve the goal of the study. In the seventh step, the research output was created. This was a report outlining major findings from the study in a document format. It encompassed an executive summary, insight themes, as well as supporting evidence. The final step is sharing the findings with key stakeholders (Nowell et al., 2017). Important records were kept with regard to what I did during the research. These include information on how the data collection instrument was developed; all raw data and notes taken during each semi-structured interview; trustworthiness notes pertaining to confirmability, dependability, credibility, and transferability; and a codebook showing a list of all the codes that were utilized in the data analysis process.

The audit trail describes all the steps that were taken to complete this research project successfully from the beginning until when the findings were reported. By following it, other researchers might be able to obtain the same results. Therefore, dependability is established.

### **Confirmability**

The final component of trustworthiness that was established in this study is confirmability. It refers to the degree of neutrality in the findings of a given research study (Amin et al., 2020). Simply put, it denotes that the findings are founded upon the responses of the study subjects and not on the researcher's personal motivations or bias (Lincoln & Guba, 1985). In the current study, this criterion of trustworthiness was established through an audit trail, which highlights each step that was taken during the analysis of data to provide a justification for the decisions that were made. Specifically, six steps were made when analyzing the data consistent with the thematic analysis



process described by Braun and Clarke (2006). Moreover, the member checking procedure used in this study contributed to confirmability by allowing the participants to verify that my interpretations of the data accurately reflected their intended meanings rather than any of my own biases. The field test and expert panel review of the interview guide contributed to ensuring that the questions were free from bias, in that they would not influence participants' responses unduly by suggesting preferred or expected answers.

### **Results**

I sought to explore access and use of primary health care services among African American children with asthma that are from low socioeconomic status families living in urban areas. In this section, I provide the results of this study. The findings are presented in detail. In total, seven themes emerged from the data. The results of the data analysis are organized by the research questions. The themes are summarized in Table 5.

**Table 5*****Research Questions and Corresponding Themes***

<b>Research question</b>	<b>Themes used to address the research question</b>
RQ1: How do parents/guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?	Theme 1: Symptoms of serious illness in child encouraged parents to use primary care service
RQ2: How do parents/guardians of African American children with asthma living in urban areas describe the factors that act as a barrier to primary case service use in the management of childhood asthma?	Theme 2: Difficulty in finding easily accessible and reliable medical facility or pediatrician Theme 3: High cost of treatment and lack of transportation Theme 4: Racial and ethnic discrimination, childhood asthma in Black children not taken seriously by doctors, and lack of follow-up
RQ3: How do parents of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma?	Theme 5: The need for services acts as a barrier to primary care service use Theme 6: Communicating to and educating African American parents about childhood asthma and how to access services and resources Theme 7: Have more specialists, including Black doctors, diagnose children rather than using general pediatricians

**Research Question 1**

For this study, the first research question was as follows: How do parents and guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?

One theme emerged from the data that helped to answer this question. This is as follows:

(a) Theme 1: Symptoms of serious illness in child encouraged parents to use primary care service.

***Theme 1: Symptoms of Serious Illness in Child Encouraged Parents to Use Primary Care Service***

Data supporting this theme were drawn from all 10 individual interviews. The finding indicated that, according to the participants, symptoms of serious illness in their

child encouraged them to use primary care service. Participant 1 talked about her child coughing persistently, stating that, “Her coughing was incessant coughing. And then eventually I said, well, this is the next year. She had it again. Then the next year, she had it again. It [the cough] wasn't going away.” Participant 3 mentioned that she noticed her child wheezing and struggling to breathe, which prompted her to rush the child to hospital:

I realized that every time he gets a cold, which is not very often, he would struggle to breathe and wheezing and stuff like that, so I was concerned. Then it got to the point where he was wheezing and could hardly breathe, and that's when I decided that, "Okay, I have to take him," because I used to give him cold medicine, and it would go away. But then this time, it was bad, to the point where I had to rush him to the emergency room.

Similarly, Participant 4 noted, “He was having trouble breathing one afternoon. We brought him to the urgent care.” According to Participant 5:

So, when he was about six months old, he had a cold. And the cold had moved into his lungs and so he was having a tough time breathing. And when we took him to the doctor, they did the whole workup and determined that he indeed had asthma. And it was just not a cold, it wasn't bronchitis, it was asthma.

Participant 6 stated, “Well, he had difficulty breathing and always had a cold. So, I took him to the doctor and the diagnosis was that he has asthma.” Participant 10 also spoke about how symptoms of serious illness encouraged her to use primary care service in the management of childhood asthma. She stated the following:

And then his heart rate was like 150 or something at that point. And she said, "I'm canceling your appointment, I'm calling an ambulance." He was there, they gave him treatment in the ambulance and when he got to the emergency room, they gave him steroids and his heart rate was still high, so he stayed overnight. And the fact that I saw him, when she had put the blood pressure cuff on his wrist and she saw the heart rate, and the doctor was so nervous made me even more nervous and it was a very scary situation when you see your child be in discomfort.

