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Parental Perception of Physician Cultural Sensitivity and Adherence to Asthma Treatment

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2019

Abstract

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Narue Jaynelle Wright-Jegede

MPH, Walden University, 2011

BSW, Georgia State University, 2009

Submitted in Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health, Community Health

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Abstract

In the United States, asthma remains a major cause of frequent urgent care visits, hospitalizations, and preventable deaths among children. Nationwide, the chronic disease continues to fall disproportionately on minorities, mostly residing in urban localities. When a child is diagnosed with asthma, the parents are typically tasked with managing the child's condition. Establishing a collaborative partnership between parents and their child's primary physician is significant for improving asthma self-management among youth. Using the theory of reasoned action as a theoretical framework, this mixed-methods study examined whether a relationship exists between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence. Phenomenology was used to explore the real-world experiences of study five ethnic minority parents and one guardian grandparent of asthmatic children aged 0–17 who shared similar perspectives. Descriptive surveys were used in combination with in-depth interviews to develop an understanding of parental perceptions on physician cultural sensitivity related to asthma treatment adherence. Overall, 108 minority parents were eligible to complete the survey. The study findings revealed that parents who feel recognized, valued, and respected by their child's physician were more likely to be engaged in shared decision-making about treatment. The findings support the potential for positive social change in terms of modifying the health care behaviors of minority parents with asthmatic children, increasing parental self-efficacy in managing their child's asthma, and improving the cultural sensitivity of physicians who serve the needs of diverse minority families.

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Dedication

This dissertation is dedicated to my two sons, Josiah Ajani and Jaree Zavan. Thank you for your constant love and encouragement throughout this laborious journey. You boys are my priceless gifts from God and the love I hold for you is immeasurable. As you grow and mature, continue to empower yourselves. Trust in your abilities to achieve the upmost. Stand on faith and be fearless but honest in your quest for greatness. Continue to embrace life and be confident as you embark on a future filled with endless possibilities and opportunities. I love you both!

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Chapter 1: Introduction to the Study

Introduction

In the United States, asthma is the most common chronic childhood illness, affecting 6.2 million people under the age of 18 (Centers for Disease Control and Prevention [CDC], 2017a). The respiratory condition remains a major cause of emergency room (ER) visits, asthma-related hospitalizations, school absenteeism, lost caregiver workdays, and preventable death (CDC, 2013; Wing, Gjelsvik, Nocera, & McQuaid, 2015). In addition to the impact of asthma on susceptible youth, the disease places a substantial burden on the child's primary caregiver, the U.S. health care system, and on society (Johnson, Chambers, & Dexheimer, 2016; von Mutius, 2000). Each year, nearly 4 million children experience acute exacerbations (asthma attacks or acute asthma), accounting for 14 million missed school days, 13 million outpatient physician visits, and more than 1.8 million reported ER visits (CDC, 2013, 2017; Herman, Garbe, & McGeehin, 2011). Asthma exacerbations are acute or subacute episodes characterized by the progressive worsening of respiratory symptoms (i.e., shortness of breath, intense cough, wheezing, chest tightness) and the deterioration of normal lung functionality (Global Initiative for Asthma, 2016; Suruki, Daugherty, Boudiaf, & Albers, 2017).

Despite great strides to increase patient adherence to asthma treatment regimens, trends in asthma prevalence, morbidity, and severity are intensifying, particularly among poor minority children in urban environments (Valet et al., 2011). However, the prevalence of asthma is more prevalent in children (a) of African American and Latino descent, (b) living below the federal poverty threshold, and (c) residing in the

Northeastern region of the United States (Herman et al., 2011). When compared to non-Latino Caucasian children, the prevalence of asthma is higher in children from African American and Hispanic groups (Koinis-Mitchell et al., 2010). Yet, from 2008–2010, asthma prevalence among multiple race, American Indian and Alaska Native individuals increased significantly (American Lung Association, 2012). Trends in the prevalence and morbidity of asthma among these ethnic groups have increased the rate of recurrent visits by patients to physician offices, hospital outpatient departments, and ERs (American Lung Association, 2012). In the past, limited research focused on providing several explanations for the differences in health disparities among minority groups, including identifying factors related to (a) family asthma management routines (McQuaid, Walders, Kopel, Fritz, & Klinnert, 2005); (b) cultural factors impacting asthma management (Koinis-Mitchell et al., 2008); (c) accessibility to quality asthma care (Ortega et al., 2002); (d) medication adherence (Rand, 2002); (e) asthma severity variance (Wamboldt et al., 2002); and (f) community violence exposure on asthma (Wright et al., 2004). Findings from these studies presented valuable information on asthma-specific influences that contributed to the disparities in family management behaviors, asthma morbidity, and pediatric asthma outcomes. However, Koinis-Mitchell et al. (2010) denoted that additional research should consider the life experiences of different ethnic-minority groups in the United States, more specifically in areas relating to culture, disease management, and other risk factors that could increase asthma morbidity for underserved families.

Managing a child's chronic condition effectively can present considerable challenges and social stressors for many parents (Compas, Jaser, Dunn, & Rodriguez, 2012). Helping asthmatic children lead a normal and active life can become difficult for parents with limited resources, as they may struggle to implement treatment recommendations on a continual basis (Kopel, Phipatanakul, & Gaffin, 2014). When asthma is poorly controlled in children, parents are constantly concerned about (a) acute episodes, (b) monitoring asthma symptoms correctly, (c) the daily regimen of dispensing prescribed medications, (d) coordinating quality care with multiple physicians, and (e) learning how to manage the illness correctly (Koinis-Mitchell et al., 2010; National Institutes of Health, 2002). For many minority families in low-income settings, achieving effective asthma control bears a heavier burden than in Caucasian households or more affluent counterparts (Kopel et al., 2014; Scott et al., 2011). Asthmatic children of lower socioeconomic status have the least access to, but the greatest need for, frequent contact with a culturally sensitive primary care physician (Bellin et al., 2017; Canino, McQuaid, & Rand, 2009; Holsey, 2013; Seeleman, Stronks, van Aalderen, & Bot, 2012). Across different cultures, asthmatic children who live in poor urban environments are particularly vulnerable for a higher use of rescue medication, health care utilization, and severe or near-fatal asthma attacks (Cohen, Canino, Bird, & Celedón, 2008; Kopel et al., 2014). As Sleath et al. (2011) asserted, parents are valuable partners in the care of their child's condition and, thus, should share in making decisions during pediatric visits to minimize asthma symptoms. Brown, Gallagher, Fowler, and Wales (2010) posited that parents must be equipped with tools to handle potential asthma complications or life-

threatening situations. To improve asthma control for children, parents must work in partnership with physicians to (a) understand the complexity of asthma, (b) assist in developing a customized treatment plan, (c) monitor sudden changes in asthma symptoms or lung functionality, and (d) help guide their child toward self-managing responsibilities (Brown et al., 2010). However, to build a mutual relationship of trust between physician, parent, and children, pediatricians who treat minority children in urban regions should be sensitive to their cultural heritage, ethnic identity, economic hardships, psychodynamic issues, and variations in family structure (Burgess, Warren, Phelan, Dovidio, & van Ryn, 2010; Koinis-Mitchell et al., 2010).

> The American College of Physicians (2010) cited several key findings and recommendations in an updated report on racial and ethnic disparities in healthcare:
>
> Physicians and other health care professionals must be sensitive to cultural diversity among patients and recognize that preconceived perceptions of minority patients may play a role in their treatment and contribute to disparities in health care among racial and ethnic minorities. Such initiatives as cultural competency training should be incorporated into medical school curricula to improve cultural awareness and sensitivity. (p.1)

Background

Racial and Ethnic Diversity in the United States

Since 1965, the face of North America has changed dramatically; the nation has become more racially and ethnically diverse (Pew Research Center, 2016; U.S. Census

Bureau, 2012). In recent years, the arrival of new immigrants from Asia, Latin America, and other foreign nations has added a large amount of genetic variation, phenotypic differences, and cultural diversity to the United States (Bryc, Durand, Macpherson, Reich, & Mountain, 2015; Perez & Hirschman, 2009). According to Colby and Ortman (2015), the U.S. population is expected to rise from 319 million people to 417 million by 2060. In 2012, ethnic-minority groups represented nearly 37% of the United States' population; however, by 2060—the total minority population is projected to double from 116.2 million to 241.3 million (U.S. Census Bureau, 2012). Over the next few decades, population projections suggest a significant increase among individuals who identify as (a) Black or African American; (b) Hispanic; (c) Asian; (d) American Indian or Alaska Native; (e) Native Hawaiian, other Pacific Islander, or some other race (U.S. Census Bureau, 2012). It is estimated that by 2060, ethnic minorities will become the majority in the United States, representing over 57% of the total population (U.S. Census Bureau, 2012). Demographic projections by Colby and Ortman (2015) indicate that over half of all Americans will belong to one or more than one minority group by 2044, and over half of all children living in the United States will be part of a minority group by 2020. These projections illustrate the need to understand the health status of all minority populations and why culturally sensitive health care is necessary to identify and reduce persistent racial-ethnic health disparities (CDC, 2011; Truong, Paradies, & Priest, 2014).

Cultural Sensitivity in the Physician-Patient Relationship

The constant change in U.S. demographics has created a richness of ethnic diversity, indicating the need to promote new levels of cultural sensitivity and flexibility

during medical encounters with patients (Seibert, Stridh-Igo, & Zimmerman, 2002; Tucker, Marsiske, Rice, Jones, & Herman, 2011). Research has indicated a positive relationship between physicians' respect for cultural differences and high-quality health care for ethnically diverse populations (Mullins, Blatt, Gbarayor, Yang, & Baquet, 2005; Saha, Beach, & Cooper, 2008; Seibert et al., 2002). According to Paez (2009), building a strong physician-patient relationship is fundamental when delivering efficient health services to patients, particularly in circumstances where managing cross-cultural differences could lead to miscommunication, misconceptions, and dissension between all parties involved. However, physicians who employ their interpersonal communication skills effectively can gather relevant information from patients in a meaningful way that allows them to (a) conduct a thorough physical exam that facilitates an accurate diagnosis, (b) offer medical advice with tailored treatment recommendations, and (c) build a trusting and caring relationship with each patient (Frey, Fagnano, & Halterman, 2016; Ha & Longnecker, 2010). Ha and Longnecker (2010) stated that interpersonal communication skills are fundamental in clinical practice, particularly when (a) improving patient satisfaction, (b) achieving better health outcomes for patients, and (c) ensuring the equitable delivery of quality health care. Banerjee and Sanyal (2012) further contextualized that establishing concordance, communication, trust, and enablement in patient-physician relationships could reduce trends in medical malpractice litigations.

Over the last few decades, the dynamics of developing a positive relationship between physician and patient has changed considerably (Banerjee & Sanyal, 2012; Goold & Lipkin, 1999; Ha & Longnecker, 2010; Levinson & Roter, 1993). Emanuel and

Emanuel (1992) discussed society's desire to redefine the physician-patient relationship and proposed four models—paternalistic, informative, interpretive, and deliberative—that empowered both physician and patient to become equal contributors in treatment decisions. Before new dimensions of the physician-patient relationship were constructed, key decisions were made by physicians with limited input from patients or their families (Hobbs, 2015; Kaba & Sooriakumaran, 2007). Often, physicians were selective in sharing pertinent health information with their patients and only used their skills to (a) recommend treatments to restore health, (b) prescribe medications that minimized pain, and (c) encourage patient consent to support physician decisions (Kaba & Sooriakumaran, 2007; Zahedi, 2011). Zahedi (2011) asserted that the interpersonal expectations in the patient-physician relationship calls for (a) telling patients the absolute truth about their health, (b) greater patient autonomy in medical decision making, and (c) curbing physician paternalism to allow full patient participation.

Traditionally, features of the physician-patient relationship focused on the patient's involvement in health care decision making with less emphasis placed on the patient's experiences within the context of family, community, and culture (Mitnick, Leffler, Hood, & American College of Physicians, Ethics, Professionalism, and Human Rights Committee, 2011). According to Mitnick et al. (2011), key principles in contemporary bioethics relating to patient autonomy, consent, beneficence, nonmaleficence, justice, and confidentiality have supported the patient-physician relationship model. However, due to factors driving transformations in health care

policies and practices, the need to include a more family-centered approach has been acknowledged (Mitnick et al., 2011).

The Role of Parent/Family Caregivers in Managing Chronic Illness

When a patient is diagnosed with an illness, family caregivers require timely information and access to sustainable resources that can support their role at full capacity (Wolff & Roter, 2011). There seems to be little disagreement that families are significant to a patient's well-being and quality of life (Wolff & Roter, 2011). As with any illness affecting a child, parents may view themselves as collaborative partners for making health decisions about treatment or care, particularly when the child's disease progresses and/or the child requires extensive care (Mitnick et al., 2011; Smith, Cheater, & Bekker, 2015; Wolff & Roter, 2011). Further research has indicated that physicians impact caregiving experiences by (a) displaying positive attitudes toward them, (b) recognizing their value in the patient's continued health and health care, (c) responding compassionately to the caregivers' physical, mental, emotional, and spiritual well-being (Mitnick et al., 2011).

Despite the salience of family participation in medical decision making, there is limited knowledge of which behaviors adopted by caregivers are most beneficial to improving health outcomes (Mitnick et al., 2011). In the United States, parents and/or other family caregivers play a major part in providing daily care for individuals with chronic conditions (Ghriwati, Winter, & Everhart, 2017; Mitnick et al., 2011). The National Alliance for Caregiving (2009) documented that approximately 16.8 million unpaid family caregivers help a child under the age of 18 with managing their illness and

treatment recommendations on a daily basis. In the report, parents and/or family caregivers cited asthma, autism, intellectual disabilities, and mental disorders as the top health problems a child recipient requires the most care by an adult (National Alliance for Caregiving, 2009).

Cultural Differences and Language Barriers in Equitable Health Care

As the United States continues to become more diverse, physicians must accommodate the different cultural, ethnic, and spiritual values of ethnic minority families (Saha, Beach, & Cooper, 2008; Seibert et al., 2002). Seibert et al. (2002) posited that a person's ethnic or cultural identity is manifested in their ancestral roots, tribal tides, communal associations, and personal ideologies. Culture determines how people perceive health, illness, and death (Mullins et al., 2005). It determines the causation of ill health and how people engage in health practices. When physicians appear insensitive to cultural diversity or impassive to reducing cultural barriers that undermine recommendations for medical treatment, their actions could affect patient experiences and quality of care (Anderson, Scrimshaw, Fullilove, Fielding, & Normand, 2003; Mullins et al., 2005; Tucker et al., 2011). Disparities in health are compounded by communication differences among different racial and ethnic groups. As Kuehl (2011) explained, a person's ability to use language and communicate proficiently is at the core of building a good physician–patient relationship.

When cultural differences and language barriers between physicians and their minority patients occur, these complex interactions can undermine the exchange of relevant health information and equal access to health promotion services (Kuehl, 2011;

Mullins et al., 2005). For example, older Filipino migrants and Australian Chinese immigrants with limited English proficiency reported difficulty in communicating with their physicians about their symptoms and the use of non-Western medicine (Eh, McGill, Wong, & Krass, 2016; Maneze et al., 2016). Other minority patients with limited English skills expressed concern about their ability to explain persistent symptoms correctly and felt apprehensive about asking questions because it suggested a level of distrust in the physician (Jih, Vittinghoff, & Fernandez, 2015). Betancourt, Green, Carrillo, and Park (2005) postulated that when intercultural communication differences between patient and physician are left unresolved during medical encounters, these adverse events may result in (a) patient dissatisfaction with clinical care, (b) nonadherence to medical instructions, and (c) poorer health outcomes for the patient. Although these barriers may apply to various patients with chronic illnesses, Betancourt et al. (2005) posited that these life experiences may be more pronounced in underrepresented minority groups. Other researchers have highlighted the significance of patient centered, culturally sensitive health care in (a) promoting positive health behaviors, (b) improving health outcomes for ethnic minorities, and (c) eliminating racial-ethnic health disparities in minority populations (Davis, Schoenbaum, & Audet, 2005; Tucker et al., 2011).

Problem Statement

Asthma is a chronic illness that presents significant challenges for both children and their caregivers (CDC, 2014a; Lindsay & Heaney, 2013). After asthma is diagnosed and asthma severity is medically confirmed, parents are charged with the primary duty of managing the child's condition daily (Brown et al., 2010). Currently, there is a disparity

between parental care given to asthmatic children and physician recommendations regarding the care of children (Klok, Kaptein, & Brand, 2015). Although patient-centered care for childhood asthma has focused primarily on the collaboration between physician, patient, and parent, some argue that the quality of this collaboration in asthma care, medication education, and adherence to treatment has fallen short of the National Institutes of Health asthma guidelines (Klok et al., 2015). Although there are many determinants that impel medication nonadherence among asthmatics, the rate of low- to nonadherence for asthmatic children varies between 30%–70% (Lindsay & Heaney, 2013). Therefore, understanding the importance of adhering to asthma treatment by parents is significant to clinical practice and positive health outcomes (Brown et al., 2010; Lindsay & Heaney, 2013).