### **Research Question 2**

The second research question was as follows: How do parents and guardians of African American children with asthma living in urban areas describe the factors that act as a barrier to primary care service use in the management of childhood asthma? Three themes emerged from the data that helped to address this question. These are (a) Theme 2: Difficulty in finding easily accessible and reliable medical facility or pediatrician; (b) Theme 3: High cost of treatment and lack of transportation; and (c) Theme 4: Racial and ethnic discrimination, childhood asthma in Black children not taken seriously by doctors, and lack of follow-up.

#### ***Theme 2: Difficulty in Finding Easily Accessible and Reliable Medical Facility or Pediatrician was a Barrier***

Seven interview participants contributed to this theme. The finding demonstrated that according to the participants, the difficulty in finding a medical facility or pediatrician that is reliable and easily accessible acted as a barrier to their primary care service use in the management of childhood asthma. Participant 1 indicated that the

managing of her child's asthma is not the greatest, noting that, "Yeah. It's not," suggesting unreliability of her pediatrician. According to Participant 2:

So, the biggest barrier was reliability. Reliability, meaning having someone who had the credentials to treat, someone who was within my town. So easy access, having a facility that was accessible. Where we felt that our needs would be met with competency.

Moreover, Participant 2 noted that:

That was our biggest challenge, being able to locate a medical facility that was somewhat reputable in our area where we lived. I found it very challenging that I had to get in my vehicle and drive to another town where the resources were. They were just not available where we lived, there were medical facilities like urgent cares, or if you will, but they didn't really specialize in how to properly treat asthma. They didn't go in depth. That was my experience initially.

Participant 4 spoke about the challenge pertaining to accessing primary care providers, as the time when they are open is rather limited, noting that, "Probably just in the event that he has an asthma attack, just the accessibility of his primary provider because those clinics usually have a close time of 5:00 PM, and they're usually a Monday to Friday type of thing." Participant 6 considers the services as not being reliable because they are offered in a slow pace. She said, "It's [primary care service for asthma in children] a little bit of slow pace." Participant 9 talked about the services being unreliable, stating,

They don't sit and get to know the child. And for the child to explain to them how they are feeling, because I can only tell you what I know is on the outside, but my child can tell you what she's feeling on the inside, and they don't get to see that part, and they prescribe all these medications. And I'm like, "No, I want to know what you're giving my child."

***Theme 3: High Cost of Treatment and Lack of Transportation***

Six interview participants contributed to this theme. This theme suggests that the parents and guardians with asthmatic children identified high asthma treatment cost and lack of transportation as another barrier to their primary care service use in the management of childhood obesity. According to Participant 4, "At times, cost can be a barrier. Generally, the inhalers aren't very expensive, but sometimes when we use them before we can refill them, cost can be a barrier." Participant 4 also mentioned,

Using Uber or Lyft all the time can be a little difficult if we can't find someone to bring us from the pediatrician. We're about 25 minutes' drive, and urgent care, maybe about 10 to 15. But using ride-share apps such as Uber, that ride could be about \$30 one way, depending on the time...Or if the copay was less, I would be open to taking him to an emergency room. But the visit just to be seen could be upwards of \$300.

Participant 8 reported, "Sometimes there is socioeconomic barriers that I will face."

Participant 3 spoke about a barrier related to the lack of transportation, indicating that,

"So I don't see any barrier apart from maybe transportation. Sometimes I don't have a ride to get there. So that would be one barrier." She added that, "But in terms of healthcare, he

does have healthcare, so the only barrier I would see is sometimes to get to his appointment.” Likewise, Participant 4 said that “Sometimes transportation's an issue, as well, because we don't have a car right now.” Participant 6 also noted that she did not have transportation, stating, “No. Bus or taxi” and only has to use public transportation.

***Theme 4: Racial and Ethnic Discrimination, Childhood Asthma in African American Children Not Taken Seriously by Doctors, and a Lack of Follow-up***

Seven out of 10 participants who took part in the semi-structured interviews contributed to this theme. The theme indicated that the participants also identified racial and ethnic discrimination, childhood asthma in Black children not being taken seriously by the medical professionals, and a lack of follow-up by pediatricians as another factor that serves as a barrier to their primary care service use in the management of childhood asthma. Participant 1 stated, “I don't feel that they make it [asthma in children] a priority.” This participant also mentioned the following:

Sometimes I feel it's that it might be looked on like, oh, that's something normal or for your culture or something like that...It's a cultural thing. It's having certain diseases or certain medical ailments, it's more dominant in certain cultures. But I don't know if that's, so it doesn't get treated as a priority.

Based on what she has seen regarding how the pediatricians have treated her child or looked at her child, I asked Participant 1 whether she does not think they have done that to another race or nationality. Participant 1 replied, “Yeah, I think so.” Participant 7 noted the following:

But yeah, they do the breathing test. They look and see what he's allergic to, but

as I said, I feel like the rate at which they do it are few and far in between. I feel like if you don't fight for it, they would've had him in the same system as they had him on when he was two to three. They will just let it ride if it works, or as long as you don't complain too much.

Similarly, Participant 9 reported, “they don't take enough time to know each patient. They're just about numbers. They're not about patient.” According to Participant 8, “The only barrier that I would think would be maybe racial barriers.” Participant 5 talked about the lack of follow-up, reporting that, “In terms of managing my child's asthma, so there's no follow through. So even though my child has asthma, until I show up to the doctor, there's no follow up.” Participant 6 also talked about a lack of follow-up by pediatricians, stating that, “You should have someone who calls the parents, keep up with the child progress, find out... if it's even once a month, follow up with the parents. How is your child doing? Is he following protocol, you know?”

### **Research Question 3**

For this study, the third research question was as follows: How do parents and guardians of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma? Three themes emerged from the data that help to answer RQ3. These are (a) Theme 5: The need for services acts as a barrier to primary care service use; (b) Theme 6: Education and communication about childhood asthma and how to access services and resources; and (c) Theme 7: Have more



specialists, including Black doctors, diagnose children rather than using general pediatricians.

***Theme 5: The Need for Services Acts as a Barrier to Primary Care Service Use***

Nine out of the 10 interview participants contributed to this theme. The theme shows that the participants indicated the need for services as a barrier to primary care service use in the management of childhood asthma. When asked whether she believes that the need for service acts as a barrier, Participant 1 responded saying, “Yes.” She added:

So, because I think the focus on that one thing, I do think you have someone here that has issues with breathing. You must live, but it's not a focus. So, I think that service, the specialty, is a barrier right there.

Likewise, when Participant 2 was asked whether she believes that the need for services acts as a barrier, she responded by stating, “Absolutely.” She added:

So, some of the barriers is just not having the pediatricians in place within the urban community. You must step outside of the community. So, we need to bring these pediatricians, these qualified pediatricians, and doctors, into the community. Perhaps going into the community centers a couple of days a week and providing services that could potentially be free, or whatever it takes...They must come into the community because not everyone has a vehicle. Not everyone can afford public transportation...Providing vouchers so that families can get around on the bus or Uber. But if you have a sick child, who can afford to go to the emergency room.

Participant 3 also mentioned that the need for service acts as a barrier, saying, “The need for service acting as a barrier. Okay. Oh, I understand it is.” Participant 3 added the following:

If my child needs to go to his doctor, I must go every two or three months to meet with them to go over the plan that they must make sure that we're following it for his checkup. And if I can't get there sometime, they'll feel like I'm not interested in taking him to his appointment, which that's not the case. It's just the fact that it's far away and I don't currently have a direct ride there.

Moreover, Participant 4 noted that she believes that the need for service acts as a barrier. She noted, “I think so [the need for service acting as a barrier]. I'd probably say so. I haven't really had a major issue, though.” She also indicated that,

I think just due to the insurance that we do have, the lack of providers in our network could be a barrier to care. But since his asthma is not very severe, we haven't really run into a major issue.

Likewise, Participant 6 reported that, “It is [the need for services acts as a barrier]” and being “understaffed” plays a big part of it. Similarly, when Participant 7 was asked whether she believes the need for services acts as a barrier, her response was, “Yes. Yeah,” and added:

As I said, it's more once they put you in that box of this is what's wrong with you, it's harder for them to revisit it. So, they'll just tell you, "Go to the plan that we gave you years before, or deal with that." Or they just put your medication on refill, refill, refill without saying, "Hey, it's four years later. A child's body grows

at a different rate as an adult, so let's revisit it. Let's not just put it on refill, let's retest, let's revisit, let's revise." They put you on autopilot, and just say, "If it worked when you were three, it's going to work when you're seven." I don't think that makes sense.

***Theme 6: Communicating to and Educating African American Parents About Childhood Asthma and How to Access Services and Resources is Needed***

Six out of the 10 interviewed participants contributed to this theme. The theme suggests that according to the participants, educating African American parents and communicating to them about asthma in children is needed. This would include providing information on how parents with asthmatic children can access the necessary services and resources to encourage the parents to use primary care services in the management of childhood obesity. Participant 2 talked about the need to organize forums in the community to educate community members about asthma and how and where they can find resources. She spoke about, "providing resources like community centers that create forums where we can have these discussions about asthma and certain medical conditions. How to go about accessing resources in the community that's readily available." She added:

Also, just reaching out to pediatricians so that they could come into the community to go into more detail about some of the services that are available. If you're not insured, how to get certain services so that you could get some of the medical benefits that your child or your family may need. Therefore, I think communication is very significant in the community.