Across the United States, asthma remains a primary cause of unwarranted hospitalizations and deaths among children (CDC, 2013). This respiratory condition has fallen disproportionately on minorities, particularly on African American and Hispanic children in urban localities (Asthma & Allergy Foundation of America, 2017), and these ethnic-racial differences remain multifaceted (The National Medical Association, 2017). Asthma has also become a persistent issue for other racial minority subgroups across the United States, such as American Indians, Alaska Natives, Asian Indians, and children of Chinese-Filipino descent (CDC, 2012). Yet historically, asthma prevalence literature among these smaller minority subgroup populations has been widely excluded from research or underrepresented (Brim, Rudd, Funk, & Callahan, 2008; CDC, 2014b; Mehal, Holman, Steiner, Bartholomew, & Singleton 2014). Although great strides have been

made to better understand the complex nature of asthma pathophysiology and pathogenesis, including the effectiveness of therapeutic options for pediatric patients (Colice, 2011; McIvor, 2015), these efforts have produced inconsistent results in terms of improving the self-management of asthma in children, decreasing health care use and costs, or reducing disease prevalence across racial-ethnic populations (Archibald, Caine, Ali, Hartling, & Scott, 2015).

In most cases, the duty of managing childhood asthma falls outside of the medical environment (Archibald et al., 2015). Because parents of asthmatic children provide most of the care, improving their parental capacity to effectively manage the complex aspects of asthma is critical to reduce disease prevalence (Archibald et al., 2015). Research conducted by Archibald and Scott (2014) on the information needs of parents with asthmatic children revealed a high demand for comprehensive asthma education. However, there is limited literature on the perceptions of parents in terms of their needs, asthma knowledge gaps, and care priorities (Archibald et al., 2015). Archibald et al. (2015) asserted that this lack of knowledge presents gaps in understanding parents' feelings about asthma, the emotional and social effects of asthma care, and how these beliefs may impact adherence to treatment. To date, existing approaches to pediatric asthma education have failed to fully address the informational needs of parents, and only a handful of studies have recognized the significance of including this component in asthma strategies (Archibald et al., 2015). Wall, Tucker, Roncoroni, Allan, and Nguyen (2013) asserted that additional research using patient-centeredness models is needed to further understand how perceived cultural sensitivity in health care affects patient

satisfaction and treatment adherence among different racial-ethnic groups who may experience heath inequalities when compared to well-documented asthmatic populations. In previous studies, cultural sensitivity in health care research has focused primarily on how physician engagement affects the quality of asthma treatment among disadvantaged African Americans and Hispanics in urban settings (Neilson, Wall & Tucker, 2016; Pinnock, 2015; Wall et al., 2013). However, little is known about parental perceptions of physician cultural sensitivity, and if physician interaction, or other health care factors (i.e., health care costs) leads to an increase of asthma care regimen adherence across different racial-ethnic minority subgroups (Neilson et al., 2016; Wall et al., 2013). Currently, there is no known cure for asthma (CDC, 2017b), and due to its complexities, the chronic condition may present certain challenges for ethnic-minority parents now and in the future (Brown et al., 2010). Adhering to asthma treatment should include a complex range of practical and culturally sensitive approaches that support families of different backgrounds in asthma knowledge, asthma management, and daily responsibilities (Brown et al., 2010; Garbutt, Yan, Highstein, & Strunk, 2015). Among the many aspects of this dissertation, gathering data on physician cultural sensitivity from the parent or caregiver perspective (Nielsen et al., 2016) could be valuable to better understand the role of chronic disease management in the care behaviors of parents with asthmatic children. In this study, I sought to gather qualitative and quantitative data into whether a relationship exists between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence.

Purpose of the Study

The purpose of this study was to determine whether there is a relationship between parental perceptions of physician cultural sensitivity and parental treatment adherence. Situated in the Midwest region of the United States, this study used a mixed-methods approach through the integration of both qualitative and quantitative research designs. A descriptive statistical survey questionnaire was used in combination with in-depth interviews to develop an understanding of parental perceptions on physician cultural sensitivity as it relates to the adherence of asthma treatment in minorities. The qualitative portion of the study included data collected from one-on-one interviews with parents using semistructured topic guides relating to perceived physician cultural sensitivity. NVivo software provided the approach for coding, organizing, and collapsing complex content and emerging themes relating to other parental perceptions or concerns (i.e., lack of support, financial constraints, apprehensions with using long-term asthma medication). The quantitative portion of the study included self-reported information from parents or caregivers of asthmatic children. To measure the differences in parent's nonadherence to treatment or adherence treatment, including other factors such as medication dependency or adverse effects, I used previously validated questionnaires and scales (i.e., beliefs about medications and the medication adherence scale). In the past, these designs have been used in a study about parents with asthmatic children (Conn et al., 2005; Conn et al., 2007) and in other studies about adults with chronic conditions (Horne & Weinman, 1999; Neame & Hammond, 2005).

Research Questions

This mixed-methods study was guided by the following research questions:

RQ1: Qualitative: How do minority parents of asthmatic children in Denver perceive the cultural sensitivity of their children's physician?

RQ2: Quantitative: Does physician engagement (communication style, visitation length) correlate with minority parents' adherence to prescribed asthma treatment for their asthmatic children?

H_0: Physician engagement and adherence to prescribed asthma treatment are independent.

H_a: Physician engagement and adherence to prescribed asthma treatment are not independent

RQ3: Quantitative: Is physician cultural sensitivity associated with the asthma management beliefs and care behaviors of minority parents caring for their asthmatic children?

H_0: Physician cultural sensitivity and asthma management beliefs are independent.

H_a: Physician cultural sensitivity and asthma management beliefs are not independent.

Theoretical and Conceptual Framework

The theoretical framework for this study is based on the theory of reasoned action (TRA) (Azjen & Fishbein, 1980; Fishbein & Azjen, 1975). This theoretical construct provides a cognitive approach for understanding the link between individual attitudes and

human behavior (Azjen & Fishbein, 1980). TRA focuses on individual motivation as a key determinant for predicting how individuals will engage in a specific behavior based on their preexisting attitudes, beliefs, and behavioral intentions (Azjen & Fishbein, 1980). Azjen and Fishbein (1980) posited that TRA provides a conceptual framework for understanding why an individual's decision to behave in a certain way is based on what they expect to see as a result of engaging in that behavior. Preexisting attitudes can greatly influence health behaviors and are strongly related to positive or negative consequences (Azjen & Fishbein, 1980).

According to Azjen and Fishbein (1980), how a person feels about performing and then adopting a specific health behavior is linked to how they perceive the outcome. Applying TRA to this study enables the behavioral characteristics of participants to emerge, thus providing a deeper understanding into the motivating factors and barriers that influence behavior (Azjen & Fishbein, 1980; Fishbein & Azjen, 1975) (i.e., lack of support or encouragement from physicians, financial constraints). As Azjen and Fishbein (1980) asserted, having a perception of positive consequences for engaging in health behaviors will create a positive attitude for an individual. However, when a person perceives or has experience barriers, the likelihood for developing a negative attitude increases (Azjen & Fishbein, 1980), which can affect their health and well-being. Frech (2012) denoted that health-promoting behaviors are learned during childhood and adolescence. Children who establish patterns of health-related behaviors early in life are more likely to maintain these behaviors throughout maturity (Frech, 2012). Furthermore, current research shows the effects of parental influence, attitudes, and knowledge on

health outcomes (Case & Paxon, 2002; Useche & Alonso, 2017; Yamamoto & Nagano, 2015).

Nature of Study

In this study, I used a mixed-methods approach, consisting of both qualitative and quantitative research designs (i.e., triangulation, detailed textual data). For the qualitative aspect of this project, interpretative phenomenology was used to examine the real-world experiences of study participants who share similarities about their unique perspectives regarding physician cultural sensitivity, physician engagement, and adhering to prescribed asthma treatment for their children. Sutton and Austin (2015) defined phenomenology as the "exploration of participants behavior and focuses on understanding how human beings experience their world" (p. 226). Phenomenological research is interested in generating detailed descriptions of shared experiences instead of theorizing the thoughts and feelings that people may attribute to their personal experiences (Sutton & Austin, 2015). The concept also gives researchers the opportunity to relate and understand the subjective views of participants, thereby providing a deep awareness about the factors that impact how people make health decisions (Sutton & Austin, 2015). To explicate how this viable research emerged, I conducted and analyzed in-depth individual interviews with different racial/ethnic parents using semistructured topic guides. Subsequently, to determine parental adherence to asthma treatment, I identified, extracted, thematically grouped, and compared their responses to interview questions. The foremost inclusion criteria for the study included ethnic minority parents of asthmatic children aged 0–17. Additionally, eligibility for selection and participation

of this study included (a) parents and child live together, (b) children have a confirmed diagnosis of asthma from a primary care physician, (c) children are currently using a rescue inhaler or other asthma medications at home, and (d) parents have attended more than one medical visit with their child's primary doctor, urgent care, or the ER in the past 12 months. Exclusion criteria used during the screening process included (a) parents of children with other congenital respiratory, wheezing illnesses, or other comorbidities that might affect lung functionality (i.e., cerebral palsy, muscular dystrophy, sickle cell anemia, or cystic fibrosis) and (b) parents and children who do not self-identify as minorities . I used a sample size of six for the qualitative aspect of this study.

Additionally, I incorporated quantitative methods into this research project using a descriptive statistical survey questionnaires, including individual interviews with parents who provided data on parental care behaviors and attitudes. In this aspect, quantitative research was pertinent because the approach included self-reporting measures that parents could rate, such as their adherence or nonadherence to asthma medication treatment for the child and level of patient satisfaction in their child's medical care. The quantitative portion of this study was used to examine the correlation between the dependent variable (adherence to child's prescribed asthma treatment) and the independent variables (perceived physician cultural sensitivity and physician engagement). Additionally, tailored key item lines defined in three previously validated survey instruments were integrated into this study to measure parents' perceptions of physician cultural sensitivity (a) MOS measures of patient adherence survey instrument (RAND Health, 2017a), (b) a demographic data questionnaire that includes questions

from the U.S. Census Bureau, including the behavioral risk factor surveillance system, and (c) an adapted version of the Tucker-culturally sensitive health care provider inventory-patient form (T-CSHCPI-PF) (Tucker, Nghiem, Marsiske, & Robinson, 2013). An e-mail requesting permission to use an adapted version of the T-CSHCPI-PF was forwarded to the model's creator, who granted approval (Appendix A).

According to the U.S. Census Bureau (2018), the estimated population within the City and County of Denver reached 693,060 by July 1, 2016; by demographics, the diverse ethnic population included 3.9% Asian, 10.1% African American, 30.2% Hispanic or Latino, 0.2% Native Hawaiian/Pacific Islander, 1.9% Native American/Alaskan Native, and 3.1 % two or more races combined (U.S. Census Bureau, 2018). For the quantitative aspect of this study, a sample size of at least 168 study participants was determined to ensure external validity. To establish an adequate sample size of how many participants to interview and to obtain statistically significant results that reflect the target population, I employed a web-based sample size calculator designed by Creative Research System (2018). Calculating the correct sample size included deciding the (a) the population size of racial-ethnic groups living in Denver, (b) confidence interval, (c) confidence level, and (d) standard of deviation. Full details on how this sample size was obtained are outlined in Chapter 3.

Definitions

Summarized below are operational definitions and terms relevant in the context of this research study:

Adherence: The degree to which a patient agrees to and complies with a physician's and/or health provider's medical recommendations (Lindsay & Heaney, 2013). Adherence will be measured using a slightly modified version of the measures of patient adherence survey (RAND Health, 2017a). General adherence items will be used to gather information on parents' tendency to adhere to treatment recommendations and how often parents carried out the treatment recommendations.

Aggressive asthma therapy: Frequent interactions with physicians and/or health care providers to monitor the condition, develop or update action treatment plans, and provide age appropriate education, including sustainable support services to assist patients in managing the asthma effectively (American College of Allergy, Asthma and Immunology, 2015).

Asthma: A common, chronic inflammatory disease that affects the bronchial tubes in the lungs, making it difficult to breathe. For individuals with asthma, inflammation in the lungs can cause frequent episodes of wheezing, shortness of breath, chest tightness, and intense coughing, especially at nighttime or in the early morning (CDC, 2018).

Asthma pathogenesis: The pathology of asthma involves inflammatory cells, nerves, biochemical mediators, and microvascular leakage that could be triggered by different mechanisms, including exposure to allergens. Variations in the clinical severity, persistence, and chronicity of asthma depends on the interaction between airway inflammation and airway remodeling (Kumar & Clark, 2012).

Asthma pathophysiology: The pathophysiology of asthma is characterized by the association of airway inflammation, intermittent periods of airflow limitation, and bronchial hyperresponsiveness (Doeing & Solway, 2013).

Cultural sensitivity: The recognition that differences and similarities exist between people without appointing value to certain cultures. It is an awareness that all people are not the same and is reflected in how different groups communicate and connect with one another. In health care, this awareness is carried over when physicians interact effectively with patients from other cultures. It is the degree to which ethnic and cultural characteristics of patients are integrated into the design, delivery, and assessment of health services (Resnicow, Baranowski, Ahluwalia, & Braithwaite, 1999; Cang-Wong, Murphy, & Adelman, 2009). To measure physician cultural sensitivity, a modified version of T-CSHCPI-PF was used to gather information to explore how parents perceive their experiences with their child's primary physician. A small group of experts reviewed the modified version of the questionnaire for validity and reliability.

Cultural sensitivity health care: A health professional's "ability to be appropriately responsive to the attitudes, feelings, or circumstances of groups of people that share a common and distinctive racial, national, religious, linguistic, or cultural heritage" (U.S. Department of Health and Human Services, Office of Minority Health, 2001, p. 131).

Disease management: A coordinated strategy initiated by an interdisciplinary team of health providers to improve the quality and cost-effectiveness of care for patients diagnosed with chronic illness. Disease management encourages patients to collaborate

with health care providers to manage their disease and prevent complications (Faxon et al., 2004).

Ethnic group: Pertains to the shared characteristics of a community or population who share a distinctive cultural background, homeland, history, ancestry, religion, and language. People who belong to an ethnic group view themselves as sharing similar social experiences and cultural traditions that differentiate them from other groups (People & Bailey, 2011).

Minority group or ethnic minority group: A group of people who differ from the majority population in terms of race, color, cultural background, religion, or national origin. The identity of an ethnic minority group may be presented in different ways, varying from distinctive customs and beliefs, lifestyles, dialect, clothing, food habits, opinions, cultural values, economic viewpoints, or political ideologies adopted by members of the same group (Castles & Davidson, 2000).

Health disparities: Differences in health and health outcomes closely related to socioeconomic and/or environmental disadvantages. Health disparities unfavorably affect groups of people with similar interests or aims, who have systematically endured greater obstacles to health. Historically, these obstacles are linked to ethnic and race-based discrimination, religion, socioeconomic status, age, gender, mental health, sexual orientation, or geographical area (Healthy People 2020, 2018).

Patient-centered culturally sensitive health care: Tucker et al. (2011) stated that this type of care embodies the following characteristics:

(a) “it emphasizes displaying patient-desired, modifiable provider and staff behaviors and attitudes, implementing health care center policies, and displaying physical health care center environment characteristics and policies that culturally diverse patients identify as indicators of respect for their culture and that enable these patients to feel comfortable with, trusting of, and respected by their health care providers and office staff, (b) it conceptualizes the patient-provider relationship as a partnership that emerges from patient centeredness, and (c) it is patient empowerment oriented” (p. 342).

To measure patient-centered culturally sensitive health care, I used a modified version of T-CSHCPI-PF to gather information on how parents perceive culturally sensitive health care demonstrated by (a) their child’s primary physician, (b) the physician’s office staff, (c) the physical environment of the physician’s office space, and (d) the physician’s office policies.

Physician engagement: A key driver in sustaining a culture of quality health care that is patient-centered. To enhance quality improvement activities, physician engagement aims to create long-lasting relationships between physicians, hospitals, or other health care systems. It remains an important factor for (a) improving patient care, (b) lowering health care costs, and (c) creating greater efficiency for health care management practices (Taitz, Lee, & Sequist, 2011). To measure physician engagement, I used a modified version of T-CSHCPI-PF to gather information on how parents perceive the quality of medical encounters and interactions experienced with their child’s primary physician.

Physician-patient relationship: When a physician serves in the best interest of their patient's medical needs. Generally, the relationship between physician and patient (or by a health care proxy) is consensual and mutual. Once a relationship is established, the physician affirmatively acts to (a) comply with medical practice policies, (b) collect information, (c) diagnose the patient, and (d) recommend treatment to cure or relieve symptoms (American Medical Association, 2018). To measure how parents perceive the status of their current physician-patient-parent relationship, I adapted a modified version of T-CSHCPI-PF to collect information.

Phenomenology: The interpretive study of human consciousness and self-awareness as experienced from the first-person viewpoint (Seamon, 2014). As a research method, the approach is both inductive and descriptive. It aims to explore human situations and respective meanings as they occur naturally in daily life (Seamon, 2014). Phenomenology allows the researcher to (a) focus on the lived experiences of a specific phenomenon by attaining access to the person's life, (b) understand the meaning behind the person's real-world experiences, and (c) extract and condense the person's experiences into one essential concept (Moustakas, 1994; Seamon, 2014).

Assumptions, Scope, Delimitations, and Limitations

Assumptions

A key assumption underlying this study was that parents' perceptions of physician cultural sensitivity and adherence to asthma treatment among underrepresented minority groups would differ from that which is reported for other highly researched populations. For many different ethnic minority groups and subgroups, members are bound by cultural

traditions and social norms, including a shared sense of collective identity and common burdens. However, during medical encounters with physicians of another racial or ethnic background, parents are faced with unforeseen barriers, some of which include language barriers, lack of physician engagement, and major cultural differences. Therefore, it is of great interest to see how these factors could influence parents' adherence to treatment and asthma management behaviors.

Another key assumption of this study was that minority children residing in the Midwestern region of the United States are at high risk of developing asthma and having more severe asthma attacks relative to the majority Caucasian population (Meyer, Yoon, & Kaufmann, 2013). In the United States, possible contributing factors for differences in asthma prevalence and severity among ethnic minorities include (a) physicians' lack of cultural sensitivity that could undermine the quality of care, (b) pollutant variation in regional air quality, (c) limited access and/or responsiveness to asthma treatment, and (d) other determinants of health (i.e., biological, socioeconomic, psychosocial, behavioral). If not addressed, the reasons will continue to have adverse health implications for minority children, as minority populations suffer disproportionately higher rates of ER visits, hospitalizations, and mortalities resulting from pediatric asthma.

Scope and Delimitations

The delimitations for this study are minority parents of asthmatic children aged 0–17 years and whether there is a relationship between parental perceptions of physician cultural sensitivity and parental adherence to prescribed asthma treatment for their asthmatic children. This mixed-method study included comparative illustrations between

ethnicities: individuals who identify as African American, Latino, Asian, American Indian/Alaska Natives, Native Hawaiian/Pacific Islander, or multiracial. Outreach for research participants took place throughout the City and County of Denver. Since 2010, Denver has experienced a significant influx of population growth; the dramatic shift has impacted the racial-ethnic composition and characteristics of the current population in this area (Denver Office of Children's Affairs, 2017). The rapidly changing patterns in growth and demographic composition of minority groups moving into Denver include Latinos, Asians, and multiracial populations (Denver Office of Children's Affairs, 2017). While Denver is the 19th most populated city in the United States (U.S. Census Bureau, 2016), the results were limited and generalizability was compromised. Due to limitations in employing certain multiple-choice items, sampling limitations, and constraints on generalizability, the study findings could not be applied to a general, much broader population of minority parents with asthmatic children living in Denver, Colorado. Therefore, parental perceptions of physician cultural sensitivity, including other cultural, social, and economic factors impacting the study, may differ among minority parents living in other regions of the United States. The results of the study are summarized and interpreted in Chapter 5.

Limitations

This mixed-method study rendered several limitations that needed to be addressed and clarified, particularly when drawing any conclusions. One key limitation was that this study involved specific factors that could threaten quality assurance, validity, and reliability when conducting mixed-methods studies, including recall bias and population

sampling techniques (Creswell & Plano Clark, 2011). For example, the recall period length in health care questions relating to parent satisfaction in culturally sensitive pediatric care and parental adherence to asthma treatment varies between surveys. Effects of recall bias and variation on measures could have impacted study results. However, overall outcomes were addressed using proper surveying instrumentation. Sampling procedures presented another concern, as they could have affected data analysis or presented insufficient results and improper final conclusions. However, surveys and in-depth interviews were conducted with minority parents of children medically diagnosed with asthma who currently reside in Denver's metro area. Both surveys and in-depth interviews were accessed through informal gatekeepers consisting of family members, close friends, church acquaintances, and individuals who belonged to different recreational groups in Denver to better understand parents' perceptions of (a) physician cultural sensitivity, (b) the barriers to asthma treatment adherence, and (c) current asthma knowledge. Furthermore, conducting in-depth interviews in this manner was logistically demanding and time-consuming, which presented additional challenges for the study.

Further limitations involved developing a reliable and valid measurement instrument, which, in this case, was a newly created interviewer-administered questionnaire. All questionnaires were slightly modified to ensure cultural sensitivity and contextual relevance of minority parents involved in the study. This approach raised a few challenges, as there were no assurances to adduce its validity and internal coherence. Because this study consisted of English-only surveys and interviews, there could be an underrepresentation and/or exclusion of minority parents with limited English language

proficiency. However, to ensure easy-to-read and visually appealing questionnaires, pretesting activities were implemented. Conducting a series of preliminary testing aimed to establish questionnaire functionality, construct, and content validity. Each pilot test included interviews with a sample size of at least five responders who assessed the face validity of questionnaires that were created or adapted and views of diverse racial-ethnic parents to help ensure that all questions were relevant to their specific needs and/or life experiences. Results from each pilot test helped to refine the wording and design of the questionnaire under review. Additionally, to decrease the level of misperception and ambiguity, the questionnaire was published in language that is clear, concise, and free from medical jargon.

Significance of the Study

This study focused on parental perceptions of physician cultural sensitivity and examined whether these preexisting beliefs affect a parent's self-efficacy to manage their child's asthma care and treatment and sought to increase understanding about the role of chronic disease management in care behaviors, including the lived experiences of parents with asthmatic children. This dissertation is unique because it addresses an underresearched area of perceptual viewpoints by racial-ethnic parents toward culturally sensitive medical care, including those minority subgroups that are widely underrepresented in existing literature, who may be impacted by health inequalities in urban settings (CDC, 2012; Wall et al., 2013). Furthermore, insights from this study should aid primary care physicians in how they engage minority parents in a culturally

sensitive way that supports parents' ability to effectively monitor, evaluate, and respond quickly to changes in their child's respiratory condition.

Asthma remains a long-term, chronic illness without cure but can be controlled with proper clinical care, medication adherence, and supportive self-management education (Bainbridge, McCalman, Clifford, & Tsey, 2015; CDC, 2014a; Pinnock, 2015). Thus, addressing disparities in the delivery of culturally appropriate asthma care, management, and education among minority families presents potential for positive social change in society and a strong likelihood of changing the health care behaviors of parents, thereby increasing self-empowerment, all while guiding their child through the process of asthma self-management and lifelong responsibility (Brown et al., 2010). In asthma treatment, nonadherence among asthmatics and a failure to properly identify their behaviors may cause unnecessary escalations in aggressive asthma therapy, or unwarranted biologic-target medications (Fajt & Wenzel, 2015; Lindsay & Heaney, 2013). Thus, the results of this study aimed to provide insight into why cultural sensitivity in clinical practice is essential for improving asthma knowledge, increasing parental self-efficacy in managing a child's asthma, reducing the impact of health disparities in asthma care, and enhancing the quality of life for minority families.

Summary

This chapter highlighted the burden of asthma on minority children in the United States, current trends related to the disease, the significance of cultural sensitivity in the physician-patient-parent relationship, the role of parents or other family caregivers in managing chronic illness, and barriers and factors associated with asthma treatment

adherence. The introduction provided an overview of the problem statement, research questions, research methodologies, and key concepts that contributed to the significance of this study. This chapter also included operational definition of terms, assumptions, and limitations in the literature. Furthermore, within this study, steps were taken to describe specific strategies aimed at (a) supporting patient-centered culturally sensitive health care, (b) encouraging active partnerships between parent and physician, and (c) fostering pediatric asthma management and medication adherence. In Chapter 2, a thorough review of the literature will be discussed to better understand and examine this study's problem, its significance, the research questions, and models and other strategies that support key concepts outlined in Chapter 1. Chapter 3 presents a more detailed review on the study's design, methodology used, participant sampling techniques, and data collection instruments. In Chapter 4, the results of this study and statistically derived findings will be explained and related back to the research questions. Lastly, Chapter 5 presents a detailed summation about the study findings, including recommendations for future research and implications for positive social change.

Chapter 2: Literature Review

Introduction and Background

The U.S. Department of Health and Human Services Office of Minority Health (2001) has defined cultural sensitivity in health care as "the ability to be appropriately responsive to the attitudes, feelings, or circumstances of groups of people that share a common and distinctive racial, national, religious, linguistic, or cultural heritage" (p. 131). Arnold and Underman-Boggs (2011) posited that cultural sensitivity reflects a health professional's "openness to different cultural beliefs and values, with a corresponding willingness to incorporate the clients' cultural values in care whenever possible" (p. 119). As Tucker, Moradi, Wall, and Nghiem (2014) denoted, cultural sensitivity in health care should include a patient-centered approach that encourages respect for cultural differences between diverse individuals. For people working in the medical field, cultural sensitivity can be an awareness, consideration, and attentiveness to the ways patients and their caregivers value health or perceive the quality of their health care services (Seibert, Stridh-Igo, & Zimmerman, 2002; Tucker et al., 2014). The purpose of this study was to assess whether there is a relationship between parental perceptions of physician cultural sensitivity and parental adherence to asthma treatment among minority groups in Denver, Colorado.

Asthma and Ethnic Minorities

Asthma is a chronic disease that continues to impact the everyday lives of children and their families (Lindsay & Heaney, 2013). The disease has become an unfavorable and prevalent health issue that has affected nearly 300 million people

worldwide (Braido, 2013). Historically, scholarly literature on asthma included discussions on disparities in care that focused on the socioeconomic burdens of minorities, specifically African American and Hispanic children living in urban areas (Asthma & Allergy Foundation of America, 2017). The ethnic-racial differences in asthma prevalence among these populations are strongly correlated to (a) poverty, (b) urban-air pollution, (c) allergen exposure, (d) lack of knowledge, (f) inadequate medical care, (e) a mismanagement of medications, and (f) insufficient community resources (National Medical Association, 2017). However, the complexities of treating asthma have become a major concern for smaller minority subgroups living in America's rural and urban localities (CDC, 2012). Thus far, public health research on asthma prevalence among American Indian, Alaska Native, Asian Indian, and Chinese-Filipino groups have been largely underrepresented (Brim et al., 2008; CDC, 2014b; Mehal et al., 2014).

Asthma Prevalence in Denver, Colorado

In Denver, asthma has become a serious health condition, particularly among children, as more than 4,000 are treated each year (Denver Public Health, 2014). According to the City and County of Denver (2014), the prevalence of asthma has disproportionately impacted minority families, particularly those who reside in older urban infrastructures located in socioeconomically disadvantaged neighborhoods. In 2014, the highest number of asthma-related emergency department visits and hospitalizations occurred among low-income African American and Hispanic children, especially those living in northern or western Denver (City and County of Denver, 2014). Above-average rates among these at-risk populations are due to differences in patient

access to specialized coordinated care, disease management, and environmental triggers (City and County of Denver, 2014). However, there has been a recent influx of different ethnic minorities who have migrated into the metro Denver area (Denver Office of Children's Affairs, 2017).

According to the Denver Office of Children's Affairs (2017), by the end of 2015, 33% percent of Denver's child population (under the age of 18) were considered non-Hispanic Caucasian. To date, children of Hispanic origin make up the largest ethnic racial group in Denver at 48%, followed by African American children at 11%, Asian children at 3%, and American Indian at 1% (U.S. Census Bureau, n.d.). When compared to Colorado or to other urban areas across the United States, Denver has a higher percentage of children from ethnic and racial minorities (Denver Office of Children's Affairs, 2017). For asthma sufferers, particularly children in urban regions, moderate to high levels of benzene and ozone concentrations may aggravate asthma symptoms, leading to higher rates of hospital admissions and premature deaths (Denver Public Health, 2016).

Asthma as a Manageable Condition

After an asthma diagnosis is provided by a primary care physician, parents are usually held responsible for managing the child's condition (Brown et al., 2010). For children with asthma, inadequate treatment of the illness can restrict their ability to be active and live a normal life (Braido, 2013). If persistent asthma is not properly controlled, the disease could lead to adverse clinical outcomes and numerous visits to the ER (Anise & Hasnain-Wynia, 2016). According to the Asthma and Allergy Foundation of America (2017), asthma remains a major cause of hospitalizations among children 15

years or younger in the United States. It is common for children diagnosed with asthma (89%) or children without asthma (84%) to visit their physician throughout the year, but asthmatic children are more likely to visit their pediatrician three times more than those without asthma (CDC, 2016).

During the childhood years, the role of parents in managing asthma on a daily basis can become a laborious task, as they must oversee the child's illness within the context of family (Brown et al., 2010). The intents of asthma management are to ensure that a child's medical condition has been properly diagnosed and to provide the child with a normal quality of life (Braido, 2013). To manage childhood asthma properly, parents must understand asthma as a chronic illness and comprehend the necessity of asthma treatment. Parents must also build self-confidence in their abilities to monitor, evaluate, and respond quickly to complex changes in their child's respiratory condition (Westergren et al., 2015).

Although there is no known cure for asthma, the disease can be managed with proper care, treatment, and changes in lifestyle behaviors (CDC, 2014). However, due to the complex nature of asthma, the illness could pose daily challenges for parents and children of all racial, ethnic backgrounds (Archibald & Scott, 2014; Brown et al., 2010). Therefore, physicians should employ strategies that promote treatment adherence based on culturally sensitive care in order to support families of different backgrounds in their daily responsibility and burden of childhood asthma management (Brown et al., 2010; Garbutt et al., 2015). Gathering information from different minority groups could be beneficial in understanding why cultural sensitivity plays a significant role in patient

care, disease management, and care behaviors of parents with asthmatic children. Using a mix-methods approach, I aimed to better understand whether a link exists between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence.

Parents of minority asthmatic children were chosen for my study primarily to examine whether preexisting beliefs toward culturally sensitive medical care affects their self-efficacy to manage their child's asthma care and treatment. Additionally, I wanted to increase an understanding about the role of chronic disease management in care behaviors, including the lived experiences of parents with asthmatic children. Culturally sensitive health care is particularly important for minority parents, given that they may be culturally different from their medical providers (Tucker et al., 2014). In Chapter 2 of this dissertation, I compile a literature review that draws attention to the meaning of physician cultural sensitivity. Overall, my study examines whether there is a relationship between parental perceptions of physician cultural sensitivity and parental treatment adherence. To address whether provider cultural sensitivity as perceived by parents influences parental care and asthma treatment adherence among minority groups in Denver, Colorado, I used a mix-methods approach integrating both qualitative and quantitative research designs. Descriptive statistical surveys and questionnaires were used in combination with in-depth one-on-one interviews to develop an understanding of parental perceptions on physician cultural sensitivity as it relates to adherence to asthma treatment among racial, ethnic minorities. The quantitative portion of the study included self-reported information from parents or caregivers of asthmatic children. A short

questionnaire was used to measure the differences in parent's adherence to treatment, including other factors such as trust and client satisfaction during medical visits with the child. The qualitative portion of the study employed data collected from one-on-one interviews with parents using semistructured topic guides related to perceived physician cultural sensitivity. NVivo software was used to code, organize, and collapse complex content and emerging themes related to other parental perceptions or concerns (i.e., lack of support, financial constraints; apprehensions with using long-term asthma medication).

To establish an understanding into whether there is a relationship between parental perceptions of physician cultural sensitivity and parental treatment adherence, this chapter aims to present a critical review of the literature. To conduct a comprehensive search, a strategy was formulated to include certain databases, search engines, and key words. Support for the theoretical framework was discussed to provide a cognitive approach for understanding the relationship between individual attitudes and human behavior. This chapter reviewed key concepts related to a mix-method approach, consisting of both qualitative and quantitative research designs. To transition into the research methods emphasized in Chapter 3, key findings in the literature are discussed in Chapter 2.

Literature Search Strategy

In terms of this review, the main topics researched included minority children with asthma in the United States; the burden of asthma on minorities; asthma prevalence in racial subgroups; cultural sensitivity in the health care delivery; cultural sensitive asthma care for ethnic minorities; cultural sensitive health models; disenfranchised ethnic

minorities and the burden of asthma; asthma pediatric asthma care; parental asthma perceptions; parental attitudes and asthma beliefs; the burden of asthma on minorities; cultural sensitivity in health care; pediatric asthma care management; parental asthma adherence, burden of asthma on minorities; asthma racial disparities; asthma and cultural approaches; parent-physician relationship and medication adherence among parents.

First, several searches were explored to clarify the differences in meaning between cultural sensitivity, cultural competency, and cultural awareness. During this phase of the review, I reviewed various literature sources related to the differences in definitions and were retrieved from scholarly writers, social scientists, encyclopedic public health dictionaries, multiple peer-reviewed articles, including U.S. local and federal governmental websites. The following search engines were used: Academic Search Premier, CINAHL Plus with full text, Google Scholar, PUBMED/MEDLINE, Science Direct, and Sage Knowledge. In addition, the following keywords were explored: *asthma adherence, asthma prevalence, childhood asthma, culturally sensitive, patient-centeredness; care behaviors, minority groups in Denver, patient centeredness, non-adherence to asthma treatment, health disparities in asthma, disease prevalence,* and *quality in asthma care*.

Throughout the literature strategy process, I gathered scholarly articles that addressed key research goals, explored the significance of cultural sensitivity models in clinical practice, and identified gaps within the literature. Based on the keywords, this literature review involved a systematic process. Any document relevant to this study was carefully reviewed by electronic download and catalogued using Endnote, a bibliographic

management software that facilitates proper APA citations and reference formatting. To obtain a thorough understanding about the topic for my study, articles cited repeatedly by more current articles were reviewed and logged. Using this exhaustive approach, offered a wealth of knowledge that consisted of scholarly materials, including studies that included mixed methodologies and one-on-one interviews. The reviewed articles revealed that parents should understand asthma as a chronic illness to evaluate, and to respond quickly to changes in their child's respiratory condition. However, most of these articles were specific to African-American and Hispanic patients and did not address whether parents of different minority backgrounds feel supported by physicians who are sensitive to their cultural identity, family life, fears, and concerns.