Likewise, Participant 5 talked about educating parents about childhood diseases such as asthma when they deliver their child. Participant 5 stated the following:

So, asthma was new for me with my son. And I kind of wish that something that is talked about, maybe at the time a child is born, to talk about what childhood diseases that could severely impact a child life...And I think it would help parents. Because when your child is sick, congested, you might just [be] thinking it's a common cold and it could be something more serious. I just think that if we inform parents, if parents are informed ahead of time, then they better know how to handle the situation.

Participant 9 also spoke about the need for education about asthma, particularly among African American parents due to “the lack of knowledge among the patients, and in general, the lack of knowledge in the African American community towards the healthcare.” Speaking about communication, Participant 10 mentioned that “if you have a line of communication open and you tell them like, this is what you want, I think it is pretty good. It's not a bad thing.”

***Theme 7: Having More Specialists, Including Black Doctors, Diagnose Children Rather Than Using General Pediatricians is Needed***

Seven interview participants contributed to this theme. The contributing participants indicated that there is a need to have more specialists, including African American specialists, diagnose children instead of using regular pediatricians to encourage the parents to use primary care services in the management of childhood asthma. Participant 1 talked about the need for more respiratory illness specialists, stating

that:

So, we've been taking her to the pediatrician. I haven't seen them, I know they have pulmonary specialists, but I haven't seen many that take care of pediatric patients. So I think that might be an issue. They should have more specialists for respiratory illnesses, more specialty, not just pediatrics.

Participant 2 stated, "I believe that we are in a good space with our pediatrician. However, it would be awesome to have a pediatrician who is knowledgeable in my community." Participant 8 mentioned the following:

Have it like a specialist. Having a specialist come in and diagnose rather than just regular pediatrician to come in and say, "Hey, your child has asthma." How do you know my child has asthma and not something else? Right, and then you were giving my child this asthma medication and I'm wondering would these asthma medications cause my son to have asthma if he does not already have asthma?

Participant 9 noted, "They need more African American doctors who are specialists in asthma care. They need more specialists in general, not just a general practitioner. They need specialists for children, as well." She added:

Because, if they had specialists who specialize in asthma care, then you know if your child has asthma, it is asthma, and not some other underlying thing, not something else. Maybe the shortness of breath could be allergies and they can't breathe. Just as you had mentioned earlier, that with your allergies, it's hard to breathe sometimes. So, what if it was allergies and not asthma? May need to do more in-depth testing rather than just using the stethoscope and listen to you

breathe.

### **Summary**

The problem addressed in this study is that there is a lack of parents' and caregivers' perceptions regarding lack of primary care services among African American children from low socioeconomic status families based on perceived access to primary care services. The purpose of this phenomenological study was to explore access and use of primary health care services among African American children with asthma that are from low socioeconomic status families living in urban areas. I sought to address three research questions, which have been answered adequately. Interview data from 10 African American parents and guardians of children aged below 18 years with asthma were analyzed through thematic analysis. I followed Braun and Clarke's (2006) six-step thematic analysis method. The six steps include (a) familiarization with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) reporting. NVivo 12 software aided in the analysis process. The first research question was, "How do parents and guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?" The findings reveal that according to the participants, symptoms of serious illness in the child encouraged the parents to use primary care service, which was the first theme. Some of these symptoms included wheezing and breathing difficulty, high temperature, high heart rate, incessant coughing, and asthma attacks.

The following was the second research question: “How do parents/guardians of African American children with asthma living in urban areas describe the factors that act as a barrier to primary care service use in the management of childhood asthma?” The answer is that the factors that act as a barrier included the difficulty in finding easily accessible and reliable medical facility or pediatrician, which was the second theme; high cost of treatment and lack of transportation to go for appointment, which was theme three; as well as racial and ethnic discrimination, childhood asthma in African American children not taken seriously by doctors, and a lack of follow-up by doctors, which was the fourth theme.

Lastly, the third research question was, “How do parents and guardians of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma?” The findings, as shown by the fifth theme, indicate that according to the parents, the need for services acts as a barrier to primary care service use. The participants also described the need to communicate to and educate African American parents about childhood asthma and how to access the necessary resources and services, which was the sixth theme. Theme seven demonstrated that more specialists, particularly African American doctors, are needed to diagnose children rather than using general pediatricians. Chapter 5 contains the research summary, implications, conclusions, and recommendations of the whole study based on these findings.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

The purpose of the study was to explore the perception of African American parents and guardians of children with asthma and their views on access to primary care. I explored the role of these factors in the health service use of parents as related to the care and treatment of their child's asthma. The existing body of research has primarily centered on scrutinizing national disparities, as evidenced by Volerman et al. (2019). However, a comprehensive investigation into the perceptions of key stakeholders, specifically parents and caregivers, is absent from the academic discourse.