Theoretical Framework

The theoretical framework implemented in this study is based on TRA (Azjen & Fishbein, 1980). The theoretical concept contends that an individual's behavioral intention is the determining factor in human behavior (Azjen & Fishbein, 1980). TRA focuses on motivation and rational thinking as direct determinants for predicting how individuals perform certain behaviors based upon their preexisting attitudes and beliefs about what the end-results (Azjen & Fishbein, 1980). Azjen and Fishbein (1980) posited that preexisting attitudes and beliefs can influence health behaviors, and are often linked to perceived positive or negative outcomes.

According to Azjen and Fishbein (1980), a person who feels a sense of empowerment over a certain health behavior is more likely to perform, and then adopt it. The strength of using TRA in this study allows the behavioral characteristics of parents to

emerge, thus offering a greater understanding into the factors that motivate and/or hinder health behaviors (Azjen & Fishbein, 1980). Azjen and Fishbein (1980) denoted that a positive perception for performing, and/or adopting a certain health behavior may create a positive outlook for the individual. On the other hand, when individuals hold objectionable feelings or have experienced certain life-challenges, the possibility for developing negative attitude will increase (Azjen & Fishbein, 1980), effecting one's physical, mental, or social well-being.

Childhood Asthma

Childhood asthma continues to impose a great concern on diverse populations across the United States (Thakur et al., 2013). However, the chronic illness is overwhelmingly felt among racial and ethnic minorities who are socioeconomically deprived (Thakur et al., 2013). Asthma is a lifelong disease that can affect the lungs in a devastating way posing adverse consequences that include permanent lung damage or even death (CDC, 2017). For individuals with asthma, the swelling and narrowing of the lungs can trigger recurring episodes of wheezing, constant coughing, chest-tightening, and difficulty in breathing (CDC, 2017). To counteract the recurrence of incommodious symptoms, asthmatics can manage their condition by adhering to physician recommendations, taking prescribed medications, and avoiding triggers that can cause an unforeseen attack (CDC, 2017; National Heart, Lung and Blood Institute, 2014). When asthma is poorly controlled, it may cause a severe case of breathlessness requiring an unforeseen visit to the ER (CDC, 2017).

The onset of childhood asthma is no different from asthma in adults (CDC, 2017; National Heart, Lung and Blood Institute, 2014). However, a child's level of health is strongly linked to intellectual learning, including their cognitive, physical, and social-emotional development (National Heart, Lung and Blood Institute, 2014). The complications of asthma exacerbation continue to place limitations on a child's daily activities, including interfering with their ability to sleep comfortably at night, play sports, attend school regularly, or to socialize with others (National Heart, Lung and Blood Institute, 2014). Approximately, one in 11 children aged 0-17 are diagnosed with asthma in the United States (National Heart, Lung and Blood Institute, 2014).

To date, consistent research has shown that asthmatic children of low-income families are (a) less likely to have their prescriptions filled or refilled, (b) less likely to take their daily medications to maintain control of persistent asthma symptoms, and (c) more likely to make asthma-related ER visits than their more privileged counterparts (Koinis-Mitchell et al., 2010; Rand et al., 2000; Snyder et al., 2017; Warman, Silver, & Stein, 2001). Koinis-Mitchell et al. (2010) highlighted several contextual and cultural factors that could present difficulties in maintaining asthma control, such common neighborhood problems, allocating limited resources, or socioeconomic discrimination. Koinis-Mitchell et al. (2010) also noted that future research should evaluate how families perceive asthma-specific risks, and how these risks could counteract specific components of the asthma management process, for example implementing a viable asthma action plan, adhering to medication, identifying triggers for asthma control, and employing symptom-monitoring strategies on a regular basis. Furthermore, Koinis-Mitchell et al.

(2010) emphasized that families' experiences of asthma-related risks will depend on differences in cultural values, their emotional threshold for enduring such risks, including the sustainability of adequate resources that impact asthma morbidity. For that reason, Pinnock (2015) suggested the need for developing a collaborative partnership of care coordination between physician, parent, and child is significant to improve asthma self-management and long-term medication adherence among young asthmatics.

Health Disparities in Asthma Care Among Racial, Ethnic Minority Children

Holsey, Collins, and Zahran (2013) reflected on the fact that some populations are healthier than others and have better health outcomes. Despite great strides toward ensuring the health of all racial-ethnic minority groups, differences or gaps in health, health accessibility, and quality of care continues to be a major concern for public health (Groman & Ginsburg, 2004; Nelson, 2002). Holsey et al. (2013) denoted that the racial-ethnic differences in health and quality of care "generally reflect differences in life experiences (e.g., family, social, and economic environment), and are closely linked to the relative privilege or disadvantage of the racial or ethnic group into which they are born" (p. 172).

According to Holsey et al. (2013) finding a usual source of health care is critical for asthmatic children because it offers parents with a safety-net of care coordination and chronic disease management. However, a person's inability to obtain a usual primary-care physician draws attention to the many disparities in asthma care, particularly among racially and ethnically diverse populations (Greek et al., 2006; Holsey et al., 2013). As Holsey et al. (2013) denoted, the root causes of racial and ethnic disparities in asthma are

multilayered. Therefore, multicomponent strategies that address health care disparities and achieve equity should focus on (a) refining medical practices, (b) improving unfavorable patient educational materials, and (c) reducing environmental factors that contribute to asthma severity (Holsey et al., 2013). Holsey et al. (2013) reflected on the rich body of research that explored the efficiency of comprehensive asthma management strategies. However, the researchers noted that most of the literature examined did not consider the cultural aspects and/or the population characteristics within a specific social or geographic group. The authors suggested that additional research on culturally sensitive interventions are needed to help identify what types of strategies are effective for improving asthma self-management amid racial-ethnic minorities.

Earlier works by Greek et al. (2006) also discussed the differences and characteristics within the health care field, specifically in the usual source of health care for asthmatic minority children. The researchers explored English language proficiency among Hispanics, and the impact of family income. According to the investigators, having a usual source of care (USC) offers (a) families with a solid foundation for acquiring good primary health care and (b) empowers parents to be active decision-makers about the care of their children. In their study, Greek et al. (2006) documented that 52% of Caucasian respondents acknowledged their primary physician as a USC, 44% of African Americans identified a USC in asthma care, followed by English-speaking Hispanics at 42%. Furthermore, 40% of Spanish-speaking Hispanics with low English proficiency were least likely to have a usual source of care (Greek, et al. 2006). Greek and his colleagues found substantial differences in USC characteristics by (a) race and

ethnicity; (b) language proficiency; and (c) household income. However, considerable differences were observed in the type of primary-care physician selected, and in the barriers, that prevent accessibility to quality health care (Greek et al., 2006).

Past Literature on Culturally Sensitive Health Care

Leininger's, Cultural Care Theory stressed the significance of nurses acquiring the awareness, knowledge, and skills related to the cultural differences of diverse populations, specifically when providing congruent health services in the community they serve (Leininger, 1978). Being aware and respecting patients' cultural beliefs, values, behaviors, lifestyle, and language should be considered when providing health services (Chang, Yang, & Kuo, 2013). In 2001, The U.S. Department of Health and Human Services, Office of Minority Health described culturally sensitive health care as reflecting on the provider's "ability to be appropriately responsive to the attitudes, feelings, or circumstances of groups of people that share a common and distinctive racial, national, religious, linguistic, or cultural heritage" (p. 131). Yet, others have defined culturally sensitive health care as the way in which providers offer congruent services that are pertinent to their patients' satisfaction, expectations, and immediate health care needs (Majumdar, Browne, Roberts, & Carpio, 2004; Tucker, et al., 2011).

In past investigations on culturally sensitivity health care, some researchers posited that non-adherence to treatment amid racial-ethnic patients is due to their physician's lack of multicultural experiences, cultural awareness, culture-related knowledge and competence-based education (Chang et al., 2013; Shapiro, Hollingshead, & Morrison, 2002; Tucker et al., 2011). A few studies evaluated the level of cultural

sensitivity in various medical settings and how patients' perceptions of care influenced their adherence to physician recommendations (Lukoschek, 2003; Rose, Kim, Dennison, & Hill, 2000). However, most of these empirical works only recruited lower-income African American and/or Hispanic patients from inner-city communities (Lukoschek, 2003; Ogedegbe, Harrison, Robbins, Mancuso, & Allegrante, 2004; Rose et al., 2000). These empirical studies support the notion that many physicians are lacking in cultural sensitivity skillsets, and thus are unable to effectively communicate with their minority patients (Johnson, Roter, Powe, & Cooper, 2004; Shapiro, Hollingshead, & Morrison, 2002). For example, Johnson et al. (2004) observed that physicians who lacked cultural sensitivity appeared aloof, less than friendly, and preferred to disengage in conversation with African American patients when compared to non-Hispanic Caucasian patients. Diette and Rand (2007) discussed the impact of effective physician-patient-caregiver communication to improve patient satisfaction and adherence to long-term asthma therapy among African Americans and Hispanics. Lieu et al. (2004), examined the quality of care for asthmatic children enrolled in managed Medicaid, and discovered that patients attending culturally competent medical facilities were more likely to use their prescribed asthma medication.

According to the Agency for Healthcare Research and Quality (2014), cultural competence sets the foundation for eliminating health disparities through culturally sensitive treatment and quality medical care. Other studies on cultural sensitivity health care showed that patient experience and satisfaction are linked to a variety of positive physician behaviors such as (a) treating patients as equal partners when making decisions

about their care and treatment (Vahdat, Hamzehgardeshi, Hessam, & Hamzehgardeshi, 2014), (b) displaying genuine interest for patients by spending additional time to provide relevant health information (Ware, Davies-Avery, & Stewart, 1978), (c) showing conviviality (Hallström & Elander, 2001), and (d) being kind-hearted, empathetic, supportive, and respectful to all patients (Beach, Saha, & Cooper, 2006; DiMatteo, Hays, & Prince, 1986). Cabana et al. (2014) evaluated the effects of a continuing medical education program aimed at achieving optimal patient health outcomes. Results from the study showed the program effectiveness in (a) improving physician communication skills with patients, and (b) reducing the number of asthma-related visits to the ER.

Relating Culturally Sensitive Health Care Models to the Literature

In past studies, culturally sensitive health care models have focused entirely on physician engagement in patient-centered, culturally sensitive health care (Wall et al., 2013). In 2007, Tucker et al. (2007), presented the patient-centered culturally sensitive health care (PC-CSHC) model to explicate the correlation between patients' adherence to treatment, and health outcomes in culturally diverse populations. The framework was developed from an existing literature review to help guide health research, including advancing medical activities aimed at increasing health promotion and reducing persistent health disparities among culturally diverse adult patients (Tucker et al., 2013). According to the PC-CSHC model, culturally sensitive health care should include (a) patient-centeredness, and a best practice approach embodies patient empowerment, (b) the display of desirable attitudes/behaviors amid physicians, and their entire staff, and (c) a collaborative patient-provider relationship (Tucker et al., 2013). Key components of the

model included interviewing adults of culturally diverse focus groups to identify attributes of culturally sensitive health care from the patient's perspective (Tucker et al., 2013).

Only a few empirical studies to date have indicated strong links between cultural sensitivity, cultural competency, medication adherence, and improved health outcomes amid racial-ethnic groups (Betancourt et al., 2005; Goode, Dunne, & Bronheim, 2006; Salganicoff, Ranji & Wyn, 2005; Thom & Tirado, 2006; Tucker et al., 2013). Almost all these studies enrolled large samples of African American, Hispanics, and Caucasian American patients to assess culturally sensitive interventions that encourage health promoting behaviors. However, such studies could offer strong implications for culturally sensitive interventions that increase medication adherence, promote positive health behaviors, and improve health status outcome for other racial-ethnic minorities (Tucker et al., 2013).

Tucker, Roncoroni, Wippold, Wall, and Marsiske (2017) suggested that quality health care should recognize the diversity of all patients, including their perceptions regarding the characteristics of a health care service or system. Furthermore, these researchers concluded that health care services or systems must consider whether patients feel comfortable and/or respected by their physicians which included other medical staff and office personnel (Tucker et al., 2017). To date, only a handful of studies have assessed how physician interaction and engagement affected the process of recommended treatment adherence among culturally diverse groups, as they tend to focus the attention primarily on disadvantaged African American and Hispanic patients (Neilson, Wall, &

Tucker, 2016; Wall et al., 2013). Even within these studies, the research was limited to only African American and Hispanics participants who were recruited from preselected health sites, and not randomly selected (Neilson, Wall, & Tucker, 2016).

The research conducted by Tucker et al. (2017) indicated that only recruiting volunteer patients from preselected health care sites to evaluate perceptions on the cultural sensitivity of physicians may result in an over-representation of patient outcomes, and thus, may cause a generalizability of the study findings. Neilson et al. (2016) asserted in their findings that it may be valuable for future studies to gather data on physician cultural sensitivity using different recruitment strategies, and from a variety of other sources, such as parents, close family members, friends, including office or medical staff. To fully understand how perceived cultural sensitivity of health care effects the lives of individuals. Wall et al. (2013) suggested that future studies that incorporate aspects of PC-CSHC models should include other racial-ethnic groups who may experience health inequalities. In previous studies, survey instruments to analyze PC-CSHC were only conducted in English and Spanish which limited study participation to patients who were literate in these languages (Neilson et al., 2016; Tucker, et al., 2017; Wall et al., 2013). Wall et al. (2013) emphasized the need to develop study materials in multiple languages when using similar constructs of the PC-CSHC model. Mason (1998) conducted a study to examine patient-physician language concordance as a key component in medication adherence among Spanish-speaking asthmatic patients. The researcher's findings revealed that patients not enrolled in bilingual concordant patient-provider dyad were more likely to (a) make repeated visits to the ER, (b) miss their

follow-up medical appointments, and (c) become non-adherent to physician recommendations or asthma medication.

Relating Existing Literature to the Problem

Patient-centered Research

Patient-centered research to improve health outcomes in adult patients with uncontrolled asthma has been pivotal for (a) reducing disparities, (b) lowering health care costs, (c)improving health care quality, and (d) influencing physicians' adherence to asthma care guidelines (Anise & Hasnain-Wynia, 2016). However, inconsistencies between parental care given to asthmatic children and physician recommendations regarding the care of children are multifold (Klok et al., 2015). Barriers to health care access and other social determinants can increase low adherence to prescribed asthma treatment, and in many cases nonadherence to treatment by patients can fluctuate up to 70% (Lindsay & Heaney, 2013). Thus, understanding the significance of parental adherence to asthma treatment is critical in furthering positive health outcomes (Brown et al., 2010). Patient-centered care for childhood asthma includes the ongoing collaboration between physician, patient, and their parents (Klok et al., 2015). However, patient-centeredness has not yielded the best results, especially for culturally diverse minority patients, specifically in the quality of chronic disease management, medication knowledge, and adherence (Klok et al., 2015; Tucker et al., 2011).

Currently, there is limited research on the use of patient-centered models that focus on smaller racial-ethnic populations, and their health disparities, specifically in terms of understanding how perceived cultural sensitivity in medical settings may impact

patient experience and treatment adherence (Wall, Tucker, Roncoroni, Allan, & Nguyen, 2013). Previously, studies on culturally sensitivity in health care highlighted the impact of physician-patient communication to improve asthma care, and treatment among underserved African Americans and Hispanics living in urban communities (Pinnock, 2015; Neilson et al., 2016; Wall et al., 2013). However, little is known about how parents may perceive physician cultural sensitivity, and if physician engagement increases asthma adherence to treatment regimens among different minority subgroups (Neilson et al., 2016; Wall et al., 2013).

The Parental Role in Managing Asthma

For all parents raising children with asthma, the responsibility of managing a long-term condition can result in stressful demands specific to the illness, such as maintaining health care regimes, financial stability, and supportive relationships (Smith, Cheater, & Bekker, 2015). As Harrington, Haven, Bailey, and Gerald (2013) emphasized, improving a parent's ability to manage physician recommendations is important in reducing health disparities as parents are typically charged with caring for their children until they reach adulthood. In the past, several explanatory studies have identified certain factors that describe how parents cope with managing their child's illness (Bonner et al., 2006; Cashin, Small, & Solberg, 2008; Knafl & Gilliss, 2002; Smith, Cheater, & Bekker, 2015; Thompson, Gustafson, George, Hamlett, & Spock, 1992; Wallander & Varni, 1998). These studies provided information on a wide range of contextual factors that contribute to how parents cope with and respond to a chronically ill child such as caregiver stress, healthy family functioning, the need for reliable health information, and

the desire for clinical empathy from their child's physician (Bonner et al., 2006; Vermaes, Jansens, Mullaart, Vinck, & Gerris, 2008; Wallander & Varni, 1998).

Smith et al. (2015) asserted that most of these descriptive studies did not indicate the burdens and high demands of parents who are caring for a child with a serious disease. Subsequently, there has been a growing body of research aimed at exploring the perceptions of parents in charge of managing their child's condition, including how these lived-experiences effect their response to the unpredictability or intensity of the illness, and how they may incorporate these perspectives into their family's life (Cashin, Small, & Solberg, 2008; Hallström & Elander, 2007; Smith et al., 2015; Tong Lowe, Sainsbury, & Craig, 2008). Understanding the unique perspectives of parents has the potential to help physicians become supportive, and more sensitive to meet the parent's needs in their role as caregiver (Smith et al., 2015). Recent research on the informational needs and preferences of North American parents with asthmatic children called for more comprehensive asthma education and supportive resources (Archibald & Scott, 2014). Yet, research aimed to explore how parents of asthmatic children perceive their own needs, urgencies to asthma care or barriers to asthma knowledge is limited (Archibald, Caine, Ali, Hartling, & Scott, 2015). This lack of understanding poses additional questions on how parents feel about their child's lifelong condition, the daily burdens of providing asthma care, and how these personal views can impact treatment adherence (Archibald et al., 2015).