This study aimed not only to bridge this gap in the literature but also to provide valuable insights that have the potential to inform subsequent research, guide policy formulation, and facilitate the development of interventions. The outcomes of this study can be instrumental in advancing comprehension of the dynamics surrounding access to and utilization of primary care services from the vantage point of parents and guardians. The significance of this research is thereby underscored by its potential to serve as a cornerstone for policymaking and intervention strategies to enhance access to and utilization of primary care services, ultimately fostering improved health outcomes for African American children with asthma. By shedding light on the perspectives of parents and guardians, this study can pave the way for more equitable healthcare solutions that can alleviate the burden of asthma within this vulnerable demographic.

The analysis of the data from the interviews revealed a total of seven themes that assisted in addressing the three research questions. The first research question was, "How



do parents and guardians of African American children with asthma living in urban areas describe the factors that encourage primary care service use in the management of childhood asthma?” This research question was addressed by Theme 1: Symptoms of serious illness in children encouraged parents to use primary care services. According to the participants’ accounts, indications of a severe illness in their child motivated parents to engage in primary care services. This phenomenon emerged as the primary theme, with illustrative symptoms encompassing wheezing, respiratory distress, elevated body temperature, accelerated heart rate, persistent coughing, and episodes of asthma attacks.

The second research question was, “How do parents and guardians of African American children with asthma living in urban areas describe the factors that act as a barrier to primary care service use in the management of childhood asthma?” Three themes addressed this research question, which included Theme 2: Difficulty in finding easily accessible and reliable medical facilities or pediatricians, Theme 3: High cost of treatment and lack of transportation, and Theme 4: Racial and ethnic discrimination, childhood asthma in Black children not taken seriously by doctors, and lack of follow-up. The responses from the participants pointed to various factors that served as impediments. These included challenges in locating readily accessible and dependable medical facilities or pediatricians, forming the second prominent theme. Additionally, financial constraints related to treatment expenses and limitations in transportation for scheduled appointments constituted the third theme. Furthermore, racial and ethnic discrimination, healthcare providers’ lack of seriousness of childhood asthma in African

American children, and deficient post appointment follow-up comprised the fourth thematic cluster.

The third research question was, “How do parents and guardians of African American children with asthma living in urban areas describe the need for services as a factor that encourages or acts as a barrier to primary care service use in the management of childhood asthma?” Three themes addressed this research question, which included Theme 5: The need for services acts as a barrier to primary care service use, Theme 6: Communicating to and educating African American parents about childhood asthma and how to access services and resources, and Theme 7: Have more specialists, including Black doctors, diagnose children rather than using general pediatricians. The results, as demonstrated by the fifth theme, suggested that, according to parents, the demand for services presents an obstacle to the utilization of primary care services. Additionally, participants articulated the necessity of conveying information to and educating African American parents regarding childhood asthma and the means to access essential resources and services, forming the basis of the sixth theme. The seventh theme underscored the requirement for more specialists, particularly African American physicians, to diagnose children instead of relying solely on general pediatricians.

### **Interpretation of the Findings**

The findings of this study align with the body of literature addressing disparities, unequal treatment, access issues, and health outcomes concerning African American children in the United States. Theme 3, which delved into the challenges related to the high cost of treatment and transportation, corroborates the research of Fiscella and

Sanders (2016), who concluded that disparities in healthcare can be attributed to patients' limited income, hindering their ability to afford services and medications. Caldwell et al. (2016) also corroborates Theme 3 by emphasizing that healthcare disparities disproportionately affect individuals of lower socioeconomic status. Caraballo et al. observed that Hispanic and Black individuals encountered substantial obstacles in accessing healthcare services primarily due to a lack of insurance coverage and the financial burden of medical expenses, echoing the findings of this current study. Furthermore, other literature highlights the issue of readmission rates among African American children in hospitals due to asthma, which starkly reflects socioeconomic disparities (Philips et al., 2020; Ruffner et al., 2018). These collective studies underscore that these disparities are rooted in social inequalities that, statistically, are closely linked with unfavorable health outcomes in African American children.

Theme 4, encompassing racial and ethnic discrimination, the perception of doctors not taking childhood asthma in Black children seriously, and a lack of follow-up, was substantiated in the existing literature. Trivedi et al. (2018) observed that when family-pediatrician relationships improved, comorbidities and asthma control showed a positive trend. This underscores the potential link between Theme 4 and the quality of interactions between families and their pediatricians. Kim and Pirritano (2019) provided additional support for Theme 4 by revealing that African American children were disproportionately more likely to seek emergency room care for asthma compared to their White counterparts, with a staggering ratio of 70:1. These same parents frequently reported either lacking a consistent pediatrician relationship or encountering

unsatisfactory outcomes in emergency room settings, which was also presented in Theme 2, as parents voiced difficulty in finding easily accessible and reliable medical facilities or pediatricians. The literature underscores that healthcare disparities are further compounded when subpar pediatrician care or relationships are in play, a dimension accentuated in Theme 4.