Conceptualizing Physician Engagement

Kaissi (2014) analyzed different international models of physician engagement but proposed a new integrative framework for improving physician engagement in Canada, the United Kingdom, and the United States. Kaissi (2014) intellectualized physician engagement as a continuous, 2-way social process consisting of adaption and accommodation of which the interaction between individuals, their organization, and culture are always considered. Kaissi (2014) also suggested that organizations should focus on strategies that will bring physicians, their medical staff, and patients into a harmonious position of full engagement that aims to advance clinical practice, enhance patient experience, and improve health outcomes. According to the National Health Service, Health Education England (2017), advanced clinical practice includes the ability of physicians to oversee the complete clinical care of their patients by engaging in partnerships with them, and/or their caregivers. Tucker et al. (2011) posited that physicians who respond to their patients' needs through engaging behaviors should embody clinic characteristics built on clear communication, mutual trust, understanding, and respect. Alexander, Sayla, and Wynia (2008) developed a conceptual model of engagement to assess different levels of engagement among a diverse group of American physicians, and concluded that with commitment highly engaged physicians can work collaboratively to address ethnic-racial health care disparities through education, health research, and patient advocacy. It includes the analysis and synthesis of complex problems across a range of settings, enabling innovative solutions to enhance patient experience and improve outcomes.

Conceptualizing Patient-Centered, Culturally Sensitive Health care

The study conducted by Tucker et al. (2011), concluded that highly engaged physicians involved in their patient's well-being are more likely to implement patient-centered, culturally sensitive health care in their medical practice. Tucker et al. (2011) defined patient-centered, culturally sensitive health as the demonstration of:

Patient-desired, modifiable provider and staff behaviors and attitudes, implementing health care center policies, and displaying physical health care center environment characteristics and policies that culturally diverse patients identify as indicators of respect for their culture and that enable these patients to feel comfortable with, trusting of, and respected by their health care providers and office staff. (p. 342)

Tucker et al. (2007), presented the Patient-Centered Culturally Sensitive Health Care (PC-CSHC) Model to explain the link between patients' adherence to treatment, health promoting behaviors and health outcomes in culturally-diverse populations. The authors asserted that patient-centered, culturally sensitive health embodies patient empowerment. Some researchers assert that patient-centered, culturally sensitive health can be strongly linked to positive health behaviors and outcomes for all populations, but more specifically racial-ethnic groups facing disparities (Davis, Schoenbaum, & Audet, 2005; Safran & Firminger, (2005); Tucker et al., 2011). Yet, others have purported that physician cultural sensitivity is negatively linked with racial-ethnic disparities in health outcomes (Betancourt, Green, Carrillo, & Park, 2005). A meta-analysis by Underdahl, Jones-Meineke and Duthely (2017) discussed the relationship between physician engagement, job satisfaction, and burnout for practicing doctors. The researchers also

examined the need to reframe physician engagement in the United States as physician burnout increased by 10% from 2011-2014 which could lead to (a) physician turnover, (b) disruptions in the continuity of patient care, (c) breakdowns in patient safety, and (d) decreased profitability in functioning medical settings.

Summary

This chapter included an exhaustive search of theories, models, and research that relates to ideas of parental perceptions of physician cultural sensitivity and parental care to asthma treatment adherence. The focus of Chapter 2 captured the significance of perceived physician communication behaviors in relation to culturally sensitive health care, medication adherence, and physician asthma regimen recommendations. Additionally, the chapter laid the foundation for examining the stories of parents, and whether a relationship between parental perceptions of physician cultural, parental care, and adherence in asthma treatment across diverse minority groups in Denver, Colorado. Participants in this mix-methods study will contribute to the field of public health by revealing their personal experiences of managing their child's asthma with support from physicians who are culturally sensitive to their family's needs. Overall, Chapter 3 provides the groundwork to begin the comprehensive process of gathering and analyzing data from culturally-diverse parents who want to share the perceptions of their experiences.

Chapter 3: Research Method

Introduction

As presented in the literature review, there is a gap in knowledge about whether a relationship exists between parental perceptions of physician cultural sensitivity and parents' adherence to prescribed treatment for their asthmatic children. Therefore, I conducted a mixed-methods study with a focus on different racial, ethnic minority groups living in the Midwestern region of the United States, specifically Denver, Colorado. This chapter details how specific qualitative and quantitative methods were used to examine whether physician cultural sensitivity as perceived by minority parents influences the parental care of their asthmatic children, including parents' asthma adherence behaviors. This chapter outlines (a) participant recruitment and selection (i.e., inclusion and exclusion criteria), (b) the phenomenological method used to explore the commonalities in the subjective experiences of study participants, (c) the implementation of previously validated and pilot-tested survey-questionnaires to further explore parents' reports of pediatric physician care experiences, (d) the research setting, (e) previously validated questionnaires and scales, (f) instrumentation, (g) my role as researcher, (h) the measures taken to protect all participants, and (i) data collection and data analysis.

Study Setting

For the purposes of this mixed-method study, multiple settings were identified and used to collect information from participants who met the qualifying criteria. The success of recruitment depended on considerations taken to select the most suitable recruitment locations: (a) identifying certain barriers that could delay recruitment

activities across ethnic groups and neighborhoods, and (b) forming liaisons with community gatekeepers and/or agencies that serve the needs of diverse populations. All recruiting and search strategies were conducted in the City and County of Denver, Colorado. Prospective participants were invited to partake in the study via recruitment flyers, online bulletin boards, and one social media site (Facebook), with an initial approach of targeting local community centers, faith-based organizations, and parent support groups in Denver. Quantitative questionnaires and surveys were administered to participants in various ways: a) through electronic message to a secured e-mail account; (b) online with access to SurveyMonkey (https://www.surveymonkey.com/), an online survey tool, and (c) through researcher-respondent interaction (in person or by phone). To assess the results and accuracy of survey reports, I made comparisons between individual survey responses from more than two participants based on the different quantitative collection instruments used. Additional details on recruitment techniques and sampling are presented in the next sections.

Research Design and Rationale

The goal of this mixed-methods study was to explore whether there is a relationship between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence. Overall, this study focused primarily on (a) how parents perceive physician cultural sensitivity, (b) whether parents' preexisting beliefs toward culturally sensitive medical care influences their self-efficacy to manage their child's asthma care and treatment according to physician recommendations, and (c) understanding the role and responsibility of disease management in asthma care

behaviors, including the subjective experiences of minority parents with asthmatic children. The rationale behind this dissertation is distinctive because it addresses an underresearched area in public health that focuses on the perceptual views and experiences of minority parents regarding the cultural sensitivity of physicians, specifically among racial and ethnic minority subgroups that have been historically underrepresented in the existing literature and those individuals who may be affected by the health inequalities in urban areas. The main purpose of this mixed-methods study was to address the following research questions:

RQ1: Qualitative: How do minority parents of asthmatic children in Denver perceive the cultural sensitivity of their children's physician?

RQ2: Quantitative: Does physician engagement (communication style, visitation length) correlate with minority parents' adherence to prescribed asthma treatment for their asthmatic children?

H_0: Physician engagement and adherence to prescribed asthma treatment are independent.

H_a: Physician engagement and adherence to prescribed asthma treatment are not independent

RQ3: Quantitative: Is physician cultural sensitivity associated with the asthma management beliefs and care behaviors of minority parents caring for their asthmatic children?

H_0: Physician cultural sensitivity and asthma management beliefs are independent.

H_a: Physician cultural sensitivity and asthma management beliefs are not independent.

For the qualitative part of this research, phenomenology was the most appropriate methodology for exploring the lived experiences of ethnic minority parents who may share similar views relating to (a) physician cultural sensitivity, (b) physician engagement, and (c) adhering to prescribe asthma treatment for their asthmatic child. Based on early 20th century philosophy, phenomenological research is interested in how individuals view, experience, and understand the world they live in (Davidsen, 2013; Sutton & Austin, 2015). Renowned as the "father" of phenomenology, Edmund Husserl's philosophical influence is based on an attempt to understand (a) the systematic process of reflection, (b) structures of conscious experience from the first-person perspective, (c) how phenomena in/of the world appear in the subjective acts of consciousness, and (d) how the daily dynamics of experience are established by human consciousness (Davidsen, 2013).

Deeply rooted in highly descriptive interviews and in-depth data analyses, phenomenology aims to yield helpful insight into the life experiences of humans, including the meanings individuals hold about past or present life events, such as the

feelings they attribute to their personal experiences (Giorgi & Giorgi, 2008; Starks & Trinidad, 2007; Sutton & Austin, 2015). With a focus on developing rich descriptions of lived experiences, phenomenological research seeks to extract the underlying meaning or true essence of those experiences, giving emphasis to human "consciousness where experiences contain both the outward appearance and inward consciousness based on memory, image and meaning" (Creswell, 1998, p. 52). The process of capturing a person's lifeworld experience through rich descriptive analysis allows researchers to inquire, deeply connect with, and understand a person's subjective and intersubjective views about the phenomena in question (Sutton & Austin, 2015; Von Eckartsberg, 1998a).

As Creswell (2013) posited, the ability to accurately describe the human experience as articulated in the "lived and told stories of individuals" (p. 70) aims to provoke a deeper awareness into "what they experienced and how they experienced it" (p. 76). According to Von Eckartsberg (1998b), the essence of phenomenology includes a reflective analysis of unearthing and clarifying human experiences, including the meaning behind those experiences "as they spontaneously occur in the course of daily life" (p. 3). Therefore, when taking a phenomenological approach, the objective is to transcribe a "rigorous description of human life as it is lived and reflected upon in all of its first-person concreteness, urgency, and ambiguity" (Pollio, Thompson, & Henley, 1997, p. 5). Once a researcher has identified the "object of human experience" (Van Manen, 1990, p. 163), data are collected, grouped into general themes, analyzed for all possible meanings, and compared to the phenomenon (Finlay, 2009). According to

Creswell (2013), the main objective of phenomenological data analysis starts with a methodology of "reducing individual experiences with a phenomenon to a description of the universal essence" (p. 76).

Stewart and Mickunas (1990) asserted that phenomenology is a philosophy without presuppositions. Using phenomenological reflection during the analytical phase of investigation allows researchers to better understand the phenomenon, all while "grasping the essential meaning of something" (Van Manen, 1990, p. 77). However, before the reflection process can begin, researchers must put aside their predispositions by acknowledging or eliminating any "prejudices, viewpoints, or assumptions regarding the phenomenon under investigation" (Patton, 2002, p. 485). By bracketing out preconceptions about the phenomenon under study, researchers can (a) withdraw from their natural attitude, (b) be open-minded and acceptive of the participants' experiences, and (c) balance subjectivity and objectivity to help identify relevant data without extraneous interferences (Davidsen, 2013). The goal of phenomenological analysis is to examine the lived experiences of individuals through thick descriptions and the complex process of forming understanding, without imposing another person's suppositions or interpretation biases on the study (Davidsen, 2013; Laverty, 2003). In phenomenology, differences in viewpoints or shared commonalities of a phenomenon should stem from the insights of study participants and should never result from the researcher's personal opinions about the issue under analysis (Creswell, 2013; Davidsen, 2013; Patton, 1990). Considering this, researchers can begin the process of meaning condensation by (a) identifying themes, (b) systematically dividing written text into meaning units, (c)

condensing meaning through thematic coding across individual participants, and (d) generalizing composite descriptions into emerging themes and concepts (Davidsen, 2013; Malterud, 2012).

For the purposes of this mixed-methods study, a convergent parallel design was employed. As a method, the design takes an insightful approach whereby both qualitative and quantitative data are collected concurrently, analyzed independently, and then interpreted to yield triangulated results about the same underlying topic (Creswell & Plano Clark, 2011; Onwuegbuzie & Leech, 2006). The rationale behind integrating both qualitative and quantitative data is to better understand the research problem by converging (a) richly detailed descriptions of parents' experiences with physician cultural sensitivity and (b) numeric trends associated with adherence and asthma burden among minority children. As Morse (1991) discussed, the main purpose of the convergent parallel design is to achieve "different but complementary data on the same topic" (p. 122). For example, in a study conducted by Crabtree et al. (2005), qualitative and quantitative findings were applied iteratively throughout different phases of the project, such to an extent that correlations within the data informed the results. To increase validity, Wagner et al. (2012) suggested "reconciling incongruous qualitative and quantitative findings in mixed methods research" (p. 54) using triangulation. Creswell and Plano Clark (2011) posited that using triangulation to integrate multiple data sources allows the researcher to evaluate and contrast "quantitative statistical results with qualitative findings, or to validate, or to expand quantitative results with qualitative data (p. 62). In phenomenology, a researcher might employ triangulation by using thematic

coding to highlight pertinent information relating to the lived-experiences of individuals, and the meanings they hold about life events (Finlay & Cooper, 2014). This type of triangulation is supported by interpretative phenomenological analysis with rich descriptions, linguistics, and conceptual meanings (Finlay & Cooper, 2014).

In the quantitative aspect of this study, previously validated surveys and questionnaires was administered to collect data. However, to ensure the cultural sensitivity and contextual relevance of minority parents involved in this research project all questionnaires will be slightly modified. To establish questionnaire functionality, its constructs, and content validity a series of pilot tests was conducted. This process aimed to ensure that all questions are relevant to the specific needs and/or lived experiences of minority parents involved in this study. Moreover, I analyzed the differences in how parents perceive physician cultural sensitivity, and if these perceptions influence parents' adherence to asthma treatment recommendations. In terms of this mixed-methods study, data collected from both qualitative and quantitative research techniques was analyzed separately, merged for interpretation, and then summarized. However, Creswell and Plano Clark (2011) postulated that merging qualitative and quantitative findings during data analysis should always relate back to the research questions. Details on data analysis techniques are explained later in this chapter.

Role of Researcher

To generate rich contextualized descriptions, researcher involvement in phenomenology is often limited to eliciting the lived experiences of study participants and listening attentively to their narrative perspectives (DePoy & Gitlin, 2015; Paul,

2017). According to Singer and Rexhaj (2006), stories are made to be told. It is not unusual for people of all ethnicities and different socioeconomic backgrounds to tell their life-stories in hopes of sharing information, making solid connections, or feeling understood by others (Singer & Rexhaj, 2006). For the purposes of this project, my role as researcher consisted of arranging a convenient, quiet space that is was free from distractions for parents to share their life experiences and explore the meanings of how or why their perceptions of physician cultural sensitivity may affect their parental care and adherence to prescribed asthma treatment for their asthmatic children. By tradition, research focusing on children with complex health and palliative care needs has been effectuated by collecting data from the children's parents/guardians, other relatives, non-family adults, educators, and health care professionals (i.e., physicians and nurses) (Del Melo et al., 2008; Woods & Linderman, 2008). According to De Melo et al. (2014), it is the role of the researcher to recognize the different needs of parents with chronically-ill children by grasping every detail about the parents' experiences, including perspectives on parental rights and responsibilities in care activities.

To analyze the meaning of an experience, subjectivity on the part of researchers, and of those being interviewed is an essential component of the research process (Flick, 2014). Sutton and Austin (2015) posited that qualitative work requires the researcher to reflect prior to, and throughout the study. Flick (2014) denoted that these reflections should embody the researcher's "actions and observations in the field, their impressions, irritations, feelings, and so on" (p. 17). A researcher's perspective and reflections are critical elements of rigorous inquiry and should "become data in their own right, forming

part of the interpretation" (Flick, 2014, p. 17). According to Flick (2014), insight occurs when researchers can extract the meanings associated with the phenomenon under investigation and can make sense of these data-derived perceptions. However, this insightfulness should be documented in a journal to chronicle the history of one's research process as it unfolds (Flick, 2014). Researchers who are critically reflective can provide contextual meaning and understanding "so that readers can better understand the filters through which questions were asked, data were gathered and analyzed, and findings were reported" (Sutton & Austin, 2015, p. 226).

Guion, Diehl, and McDonald (2011) denoted that a good listener is one who can focus on the speaker until "the message has been received, or the speaker has finished speaking" (p. 2). By making eye contact, writing notes, and paraphrasing the interviewee's words for clarity the person can begin to open up and feel more comfortable about sharing his or her private thoughts (Guion et al., 2011). As Ezzy (2013) pointed out, a great interview involves a productive interchange of valuable information that helps to create deep insight through a sequence of questions and responses. However, to reduce or eliminate the risk of introducing bias into my study, I kept my interview questions, tone of voice, facial expressions, and body language neutral. During the interviewing process, researchers should be cognizant of how information is solicited (Pannucci & Wilkins, 2010). Therefore, I framed each question appropriately without conveying any positive or negative expectations during the interview and will not offer any opinions to the study participants. Additionally, a research diary was kept on the history of this project. During the data collection process, I digitally recorded all

interviews and transcribed each interview to capture the intuitive distinctions of meanings as expressed in lived and told narratives of participants. Before analyzing the collected data, participants received a narrative of their transcribed interviews. Subsequently, all participants were asked to review their respective document for accuracy and invited to make corrections for additional clarity which were then analyzed, interpreted, and integrated into the final descriptions.