Theme 6, which underscores the importance of communicating with and educating African American parents about childhood asthma and how to access vital services and resources, corroborated the findings of various scholars. Researchers like Curtis et al. (2012) elucidated health literacy's role in asthma disparities. Additionally, Young and Berry (2017) conducted a study revealing that the care, education, and resources provided during the initial emergency visits for asthma-related symptoms significantly influenced subsequent visits. The lack of follow-up, which constitutes a significant barrier to accessing services expressed by the participants in this current study, was also brought to light in Young and Berry's study, further validating Theme 4's findings.

MacDonnell et al. (2018) explored diverse strategies for delivering interventions to parents of African American children with asthma, advocating for using technology and community collaboration to mitigate childhood asthma. Technological interventions, such as text messages emphasizing medication adherence and motivational interviewing, were proposed to ensure proper education. The results of the researchers' study revealed that after 3 months, African American children experienced decreased asthma symptoms due to improved medication use and access to educational resources, leading to reduced

hospital and clinic visits. The findings of the study by MacDonnell et al. highlighted the importance of education, as was revealed in Theme 6. Moreover, Theme 6 confirms the findings of other scholars, including Bryant-Stephens et al. (2016) and Patel et al. (2019), who underscored the significance of linking children and parents with resources to ensure medication adherence and to provide education on managing asthma exacerbations, thereby mitigating adverse asthma outcomes among African American children.

Theme 7 underscored the importance, as perceived by parents, of having specialized medical professionals, including Black doctors, involved in diagnosing children instead of relying solely on general pediatricians. This theme aligns with a body of research on physician bias that helps elucidate its significance. Researchers such as Volerman et al. (2017) and Volerman et al. (2019) shed light on the etiological roots of healthcare disparities, partially attributing them to biases held by physicians when treating children of color. Some scholars propose culturally competent care as a response to address these biases and enhance patient-physician interactions. Further supporting this perspective, Stingone and Claudio (2006) and Szeffler et al. (2019) also concluded that physicians tend to less frequently prescribe inhalers for African American children living in urban areas. This phenomenon may be attributed to physicians' lack of cultural competence, highlighting the need for specialized care providers to more effectively navigate the unique healthcare needs and contexts of diverse patient populations.

Two themes, Theme 1 and Theme 5, were not supported by any reviewed literature but were significant findings of this study. Identifying that symptoms of serious illness act as a motivator for parents to seek primary care services is essential because it

highlights a potential barrier. This finding suggests that some parents may delay or avoid seeking care until their child's condition becomes severe, which can negatively affect the child's health. This finding contributes to a more comprehensive understanding of parents' experiences and decision-making processes in urban areas when it comes to accessing primary care services for their children with asthma. Theme 1 provides crucial information within the broader context of the study and helps shed light on one of the factors influencing access to care for African American children with asthma in urban areas. Recognizing that the need for services is a barrier to accessing primary care services suggests that this population may have unmet healthcare needs. Parents or caregivers may want to access healthcare services for their children but face challenges, potentially due to a lack of availability, affordability, or other systemic issues.

### **Interpretation of the Findings With the Theoretical Framework**

The seven themes derived from the study relate to Andersen's (1995) behavioral model for health service use (Andersen, 1995). Theme 1, "Symptoms of serious illness in a child encourage parents to use primary care services," corresponds to Andersen's model's predisposing factors. Specifically, the theme relates to the perceived need for care influenced by symptoms, one of the critical predisposing factors affecting healthcare utilization (Andersen, 1995). Theme 2, "Difficulty finding an easily accessible and reliable medical facility or pediatrician," aligns with the enabling factors in the model. This theme highlights the challenges of accessing healthcare services, including the availability and reliability of medical facilities or providers. Theme 3, "The high cost of treatment and lack of transportation," also falls under enabling factors and emphasizes

financial barriers (high cost of treatment) and logistical barriers (lack of transportation) that hinder access to care. Theme 4, “Racial and ethnic discrimination, childhood asthma in Black children not taken seriously by doctors, and lack of follow-up,” underscore elements of predisposing factors (racial and ethnic discrimination influencing perceptions) and enabling factors (lack of follow-up and potential bias affecting access to care) within Andersen’s model.

Theme 5, “The need for services acts as a barrier to primary care service use,” relates directly to the perceived need component of the model and emphasizes how individuals' perception of their healthcare needs can either facilitate or impede service utilization. Theme 6, “Communicating to and educating African American parents about childhood asthma and how to access services and resources,” aligns with the external environment aspect of Andersen’s (1995) model and highlights the importance of external factors, such as health education and resources, in shaping individuals' healthcare-seeking behaviors. Lastly, Theme 7, “Having more specialists, including Black doctors, diagnose children rather than using general pediatricians,” relates to the provider factors within the model and underscores the significance of the type and characteristics of healthcare providers in influencing healthcare utilization, focusing on the need for specialists. The themes revealed from the data collected provide valuable insights into how various components of Andersen’s behavioral model for health service use interplay influence primary care utilization among African American children with asthma in urban areas. These themes help elucidate the complex factors affecting healthcare access and utilization within this population.

### **Limitations of the Study**

Several trustworthiness limitations emerged during this study, with researcher bias being notable. A rigorous approach involving bracketing was employed to address this, allowing the researchers to acknowledge and set aside any preconceived notions or biases that might have influenced the study's outcomes. However, it is crucial to recognize that some subjectivity may still exist despite these efforts. Another limitation pertinent to this study was the issue of transferability. It is essential to acknowledge that the findings generated are specific to the participants involved in this study, who were African American parents and guardians of children with asthma residing in low socioeconomic urban areas. Consequently, the findings should not be indiscriminately generalized to the entire African American children with asthma population. Nevertheless, the thematic analysis employed in this research unveiled valuable data that can serve as a foundation for future researchers. These insights provided a robust starting point for exploring the potential application of these findings to a broader and more diverse population, with the understanding that variations may exist in different contexts or demographic groups. This study, therefore, provided the groundwork for further investigations aiming to extend the relevance and reach of these research outcomes.

### **Recommendations**

According to the study's findings, I offer recommendations for future research that are supported by the literature. Future research could investigate the effectiveness of cultural competency training for healthcare providers working with African American children with asthma. These future studies could assess how enhanced cultural sensitivity



impacts patient-provider interactions and healthcare access. McQuaid (2018) noted that models for reducing disparities should include providing culturally informed models for intervention. Culturally sensitive care has been highlighted in the literature as significant to providing adequate healthcare (Fiscella & Sanders, 2016; Purnell et al., 2016). Harris et al. (2019) argued for collaborative initiatives to provide culturally competent care.

Future research could also examine the feasibility and impact of technology-based interventions, such as telehealth, mobile apps, or remote monitoring, in improving access to primary care services for urban African American children with asthma. This study could complement this current study as well as the research of MacDonnell et al. (2018), who conducted a pilot study to assess the usability of interventions with technology to reduce childhood asthma in African American children. One of the findings of this study was that communicating to and educating African American parents about childhood asthma and how to access services and resources was significant. Curtis et al. (2012) reported that health literacy for African Americans was the lowest out of White and Hispanic groups. Future research could develop and assess interventions that enhance health literacy among parents and guardians of African American children with asthma. The focus should be improving their understanding of asthma management and navigating healthcare services.

Future research could investigate effective strategies for improving communication between healthcare providers and African American families. These studies could involve exploring patient-centered communication techniques and their impact on healthcare utilization. Previous literature has revealed that parents who

reported poor access, trust, and communication were more likely to report poor asthma outcomes and repeated visits to the emergency room (Janevic et al., 2016). The findings by Janevic et al. (2017) highlight the importance of communication in healthcare outcomes. Future research could also take a different approach and explore how intersectionality may affect healthcare outcomes for African American children with asthma. The studies could consider intersectionality by exploring how factors like socioeconomic status, gender, and geographic location intersect with race to influence access to care. The approach can provide a more nuanced understanding of healthcare disparities. These recommendations aim to expand the understanding of the complex factors affecting access to primary care services for African American children with asthma in urban areas and contribute to developing effective interventions and policies.

### **Implications**

The study's findings have the potential for positive social change in several areas. Understanding the factors that encourage primary care service use and identifying barriers can inform interventions and policies to improve healthcare access for African American children with asthma in urban areas. This information can lead to better health outcomes and reduced healthcare disparities. The findings of this study could also create positive social change by helping to reduce health inequities. Addressing the themes in this study related to racial and ethnic discrimination, the lack of follow-up, and the need for services can contribute to helping to reduce health inequities. By promoting culturally competent care and addressing bias, healthcare systems can become more equitable.

Theme 6, which emphasized the importance of communicating and educating parents, suggests the need for health education programs. These programs can empower parents and guardians with the knowledge and skills to manage childhood asthma effectively, ultimately improving children's health. The findings related to racial and ethnic discrimination and the need for specialists highlight the importance of healthcare provider training. These findings have implications for medical professionals and the need for cultural competency training to provide more equitable care. Additionally, increasing the number of specialists, including Black doctors, can enhance healthcare options for this population and create positive social change. Engaging the local community, as suggested in Theme 6, can lead to positive social change through community-driven solutions. Community organizations and healthcare providers can work together to address the unique challenges faced by African American children with asthma and their families in urban areas.