As Stuckey (2014) posited, interview transcription plays a major role in establishing the accuracy and dependability of the data being analyzed. Furthermore, Yin (2009) asserted that when interviewees are given timely access to their interview transcripts to highlight inaccuracies, or to provide researchers with clarification of meaning these corrections can increase the study's accuracy and construct validity. According to Ezzy (2013), when researchers check their interpretations with the person being interviewed it helps to ensure that they are genuinely listening to the participant's words. From this, researchers can compare, contrast, look for patterns, or seek out additional data to support emerging themes that will draw "inferences from the links between new data segments, and a cumulative set of conceptualizations" (Ezzy, 2013, p, 10).

Finding varying degrees of similarity among participants requires a fairly homogeneous sample, from which the research questions will become meaningful to study (Smith, 2011). Smith (2011) denoted that sample size sensitivity and specificity depends on the phenomenon under investigation, and the researcher's ability to gain access to participants with similar characteristics and experiences. Sample-specificity

should relate to researcher's current study as this enables the reader to make connections between the analysis, their own life experiences, and assertions made in the literature (Smith, 2011). Hence, to fully capture the homogeneity of the participants, several factors were considered, for example the (a) parent's ethnicity family's geographical location, (b) child's diagnosis, (c) asthma severity, and (d) current treatment of asthma.

As Smith (2011) explains, the interpretive nature of phenomenological analysis requires the researcher to attend to the participants' real-world experiences, and then develop thick descriptions to help elucidate how it feels to be that person in a particular context. Conducting phenomenological analysis enables the researcher to gain insight from participants by employing intellectual curiosity, cultural empathy, open-mindedness, and flexibility (Ezzy, 2013; Flick, 2009; Smith, 2011). When conducting a phenomenological study, Creswell (1998) recommended a sample size of 5-25, and Morse (1994) proposed a sample size of no less than six. According to Marshall (1996), the number of participants required for a study will become apparent as the project starts to take shape, progresses, and then data saturation occurs for example, when "new categories, themes, and explanations stop emerging from the data" (p. 523).

To determine a representative sample size for this research project, the selected sample size must be large enough to distinguish a real relationship or difference in the phenomenon (Mertler, 2018). For the quantitative aspect, a much larger sample size was required to enable the generalization of the study results. Mertler (2018) emphasized that determining the ideal sample size for quantitative research depends on "nature of the study, the research questions guiding the study, the specific makeup of the population to

which the results are generalized, and many other similar decisions" (p. 199). Creswell (2013) recommended a minimum sample size of 350 individuals when conducting a survey research study. Gay, Mills, and Airasian (2009) advised surveying at least 10% to 20% of the studied population. However, Gay et al. (2009) cited that these percentages may differ due to varying factors within the target population. Gay and her colleagues (2009) presented several recommendations for determining an adequate sample size for quantitative studies that include a survey research design, for example (a) with smaller populations (i.e., $N < 100$), there is no justification for sampling at all, and thus the whole population should be studied for internal/external validity, (b) when the population size is comprised of 500 individuals, or $400 < N < 600$, then at least 50% of the population should be sampled, resulting in the "n" being between 200-300 participants, (c) if the population size peaks roughly 1,500, then at least 20% of the population should be samples, resulting in an "n" equal to 300 participants, and (d) when the population size reaches beyond $N = 5000$, the size itself becomes irrelevant, and a sample of 400 would be ideal. Increasing the sample size past this point is not required; however, attaining a greater number of participants will increase the confidence by which the researcher can generalize the study results.

Methodology

Participant Selection

The participants involved with this study consisted of five ethnic minority parents and one legal guardian grandparent living in Midwest region of the United States. To understand the characteristics of the population under inquiry, a key objective of this

study was to produce representative samples that offered an in-depth, contextualized understanding about whether physician cultural sensitivity as perceived by minority parents affects parental adherence to prescribed treatment for their asthmatic children. For the qualitative aspect of this research project, nonprobabilistic purposive sampling was employed to identify participants based on geographic proximity, ethnic group designation, and availability following approval by the Institutional Review Board (IRB) at Walden University. With respect to geographical proximity, potential participants must live within the City and County of Denver, Colorado. In terms of selection criterion, racial-ethnic identification was necessary as it reflected the complex ancestral, tribal, and communal origins of different ethnolinguistic groups living in Denver. The identification and recruitment of potential participants was matched based on certain inclusion criteria (a) race/ethnicity, (b) city of residence, (c) parent must be over the age of 18, (d) child must have a diagnosis of asthma from a health provider, (c) child must use an inhaler or other medications at home, and (d) parent has attended (with asthmatic child) 1 or more visits with primary physician, or to urgent care, or the ER within the past 12 months. During the screening process, exclusion criteria for participation included (a) parents of children with other congenital respiratory, wheezing illnesses, or other co-morbidities that might affect lung functionality (i.e., cerebral palsy, muscular dystrophy, sickle cell anemia, or cystic fibrosis), and (b) individuals who do not racially or ethnically identify themselves with being a minority parent of an asthmatic child. For the purposes of this study, snowball sampling was used as a subset of purposeful sampling. Using this method has advantages, especially when potential participants are difficult to locate. As a

recruitment technique, snowball sampling may be implemented when one participant from the target population is properly identified, interviewed, and then recruited to help refer other potential participants from that same population (Robson, 2011). Kosinski et al. (2015) postulated that using this approach allows for a good introduction to conduct the next interview with little-to-no cost for the researcher.

For the quantitative aspect of this study, convenience sampling was employed. Based on accessibility and proximity to the research project, the most convenient individuals were recruited in a continuous manner until the proper sample size is achieved (Robson, 2011). Based on the United States Census Bureau (2018) calculations, the estimated population within the City and County of Denver reached 693,060 in July of 2016. The proportion of Caucasians alone (not Hispanic or Latino), made up 54 % of the total population in Denver in 2016 (United States Census Bureau, 2018). However, ethnicity is the prime factor for recruiting potential participants for this study. Hence, by demographics, the diverse ethnic population in Denver includes (a) 3.9% Asian; 10% African American, (b) 30.2% Hispanic or Latino, (c) 0.2% Native Hawaiian/Pacific Islander, (d) 1.9% Native American/Alaskan Native, and (e) 3.1 % two or more races combined (United States Census Bureau, 2018). Based on the demographic estimations, the composition of Denver's ethnic-minority population, excluding Caucasian alone totaled 49%. According to the United States Census Bureau (2018), the total population of children living in Denver under the age of 18 years old was estimated at 20.7%. Because children are not the primary focus of this study, this population was excluded for calculating the sample size. To obtain the total adult ethnic-minority population in

Denver by whole numbers, 20.7% (the total population in Denver of people under 18 years old) was multiplied by 693,060 (the total population in Denver), which totaled 143,463. Forty-nine percent (the total population in Denver including Caucasians) was then multiplied by 143,463, which calculated to be 70,297. Calculating the total ethnic-minority population (excluding Caucasians) was necessary to find the most appropriate sample size, using a confidence level of 95%, and a confidence interval of 5%. In this case, the confidence level of 95% indicates a degree of certainty that the study results will fall within a specified range of values. A 5% confidence interval was selected within the confidence level to provide a plus-or-minus (+) margin of sampling error. When using the confidence level of 95% and a 5% confidence level together, it is assumed that the results will be accurate within a margin of sampling error of + 5%. To determine how many participants to survey and to obtain results that accurately reflect the target population under inquiry, a web-based sample size calculator designed by Creative Research System (https://www.surveysystem.com/sscalc.htm) was utilized to obtain a proposed sample size of at least 168 individuals (Figure 1). However, according to Fink (2002), researchers should take a realistic approach about their proposed sample by anticipating the percentage of individuals who cannot participate due to unexpected circumstances. According to Dillman (1978) and Fowler (1988), survey response rates greater than 75% will usually produce reliable results. Osborne (2008) also posited that "a 75% response rate is the minimum to consider data adequate" (p. 143). Therefore, the sample size was adjusted to at least 304 individuals to account for non-responses.

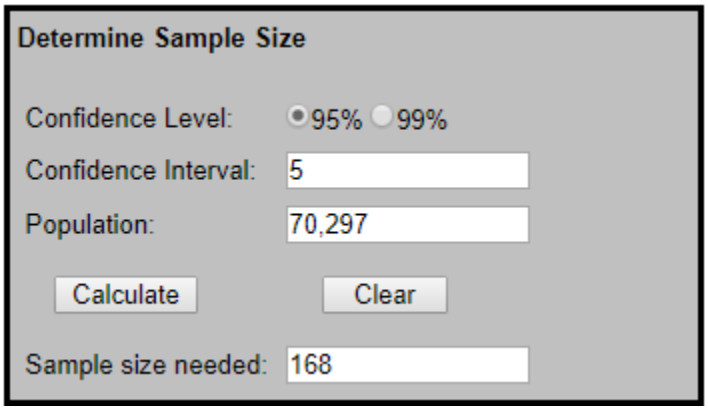

Figure 1. Sample size calculator for quantitative study. Photocopied from "Sample size calculator" by Creative Research System, 2018, Retrieved September 10, 2018, from https://www.surveysystem.com/sscalc.htm#one

For the purposes of this study, potential participants were required to reside within the city limits of Denver which will be substantiated with proper identification. Due to the ethical implications for recruiting participants when a language barrier exists, participants were required to speak and read English fluently. Also, participants were at least 18 years of age at the time of recruitment and where be excluded based on gender. All participants enrolled in this study were prescreened to ensure that the general eligibility criteria were met accordingly.

To facilitate the recruitment of participants for both studies, invitations were provided simultaneously thru different social media outlets and flyers advertised in public places. In the application of snowball sampling, invitations will be given to current participants at the end of their interviews to assist in recruiting future participants. In terms of using social media for recruitment, a recurring post was created on Facebook specifically for both aspects of this study. Additionally, the "participant pool bulletin board" at Walden University, was used to increase research participants. Each recruitment tool included a link that connects potential participants directly to the

Facebook site. Using these data collection instruments required a comparison of results based on respondent source. For cohesion and continuity purposes, the Facebook page and printed flyers were similar in terms of (a) the visual appearance, (b) the criteria needed for eligible participants, and (c) other contextual content (see Appendices C and D). Existing and prospective participants were able to contact me via my personal e-mail, or through a designated phone number.

Qualitative research was pertinent to the nature of this study. Hence, to explicate how this viable research will emerge, in-depth individual interviews with different racial-ethnic parents using semi-structured topic guides were analyzed. Data collected regarding parental perceptions were grouped, analyzed, and compared to whether these views or lived-experiences determines adherence to asthma treatment. Patton (2002) asserted that that there are no rules for solidifying a sample size in qualitative inquiry. However, Polkinghorne (1989) and Creswell (2013) both recommended that researchers should interview between 5-25 individuals who have experienced the phenomenon under inquiry, which in this case—parental perception of physician cultural sensitivity and parental adherence to asthma treatment. Morse (1994) suggested a sample size of at least six study participants, particularly in phenomenological studies. Glaser and Strauss (1967) posited that using theoretical saturation as a guiding principal is necessary for achieving a suitable sample size. Here, saturation will be determined when the collection of new data no longer offers additional understanding to the phenomenon being studied (Glaser & Strauss, 1967). As part of this mixed-methods study, a convergent parallel design was implemented. Therefore, individuals who participate in the qualitative part of

the study are not eligible to participate in the quantitative part. After participants complete their qualitative interviews, participants received a prepaid $10.00 cash card as compensation for their involvement in this study.

For the quantitative element of this study, the recruitment of 304 minority parents living in the City and County of Denver was proposed to compensate for any non-respondents. As stated previously, I used a web-based sample size calculator to establish how many participants to survey and to attain results that will accurately reflect the target population under study. Although a proposed sample size of at least 168 individuals was calculated (Figure 1), a practical approach was taken to account for non-responders, and thus, the sample size was increased by 136. Participants were recruited using social media and recruitment flyers, as mentioned above. All surveys-questionnaires were administered online with access to SurveyMonkey, an online survey tool. Once a participant completed the questionnaire, the survey window closed automatically. However, participants were informed beforehand that their participation in this research was completely voluntary. Therefore, the participant had the option to withdraw from the survey at any time. Also, as a research participant, they could choose not to answer any uncomfortable questions. The respondent's involvement in the survey only require one interview session. Unlike the qualitative interviews, no financial compensation was offered for participating in the quantitative part of this study. However, the respondents' participation will be of great value to my research, as the findings may lead to a greater public understanding of physician cultural sensitivity in patient-centered health care.

Instrumentation: Qualitative Interviews

The qualitative element of this study included in-depth interviews to gain a thorough understanding of whether there is a relationship between parental perceptions of physician cultural sensitivity as it relates to parental adherence to asthma treatment. The aim of qualitative interviewing is to allow each participant to express themselves freely, in their own words, and on their own terms (Agee, 2009; Turner, 2010). When conducting qualitative inquiries, the researcher should ask the type of questions that centers "on the why and how of human interactions" (Agee, 2009, p. 431). As Jansick (2015) denoted, questions are instruments that aim to drive the interviewing process. Of course, asking each participant the right types of questions helps to manage the flow and exchange of pertinent information. As Creswell (2007) posited, good qualitative questions should include a process of exploration, discovery, development, and refinement. Therefore, a researcher should never begin his or her interview with overly-focused questions (Agee, 2009). Starting off this way could "lead to tunnel vision and inhibit a researcher's understanding and analysis" (Agee, 2009, p. 431). Because this study is unique, the interview guide entailed semi-structured, open-ended interview questions (Appendix G). Using this qualitative technique gave me the opportunity to obtain additional information, engage, and expand the discussion to clarify meaning of expressions given by each participant (Polkinghorne, 2005; Sutton & Austin, 2015). Before disseminating the final version of the questions to participants, a pretest of the materials will be used to produce several reference questions. This process helped with identifying "any questions that are ambiguous, are misunderstood, make respondents feel

uncomfortable, or where respondents feel they need to say something extra" (Durand & Chantler, 2014, p.118). Reid, Flowers, and Larkin (2005) posited that open-ended or semi structured interviews are successful when the researcher follows a specific set of predefined questions. All interviews were digitally recorded, with consent from each participant, and will be referenced if questions or expressions with ambiguous meanings emerge in response scripts. To test the validity and credibility of the research findings, data triangulation will be "exercised to decide whether results have converged (Jick, 1979, p. 602).

Instrumentation: Quantitative Survey-Questionnaires

To decrease response bias and maximize response rates of the quantitative survey-questionnaire, a pilot test was conducted with five participants. According to De Vet, Terwee, Mokkink, and Knol (2011), the purpose of pilot testing is to evaluate the usability, credibility, readability, practicability, acceptability, and comprehensiveness of the existing survey instrument. The iterative process of pilot testing aims to refine the researcher's data collection plan, including the development of interview questions that are relevant to the researcher's agenda and applicable to potential participants (Creswell, 2003; Yin, 2003). During the preliminary phase of developing the quantitative survey questionnaires, the materials will be disseminated to a small group of trustworthy individuals (i.e., fellow scholars; experts representing the academia or scientific community with at least 5 years of experience). Because individuals tend to procrastinate when completing surveys, choosing the best way to administer the pilot-test is crucial (Edford, 2014). Therefore, the instrument was distributed (a) in-person to the expert

panel, (b) by e-mail, (c) during a scheduled face-to-face or telephone interview, and (d) through postal parcel in paper form. For individuals taking the pilot test online, access to SurveyMonkey (https://www.surveymonkey.com/) was provided. Based on the panel's feedback, the survey instrument was revised to include their suggestions. Afterwards, a small sample of six individuals were selected to complete the refined survey.

The Survey-Questionnaire

When drafting this survey-questionnaire, it was difficult to identify the ambiguity of certain words, and the denotations of linguistic expressions. Therefore, pretesting and piloting the questionnaire will be a critical step in the development process. For the quantitative aspect of this mixed-methods study, a preliminary test was performed to authenticate the functionality, construct, and content validity of the questionnaire. To ensure the salience of this survey, a panel of five experts from different disciplines were assembled to assess the face validity of the questionnaire, and to ensure that all questions were culturally sensitive to racial-ethnic parents for list of the panel members by discipline). During the pilot testing process, the reviewers provided insight into the survey's strengths and weaknesses (i.e., design and usability). For example, the panel approved the same questions, but suggested making a shorter version of the survey. To eliminate respondent confusion, the questionnaire was kept uncomplicated, and free from medical jargon, acronyms, or initialisms.

After drafting a preliminary version of the questionnaire, another review of the instrument was conducted. This assessment ensures that the pretest sample of each survey-question complements the qualitative part of this study, for example the

phenomenological interview questions. However, to facilitate data annotation and quantitation the survey questions were closed-ended, using a four-category Likert scale format, ranging from 1 = strongly agree to 4 = strongly disagree, such that the lower scores denoted greater parental satisfaction with their child's physician. Additionally, a few multiple-choice questions were added to allow participants to select one or multiple options from a list of possible answers. Reliability and validity are principal concepts in qualitative studies as they are used to assess the accuracy of an instrument (Tavakol & Dennick, 2011), which in this case was a modified survey-questionnaire. To ensure cultural sensitivity and relevance to diverse parents from the minority community, an adapted version of Tucker's, Culturally Sensitive Health Care Provider Inventory-Patient Form was generated. Implementing this instrument could present some challenges because, as a modified questionnaire, assurances regarding its validity, appropriateness, and comprehensibility may be lacking. Hence, pretesting was required to ensure salience of questionnaire to the target population, including its administrative ease, flow, and appeal.