The findings of this study highlight critical insights that resonate with various components of Andersen's behavioral model for health service use. The findings provide a nuanced understanding of how a variety of factors, including predisposing elements, enabling circumstances, need considerations, external environmental influences, and healthcare system characteristics, collectively shape the patterns of primary care service utilization among African American children grappling with asthma in urban settings. The perception of illness severity, as highlighted in the study's themes, plays a pivotal role in motivating parents and guardians to seek primary care services for their children. This underscores the significance of predisposing factors in driving healthcare-seeking

behaviors among this population. The enabling factors identified in the study, such as the challenges in locating easily accessible and affordable healthcare facilities, shed light on the logistical and financial barriers that impede healthcare access. These findings underscore the importance of addressing enabling factors to enhance healthcare utilization rates among African American children with asthma.

The study highlighted the intricate interplay of need factors within this demographic. The themes related to racial discrimination, the need for specialized care, and the importance of follow-up care underscore the unmet healthcare needs experienced by African American children with asthma. Recognizing these unmet needs is a crucial step toward addressing healthcare access and outcomes disparities. The external environment, including community resources and health education initiatives, emerges as a pivotal influencer of healthcare utilization. The study underscored the role of community engagement and health education programs in empowering parents and guardians to navigate the healthcare system more effectively. The healthcare system is central in utilizing primary care services, as indicated by the preference for specialized care. This theme underscores the significance of healthcare provider characteristics and the need for strategies that augment the availability of specialized care tailored to the specific requirements of this population. This study significantly enriched the comprehension of healthcare utilization within the context of African American children with asthma residing in urban areas. Identifying barriers and facilitators, this study's findings contribute substantially to a more comprehensive and nuanced understanding of the intricacies surrounding access to primary care services among this demographic.

Based on the findings of this study and the seven themes revealed, practice recommendations can be made. One recommendation that can be made is that healthcare providers should undergo cultural competency training to understand better the unique needs and experiences of African American children with asthma and their families. This training can help reduce racial and ethnic discrimination, improve patient-provider relationships, and enhance trust in the healthcare system. Health education initiatives are another recommendation. Implementing health education programs targeted at parents and guardians of African American children with asthma would be beneficial. These programs could focus on improving health literacy, including asthma symptom recognition, medication management, and the importance of regular primary care visits. Participants in this study noted the costs associated with treatment as a barrier to healthcare. Advocating for policies and programs that make healthcare services, especially asthma management, more affordable and accessible to families in low socioeconomic urban areas would be beneficial. This can involve expanding Medicaid coverage, increasing subsidies for asthma medications, and offering transportation assistance for medical appointments.

Improving communication within the healthcare provider community must take precedence, particularly in facilitating effective interactions with parents and guardians. Encouraging an environment of open dialogue, active listening, and collaborative decision making concerning asthma management plans can significantly mitigate healthcare disparities within this demographic. Furthermore, healthcare providers should place a premium on delivering explicit follow-up instructions and streamlining

appointment scheduling procedures. Addressing one of the study's prominent themes, the importance of having a higher number of specialists, including Black physicians, involved in diagnosing children rather than relying solely on general pediatricians, underscores the need for strategies that enhance the availability of specialized asthma management care tailored to the unique requirements of this population. This initiative should be complemented by efforts to increase the representation of Black doctors in the healthcare workforce.

### **Conclusion**

In conclusion, this study shed light on the multifaceted challenges and opportunities surrounding access to primary care services for African American children with asthma living in urban areas. Through rigorous research, seven distinct themes were revealed that influence healthcare utilization within this demographic. These themes span from recognizing severe symptoms as an incentive for seeking care to systemic barriers, such as racial discrimination and the need for specialized healthcare providers.

The implications of these findings are profound. They call for a comprehensive approach to addressing healthcare disparities by focusing on cultural competence, health education, community engagement, and policy changes. By embracing these recommendations, healthcare providers, policymakers, and community stakeholders can collaborate to enhance the healthcare experience for African American children with asthma and their families. Ultimately, the goal is to foster equitable access to primary care services, improve health outcomes, and empower these children to lead healthier, more fulfilling lives.

It is also essential to recognize that this study represents a significant step towards a more equitable healthcare system. However, the journey toward healthcare equity is ongoing and requires continued commitment, research, and collaborative efforts. By building upon these findings and fostering positive social change, communities can work towards a future where all children, regardless of their racial or socioeconomic backgrounds, have equal access to high-quality healthcare, ensuring a brighter and healthier tomorrow for future generations.

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