Recruitment, Participation, and Data Collection

Moustakas (1994) posited that the role of researchers is fundamental because they serve as the primary tool for data collection and analysis. When researchers become the instrument for data collection and analysis, they must be meticulous and trustworthy when generating useful results (Nowell, Norris, White, & Moules, 2017). In terms of this study, the Walden University's IRB (a) carefully reviewed and critiqued the methods used to obtain informed consent, (b) ensured that I disclosed the aspects of the study that

might be of interest or concern for a potential participant, and (c) made certain that information is presented in a way that participants can easily understand. Once IRB approval was granted (11-14-18-018864), participant enrollment and data collection were underway. To facilitate the recruitment of all participants, invitations were circulated for both studies using Facebook, the snowball method, the "participant pool bulletin board" at Walden University.

For the qualitative element of this study, participant recruitment involved snowball sampling to obtain access to diverse minority parents living in Denver. After the study's objectives were delineated to participants and informed consent forms were signed, I proceeded with conducting the one-on-one interviews, and with disseminating the survey-questionnaire online. Before participating in the qualitative interviews, respondents were given additional time to ask questions before signing a copy of their consent form. For those who agreed to participate in the phenomenological part of this study, I provided a signed copy of their consent form and assigned pseudonyms to protect the confidentially of each interviewee. To maintain a level of proficiency and exclusiveness, an e-mail address and phone number were provided to individuals who responded to the interview invite. An estimated time for conducting each interview ranged from 45 to 60 minutes. In addition, all interviews were held inside a quiet and well-suited location chosen by the participants.

Upon the discovery of apparent ambiguity in participant responses, a follow-up may be required for further explanation. Hence, participants were informed in a timely manner about scheduling an extended interview-discussion. Upon concluding the

interview, and to show an appreciation of thanks—a $10 Visa gift card was provided as compensation for individuals who participated in the qualitative part of the study. For individuals who agreed to complete the quantitative survey-questionnaire online, the signed letter of consent was verified to reflect the participant's willingness to partake in this study. All research that included the collection of data from any interaction with study participants, were stored electronically using Google Cloud Datastore. In addition, all qualitative interviews were digitally recorded and duplicated to serve as a backup for any unforeseen issues, for example transcriptionist errors.

Data Analysis

For the purposes of this study, I explored parents' perceptions of physician cultural sensitivity, their current asthma knowledge, and the barriers they encounter when adhering to asthma treatment for their minority children. Smith and Firth (2011) emphasized that before conducting a study, the researcher should plan accordingly, particularly in how (a) the collected data will be retrieved and stored, (b) descriptive or interpretative data will be systematically coded during the data analysis phase, and (c) to prepare a scholarly report which summarizes the study findings. Nowell et al. (2017) explained that readers must clearly understand the process of "how researchers analyzed their data or what assumptions informed their analysis" (p. 2). Therefore, researchers should make good decisions in the techniques they employ, particularly when systematically coding, conducting thematic analysis, decontextualizing, memoing, and re-contextualizing pertinent data (Nowell et al., 2017; Starks & Trinidad, 2007). To organize data sources into a collection of key phrases, patterns of primary themes, and potential

subthemes Microsoft Excel and Word software was used to document the analysis of words, for example keywords-in-context or word-repetitions. According to LaPelle (2004), simplifying qualitative data analysis using Microsoft Word is beneficial for retrieving coded text segments; building a hierarchy list of "code categories via indexing, global editing of theme codes, coding of 'face sheet' data, exploring relationships between face-sheet codes and conceptual codes, quantifying the frequency of code instances, and annotating text" (p. 85).

Next, NVivo 12 (Windows) was used as it offers a wide range of tools to assist with managing data collected from the in-depth interviews. This qualitative data analysis software has the capacity to record, organize, sort, match, and link enriched information (i.e., ideas, patterns of data). For the purposes of this project, NVivo assisted with (a) building a robust body of evidence that strengthens the research presented here, (b) supporting different data formats (i.e., video and audio files, rich text), and (c) interchanging data stored in Microsoft Word, SPSS, Survey Monkey. As Richards (1999) asserted, NVivo is designed to connect different parts of a qualitative project through the integration of documented data, as it can "remove rigid divisions between data and interpretation" (p. 5). Qualitative studies are multidimensional. Therefore, data obtained must be codified, shaped, and modeled to synthesize different ideas or patterns of attributes. Documents maintained in the NVivo database were classified, arranged, and cross-examined. Often, qualitative projects are unstructured at the beginning; the process starts with a "place of curiosity, an awareness of a problem, rather than from a formal hypothesis" (Richards, 1999, p. 23). This can stifle the researcher's motivation to

organize and analyze the unstructured data. However, NVivo's search engine and query functionalities can identify trends in a variety of ways.

In terms of the quantitative piece, the goal was to examine whether (a) physician engagement (communication style, visitation length) correlate with minority parents' adherence to prescribed asthma treatment for their asthmatic childrenm (b) physician cultural sensitivity associated with the parental care behaviors (healthy vs unhealthy) of minority children with asthma, and (c) perceived physician cultural sensitivity associated with the outcomes (incidents of asthma attacks, length of attacks) of minority children with asthma. The other objective was to explore which factors have the greatest influence (i.e., physician communication; the physician-parent-patient relationship; physician engagement; patient-centered, culturally sensitive health care; psychosocial behaviors of the parents). First, all data were entered into Microsoft Excel. For the purposes of this study, all variables were categorical but carried no numerical meaning. However, Chi-Square test of independence was used to test the strength of associations between the independent variables (i.e., barriers or factors relating to parental adherence to asthma treatment for their minority children such as ethnicity, cultural beliefs, socioeconomical status, etc.) and the dependent variables (asthma knowledge relating treatment adherence). To integrate the collection and analysis of both qualitative and quantitative data, I wanted to (a) analyzed the collected data separately, (b) compared, contrasted, and then merged the results, and (c) referred the findings back to the research questions.

Threats to Validity

According to McKenzie, Neiger, and Thackeray (2009), potential threats to external validity may occur through the generalizability of findings, particularly when the study is tailored toward a certain population subset. In terms of this study, the focus is geared toward minority parents' perceptions of physician cultural sensitivity and whether these preexisting beliefs influences parents 'self-efficacy to manage their child's asthma care and treatment. Here, I sought to increase understanding about the role of chronic disease management in the parental care behaviors, including the lived- experiences of minority parents with asthmatic children who reside in Denver, Colorado. In 2017, the Denver Office of Children's Affairs published a report on the growing population composition of minority groups moving into the City and County of Denver. Though Denver is noted the 19th most populated city in the United States (United States Census Bureau, 2016)— the results could be limited, and generalizability may be compromised. However, it is believed that this study involved a representative pool of minority parents living in Denver, Colorado based on the proportional distribution by demographic characteristics (i.e., age, gender, race/ethnicity, education, financial condition, marital status). Using the Parent Demographic and Health Data Questionnaire, data were collected on each of these demographic characteristics to enable comparison of respondents to the population by each characteristic. However, parental perceptions of physician cultural sensitivity, including other cultural, social, and economic factors impacting the study may differ among minority parents living in other regions of the United States. However, the objective of this study was to address gaps in understanding

parental perceptions of physician cultural sensitivity, and if physician interaction, or other health care factors leads to an increase of asthma care regimen adherence across different racial-ethnic minorities.

Credibility and Issues With Trustworthiness

Morse et al. (2002) emphasized that "the lack of responsiveness of the investigator at all stages of the research process is the greatest hidden threat to validity" (p. 18). To meet the criterion of credibility in the research plan, researchers must hold a high level of authenticity and truthfulness. By applying the concepts of validation and reliability, researchers can substantiate their work and incorporate measures that could be repeated by those who obtain complete access to their data (Biddix, 2018; Schmidt & Brown, 2014). However, the generated results must be believable and make sense to the reader (Schmidt & Brown, 2014). To ensure the reliability and validity of data, and to evaluate credibility, Biddix (2018) posited that researchers should implement the standards for developing quality, trustworthiness, and methodological rigor through verification strategies. To ensure the validation of data, Morse et al. (2002) contended that verification strategies allows the researcher to think theoretically, particularly when establishing "methodological coherence, sampling sufficiency, and a dynamic relationship between sampling, data collection and analysis" (p.12). Researchers who triangulate data sources can acquire information through various techniques that aim to "heighten the dependability, and trustworthiness of the data, including their interpretation" (Zohrabi, 2013, p. 254).

In terms of this mixed-methods study, any issue with credibility was addressed using triangulation and peer assessment debriefing. The use of triangulation served to facilitate the validation of data from multiple methods of sources. Here, data triangulation was implemented to (a) analyze the credibility of findings attained through different data collection instruments, (b) reduce the likelihood of systematic bias when using certain data collection methods while validating the generalizability of the study findings, and (c) minimize or control threats that could influence the results (Frankfort-Nachmias & Nachmias, 2008). For the purposes of this study, both in-depth interviews and survey-questionnaire surveys were employed. Conducting in-depth interviews is beneficial exploring participants' perspectives on a particular idea or situation. As Morrow (2005) emphasized, the validity in qualitative research depends on the researcher's ability to ensure credibility, transferability, dependability, and conformability. For accuracy and credibility of the study, all interviews were digitally-recorded and transcribed verbatim. Before data analysis can begin, participants received verbatim transcripts of their interviews to verify the accuracy of our discussion, and to correct any errors. Byrne (2001) suggested using bracketing to identify my personal views, feelings, or any preconceived ideas about the phenomenon under study. Using bracketing enables the researcher to defer any knowledge about the research topic while engaging in deep-reflection (Lemon & Taylor, 1997).

Validity in quantitative research depends on the soundness of the instrument adopted. Another potential concern is sampling validity. Sampling is an essential step in the research process because it will affect the external validity of this study. In this

instance, the concern was whether (a) the study's sample (i.e., the research participants) adequately represents the general population and (b) the applied instrument can measure or answer the research questions. Because of these potential concerns, a prefield test of the questionnaires was conducted ahead of time to refine and time instrument. To evaluate key measurements, pilot testing is beneficial for (a) determining whether each question can generate a wide range of responses and (b) assessing the validity in data collection, repeatability of findings, and replicability of the instrument (Anderson, 2010; Hulley, Cummings, Browner, Grady & Newnan, 2011). Often, the validity of research findings is often substantiated using triangulation contradictory evidence, respondent validation, and constant comparison to study the same phenomenon (Anderson, 2010). In quantitative research, the investigator must use different techniques to help establish findings that are credible, dependable, and possibly transferable to other contexts (Polio & Friedman, 2017). To ensure the proper interpretation of responses and results of this study, my Dissertation Committee served as peer-reviewers. A key component of this study is phenomenology which focuses on the lived experiences of minority parents with asthmatic children living in Denver, Colorado. Therefore, if future studies attempt to reproduce these finding, modifications may be required to reflect certain characteristics of the population being studies.

Ethical Considerations for Conducting Doctoral Research

This mixed-methods study was conducted in accordance with the guidelines established by Institutional Review Board at Walden University. In order to balance the competing goods of individual privacy and public benefit, researchers should (a) adhere

to all ethical standards that underlie the phenomenon being studied, (b) clearly state the purpose of collecting data, (c) maintain strict confidentiality and data security practices while presenting detailed accounts of participants lived-experiences, (d) take additional steps to prevent the misapplication of sensitive data, and (e) obtain a signed letter of consent from those who agree to participate in the research (Kaiser, 2009; Teutsch & Churchill, 2000). Informed consent is one procedure by which human participants are (a) apprised beforehand about the nature of the study (i.e., what to expect), (b) told that their involvement is completely voluntary, and (c) reminded that they can withdraw at any time without penalty (Breckler, Olsen & Wiggins, 2005). Therefore, during participant recruitment and enrollment, the study's objectives were clearly explained, both orally and in writing. Maintaining the confidentiality and anonymity of participants are significant components in ethical research. All collected data were held anonymously, with no personal identifiers that could link any information to the participant. Hence, for the qualitative component of the study, participants were given a fictitious name, as the interview was completely confidential. Furthermore, peer-reviewers were not privy to the participant's real name. For the quantitative component, the confidentiality and anonymity of participants were upheld. Lastly, all research materials were stored in a locked file cabinet located inside my home office for at least 5 years. After the retention of research records has expired, all data including coding logs, were securely destroyed.

Summary

This mixed-methods study was designed to address the gap in knowledge about whether there is a relationship between parental perceptions of physician cultural sensitivity and parents' adherence to prescribed treatment for their asthmatic children. Using the convergent parallel design, data collection was achieved through in-depth, phenomenological interviewing and survey-questionnaires designed to analyze whether physician cultural sensitivity and engagement correlate with minority parents' adherence to prescribed asthma treatment for their asthmatic children living in Denver Colorado. This chapter focused on the methodology of this study, the participant selection, the role of the researcher, including how the data were collected, managed, analyzed, and merged to obtain the results. Additionally, key measures to ensure the validity and trustworthiness of this study were addressed, along with the ethical considerations taken for conducting doctoral research. Chapter 4 explains the analysis and findings from the two aspects of this study.

Chapter 4: Results

Introduction

The purpose of this study was to examine whether there is a relationship between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence among racial, ethnic minorities living in Denver, Colorado. In this chapter, I present the qualitative and quantitative findings of my study. Overall, 108 minority parents fit the inclusion criteria to complete the survey. For the qualitive aspect of this study, five minority parents and one minority grandparent participated in the in-depth interviews. This chapter provides details on (a) the research instruments employed, (b) the recruitment of study participants, (c) the research setting, (d) the data collection process, and (e) the themes generated through data analysis. Responses gathered from the phenomenological interviews and surveys generated the data analyzed for this research project.

Since 1980, significant disparities in asthma outcomes have been documented (Volerman, Chin, & Press, 2017). Although the pervasiveness of asthma has declined since then, children from different racial, ethnic groups continue to endure higher morbidity and mortality rates compared with Caucasian children (Volerman et al., 2017). Therefore, the trends in persistent disparities for pediatric asthma outcomes across multiple minority cultures should never be ignored (Akinbami, Moorman, Simon, & Schoendorf, 2014). Numerous studies have explored asthma-specific influences that contribute to the disparities in family management behaviors, such as medication adherence (Compas et al., 2012; Koinis-Mitchell et al., 2010; McQuaid et al., 2005;

Rand, 2002; Volerman et al., 2017; Wright et al., 2004). However, securing more investment in asthma research is critical, particularly in areas relating to minority cultures, disease management, and other risk factors that contribute to racial and ethnic differences in asthma-related illness and death (Volerman et al., 2017). Therefore, in this study, I sought to elucidate how physician cultural sensitivity, as perceived by minority parents, influences parental care of asthmatic children, including parents' asthma treatment adherence behaviors. Understanding the importance of adhering to asthma treatment by parents is significant to culturally sensitive care and positive health outcomes for minority children with asthma.

The Qualitative Element

For the qualitative element of this study, data were gathered during separate in-depth face-to-face interviews with five minority parents and one guardian grandparent of asthmatic children residing in the City and County Denver from December 2018 to April 2019. Before conducting the phenomenological interviews, a pretest of the materials was used to identify questions that appeared ambiguous or culturally offensive or could be misunderstood by research participants. A preliminary instrument was disseminated online to a panel of five experts with qualified credentials in public health, pediatric nursing, and education (Appendix J). The panel thoroughly reviewed the interview questions and found them appropriate to use. Thus, no revisions to the qualitative survey instrument were made.

As explained in Chapter 3, all potential participants were screened to ensure the best fit for this study's eligibility criteria. Achieving transparency during the collection

and analysis of data allowed for full fidelity, including self-interrogation. Maintaining a faithful and transparent perspective allowed me to substantiate, reassess, and sometimes challenge my presuppositions or interpretations of the data. Therefore, I kept a reflective journal to document ideas, personal biases, and pertinent information about the study and for data transparency. Retaining this level of self-awareness was necessary to mitigate individual biases, particularly when analyzing data that described the participants' experiences related to physician cultural sensitivity. The journal also included weekly comments that captured my journey throughout this study. For example, descriptive footnotes were added to inform my interpretation of emerging themes. Data sources were marked with well-organized comments that outlined a synthesis of key points.

This chapter describes the qualitative and quantitative methods used during the data collection and analyses process. For the qualitative aspect of the study, responses were tabulated using NVivo 12 and common themes were recorded, extracted, and organized in Microsoft Word. In terms of the quantitative aspect, Microsoft Excel was used to conduct a chi-square goodness of fit test of the data. The findings from both study elements were triangulated and merged into themes that referred to the research questions. The following research questions are addressed in this section:

RQ1: Qualitative: How do minority parents of asthmatic children in Denver perceive the cultural sensitivity of their children's physician?

RQ2: Quantitative: Does physician engagement (communication style, visitation length) correlate with minority parents' adherence to prescribed asthma treatment for their asthmatic children?

H_0: Physician engagement and adherence to prescribed asthma treatment are independent.

H_a: Physician engagement and adherence to prescribed asthma treatment are not independent

RQ3: Quantitative: Is physician cultural sensitivity associated with the asthma management beliefs and care behaviors of minority parents caring for their asthmatic children?

H_0: Physician cultural sensitivity and asthma management beliefs are independent.

H_a: Physician cultural sensitivity and asthma management beliefs are not independent.

Study Setting

After receiving final approval from Walden University IRB (IRB# 11-14-18-0188643), I was able to move forward with conducting my research. In early December 2018, I began recruiting in the City and County of Denver. Denver is considered a conurbation region comprised of several large cities, towns, and urban communities (Abbot, 2008; U.S. Census Bureau, 2018). Due to its rapid population growth and physical expansion, Denver has developed into an industrialized megacity. Thus, it was appropriate to recruit from Denver's metropolitan population consisting of six central

counties: Adams, Arapahoe, Broomfield, Denver, Douglas, and Jefferson (U.S. Census Bureau, 2018).

Recruitment

For both components of the study, the snowball technique was used to recruit participants. In terms of the qualitative element, all legal guardians (i.e., parents, grandparents, etc.) who agreed to participate and met the qualification criteria were contacted by phone. During the initial conversation with participants, I answered questions, solidified the time of each interview, and confirmed the preferred location. In addition, the interviewees were reminded that (a) their participation in this study was voluntary, (b) they could withdraw at any time without reprisal, and (c) their decision to stop the interview or to skip questions would not alter the $10 gratuity for participation. In terms of the quantitative element, I initially proposed using convenience sampling. Based on accessibility and proximity to this project, the most convenient individuals were to be recruited in a continuous manner until the proper sample size was attained. However, the snowball technique proved beneficial in recruiting participants. As described in the previous chapters, a recruitment notice for the quantitative element was posted on Facebook and shared four times among this social media community. Additionally, the recruitment notice was e-mailed to several public health professionals who agreed to share the information among their collaborative networks in Denver. Therefore, sampling limitations and constraints on generalizability occurred. Consequently, the study results could not have applied to a general, much broader

population of minority parents with asthmatic children in Denver, Colorado, and across the United States.

Qualitative Data Collection Process

The data collected from the six interviews addressed the one qualitative research question posed in this study. To answer this research question, I posed a series of semistructured, open-ended questions to participants using an interview guide (Appendix G). Interpretative phenomenology was used to explore the lived experiences of participants who shared similar perceptions about physician cultural sensitivity. To determine a baseline of what minority parents of asthmatic children beliefs are regarding the cultural sensitivity of physicians, I asked them what they thought culturally sensitive health care included and if their perceptions affected the child's quality of life (i.e., parental self-efficacy to manage their child's asthma care and treatment plan).

Data Verification

As Birt, Scott, Cavers, Campbell, and Walter (2016) stated, "the trustworthiness of results is the bedrock of high-quality qualitative research" (p. 1802). Therefore, to ensure participant validation, I used two member-checking techniques to limit personal bias. One essential aspect of this technique was using the direct quotes and short phrases of participants to support their lived experiences. The extraction of themes and detailed descriptions provided an opportunity to relate and understand the subjective views of participants. It also gave the parents a sense of character, for example, it showed their strength and hope for their child's wellbeing.

Due to the unique way in which each story was told, I started to create significant links among the participants, their perceptions, life events, the decisions they made, and the actions they took for example (a) their views toward cultural sensitivity among physicians, (b) trying to develop a meaningful relationship with their child's physician; (c) ensuring that their child's daily activities and environments are safe, and (d) improving self-efficacy in the management of their child's asthma. However, before the collected data were analyzed, the participants received a narrative their transcribed interviews and were asked to review their respective document thoroughly for inaccuracies. They were also invited to make corrections for additional clarity, validity, and dependability. After about a week or so, all the participants returned their interview transcripts in person to the researcher. After collecting the transcripts and making the necessary corrections based on written feedback from participants, the interviews were interpreted and integrated into the final descriptions.

Coding Analysis of Qualitative Element

In terms of this dissertation, I used different analytic strategies of content and thematic analysis, including other multiples data sources (i.e., questionnaires; interpretive phenomenological analysis; audio-recordings) to enhance the "comprehensiveness of data and validity of findings" (Bamberger, Rugh & Mabry, 2011, p. 117). As Moule and Goodman (2009) asserted, software for qualitative data analysis provided great flexibility in terms of selecting, copying, cutting, and pasting different entries. This provided a means of organizing, coding, and linking raw data into categorical themes that assisted with interpretation (Moule & Goodman, 2009). As Creswell (2015) posited, coding

allows for the analysis of rich textual data by taking the collected information "apart to see what they yield before putting the data back together in a meaningful way" (p. 156).

For the qualitative aspect of my study, I used NVivo to facilitate the process of data management, coding, and analysis. Utilizing NVivo simplified the way I managed my textual sources, field notes, and audio files. After each interview, I transcribed the audio recording into Microsoft Word. Considerations for editing, formatting, and anonymizing the transcriptions were finalized. Overall, one hour of an audio file took a minimum of four hours to transcribe verbatim. By synthesizing the collected data (i.e., reading the interview transcripts repeatedly), coding became the basis for developing the analysis. Maxwell (2013) denoted that the first step in conducting qualitative analysis is reading and understanding your interview transcripts. Therefore, I read each transcript three times to (a) familiarize myself with the interview content, (b) ascribe phrases or shorter sequence of narrative texts, and (c) identify common themes/subthemes. Throughout the coding process, I was able to simplify data by retaining words and linking them to one another in terms of concepts, themes, ideas, and categories. This approach made it easier to yield comparisons, and to identify patterns that required further scrutiny. Additionally, interviewees were asked to review and see if their transcription was an accurate depiction of what they verbalized during the interview. Utilizing NVivo throughout the coding process allowed for theory-building, collapsing lengthy or complex content, and supporting thematic analysis. As Mackey and Gass (2011) posited, using software for qualitative data analysis carries great flexibility in terms of selecting, copying, cutting, and pasting multiple items at once. Overall, NVivo

provided a means for organizing, coding, and linking raw data into themes that supported the interpretation of data. For example, I retrieved data that related to specific codes, and then systematically arranged the information to demonstrate a correlation between data sets. Some of the codes included ideas, concepts, actions, relationships, and meanings that appeared in the data, such as mistrust, or weak "Parent–Physician" relationships.

Description of Participants

In total, five minority parents and one minority, guardian grandparent agreed to participate in the phenomenological part of this study. To protect the confidentially of interviewees, I assign a pseudonym to each parent, grandparent, and child (if mentioned). All the participants lived in the metro area of Denver, which is comprised of 78 neighborhoods. The first parent self-identified as mixed with both Native American and African American heritage, married, with one asthmatic (boy) child, aged 14. The second parent self-identified as a Black and Hispanic or Afro-Hispanic woman who is married with four children ages 16, 11, 9, and 5. Her youngest daughter, age 5—was diagnosed with asthma. The third parent self-identified as an Asian Pacific (American) divorcee, with two children, one boy and one girl. His daughter, age 12 was diagnosed with asthma. The fourth parent self-identified as Black from Lagos Africa, married, with one asthmatic (boy) child, aged 15. The fifth parent self-identified as both Native American and Caucasian, single with one asthmatic (girl) child aged 6. The only guardian grandparent of this phenomenology study, self-identified as a Black/Filipino woman, married, with one asthmatic (boy) grandchild, aged 11. Table 1highlights the cultural

background of six respondents who agreed to participate in the qualitative component of this study.

Table 1

Racial Ethnic Background of Study Participants

Study participant	Relationship to child	Current age of asthmatic child	Gender of asthmatic child	Cultural background of participants (self-identified)	Cultural background of physician(s) *identified by participant*
Eva	Mother	14	Male	Native American and African American	*Caucasian*
Tanya	Mother	5	Female	Afro-Hispanic	Caucasian
David	Father	12	Female	Asian-Pacific Islander	Asian-Pacific Islander
Jeramiah	Father	15	Male	Black	Caucasian
Rose	Mother	6	Female	Native American and Caucasian	Asian, Hispanic, and Caucasian
Cynthia	Grandmother	11	Male	Black-Filipino	Hispanic

*Anonymous pseudonyms were used for participants to maintain their confidentiality

The following paragraphs includes direct quotes and phrases from the participants:

Eva is 41-year-old woman who has both Native American and African American ancestry. She lives in Denver (the Lincoln Park area) with her Cuban husband and one son (14 years old), who currently suffers from asthma and seasonal allergies. She first received her son's diagnosis during a family trip to see her parents in Texas; he was 3 ½ at the time. Eva stated that after two days of constant coughing and excessive wheezing, "we had to take him to urgent care." On the drive to the medical office, Eva noticed that her son was having "difficulty breathing, and his chest seemed very tight." Although Eva was filled with anxiety that day, she felt "somewhat relieved" once the physician "put him on the nebulizer." After the nurse administered three albuterol treatments to her son, "he seemed so much better, and even asked for a lollipop." Eva stated that the physician

was a young African American woman with a warm personality. Once the family returned home from their vacation, her son's diagnoses was confirmed by his pediatrician from birth, another African American woman who provided, "great advice" and seemed to "genuinely care" about the family's well-being. Eva indicated that she lived in Birmingham, Alabama at that time. Now her son's new physician is a "40-something year old white man" who tends to ask an abundance of concerning questions every time they are seen. As her son gets older and can better articulate how asthma affect his daily activities, Eva wants a more, culturally responsive physician with "culturally sensitive lenses." She prefers a respected and trustworthy physician who "doesn't seem rushed" during their time together. Because her son plays both basketball and football at their local rec center, Eva wants to ensure that his asthma is properly managed and under control. Therefore, she is not afraid to ask questions. However, she is concerned that the physician focuses entirely on son's condition, and less time trying to understand the uniqueness of their cultural background.

Tanya is 37-year-old woman who describes her heritage as Afro-Hispanic or Black and Hispanic. She currently resides in Denver (Five Points) with her Hispanic husband and four children. Her youngest one daughter (age 5) currently suffers from asthma. She describes where her family lives as being "demographically homogenous" and lacks cultural diversity. Her daughter's physician is not of the same race; the pediatrician is a Caucasian female. At each medical visit, Tanya feels that the physician tries to relate to her family through religion only, but lacks the sensitivity required to recognize the cultural or racial differences between them. "It would be nice if our race

was recognized more," she stated. Tanya spoke candidly about the physician's attentiveness when she or her husband have questions relating to their daughter's asthma and getting vaccinated. She stated that her child's physician has a friendly demeanor, and usually attends to the family's concerns with patience, compassion, and professionalism.

David is a 50-year-old, divorcee who describes his ethnicity as Asian- Pacific Islander. He is recently divorced, with two children (one boy and one girl). His daughter, age 12 has been diagnosed with asthma. He noted that soon after his baby arrived home from the hospital, she "had difficulty breathing." David's daughter was diagnosed with a respiratory viral infection by her pediatrician. He and his wife were given strict instructions to buy saline nasal drops and a cool mist humidifier. At age 6, his daughter was diagnosed with asthma. During a routine doctor's visit, his wife mentioned the child's excessive coughs at night, the loud wheezing sound in her chest, and her disinterest to play with other children at the playground or during time at school. Currently, David shares custody of both children with his ex-wife. After his divorce was finalized, he decided to stay close the family and remained in Denver.

Jeramiah considers himself Black. Born in the Nigerian state of Lagos, he journeyed to the United States with his mother at 8 years old to join his father in New York City. He is 46 now, married to an African American woman, and has one son (age 15) who has asthma. Jeramiah currently lives in Denver and stated that he has a great relationship with his son's pediatrician. Although the physician is Caucasian, he speaks to his son in a way that's "relatable, open, and friendly." Jeramiah noted that this physician is "a bit

younger" than the previous two health practitioners that they had, and that his son really enjoys their patient-physician interaction.

Rose is a 45-year-old woman who describes herself as Native American and Caucasian. She currently resides in Denver with her 6- year old daughter who currently suffers from allergen-induced asthma. Rose also suffers from this condition, so when her daughter was "diagnosed at 4-years old", she knew exactly what to do, and what questions to ask. However, Rose noted that her daughter's condition has gotten worse. She stated that "living in Colorado is really different than living in upstate New York or California." Transitioning to Denver's high-altitude environment has been a huge adjustment for them. Although the humidity in Colorado is "non-existent," Rose stated that in her opinion Denver's high elevation has triggered her daughter's asthma symptoms and weakened her lungs. Because the air is thinner in Denver, Rose conveyed that lower air pressure at a higher altitude "makes it hard to breathe in oxygen." She stated that her daughter's pediatricians have made a real effort to understand her "racial makeup," perspectives, and lived experiences in different states. Rose mentioned that her daughter's physicians are all women who belong to the same medical group; "she has an Asian, Hispanic, and Caucasian doctor." Rose does not prefer one physician over the other. However, her daughter is especially fond of the Asian physician, the youngest female of the medical group. Rose noted how well the physicians collaborate with her to ensure that her daughter's treatment plan is working. However, Rose mentioned that her daughter still suffers from altitude sickness from time to time (i.e., bouts of dizziness,

light headaches). However, for the first time since relocating to Denver, Rose feels optimistic about her daughter's health and asthma care plan.

Cynthia is a 59-year-old grandmother woman who describes herself as Black and Filipino; her mother was of Filipino descent and her father was Black. Currently, she lives in Denver with her African American husband of 34 years and 11-year-old asthmatic grandson. She identifies her grandson as Black, Hispanic, and Filipino. After gaining temporary custody of her grandchild, Cynthia realized how severe his asthma had become. She spoke candidly about her desire to learn more about his condition. In addition to researching the illness of her own, she made a wellness visit with her grandson's physician. During the visit, Cynthia said she felt overwhelmed, frustrated, and displeased by the physician's professional demeanor. She and her husband had several questions relating to their grandson's current medications, his desire to run track with friends, and updating the school's asthma care plan. Cynthia noted how impatient the physician appeared when her husband asked, "if asthma was genetic?" She noted how "in a hurry" the physician was during their bi-monthly appointments.

Identifiable Themes

Thematic coding was utilized to highlight how minority parents of asthmatic children in Denver perceive the cultural sensitivity of their children's physician. The concepts of physician cultural sensitivity, parent-physician-patient engagement and treatment adherence were analyzed through qualitative interviewing. The study participants spoke candidly about (a) having a clear understanding about pediatric asthma

(b) forming a genuine relationship with the child's physician, and (c) the challenges they face when seeking medical guidance on asthma management.

RQ1 addresses how minority parents of asthmatic children in Denver perceive the cultural sensitivity of their children's physician. Three key themes that emerged through data analyses included (1) Cultural Respect in Patient Engagement; (2) Upholding an Attitude of Helpfulness toward the Patient, and (3) Maintaining an Active Physician-Parent-Patient Relationship. Table 2 summarizes a list of themes that assessed the relevance of physician cultural sensitivity in asthma adherence management.

Table 2

Emerging Themes

Themes	Participants
Cultural respect in patient engagement	Eva, Tanya, Jeramiah, David, Cynthia, Rose
Upholding an attitude of helpfulness toward the patient	Cynthia, Rose, Tanya, David, Jeremiah, Eva
Maintaining an active physician-parent-patient relationship	David, Eva, Cynthia, Rose, Jeramiah, Tanya

Theme 1: Cultural respect in patient engagement

During the interviews, the participants spoke about the "respect of culture" when the physician speaks with them or to the children. For most of the interviewees, it was important that the physician understood or made meaningful efforts to understand their cultural backgrounds. However, they wanted the conversation between them to be genuine, unpretentious, and ongoing. This level of positive physician engagement gave some parents (or grandparent) the confidence to ask additional questions about their

child's (or grandchild's) current medication, action plans for home and school, including the child's desire to play sports.

Eva spoke candidly about culturally responsive physicians who practice medicine with genuine care and concern. She stated, "I would think that a doctor wants to know…who we are, and where we come from." Eva went on to say, "I can tell if a nurse or doctor is rushing me, and just wants to get on with the visit." As her son gets older, she wants him to become "more vocal about what works and what doesn't." Eva stated that her son's physician has an inquisitive attitude about "how he feels, and if he's taking the medicine correctly." However, she noted that the physician spends less, and less time is spent trying to understand their family. She stated, "See, I know who I am…but do you? I mean, Aaron's doctor is nice and all, but he's never really asked about our family's history." She stated that pediatricians should encourage parents to describe the family's culture, particularly if the family has recently relocated from another state or country.

When referencing the cultural sensitivity of her daughter's physician, Tanya said, "Umm, it's really hard to say… if she understands our race." Tanya mentioned that the physician tries to connect with the family through religion. Tanya said,

> Although I can appreciate that, she doesn't take into account our cultural differences. She tries to pretend like it's not a factor, as if we're all the same… (umm, which I can appreciate), but there are cultural differences that we should talk about. Now, from my past experiences, it felt like my daughter's physicians would avoid the topic, like it wasn't even an issue.

Jeramiah noted that his son's physician is "easy-going" and treats him and his son with respect. Through "fists-pumps" and light-hearted conversations about school, friends or sports—this physician can typically "switch gears" with ease to talk about his son's "asthma, his recent weight-gain, drugs—even sex." Jeramiah expressed how much he appreciates this level of candor and kindness. However, his son "doesn't always follow the plan." Often, his son is "absent-minded when it comes to taking his meds in the morning." To treat the teen's asthma, the physician has prescribed: (a) ProAir RespiClick®, the albuterol sulfate rescue inhaler; (b) Singulair®, a daily medication that treats asthma and provides relief to allergic rhinitis symptoms, and (c) Fluticasone ®, a steroid aerosol inhaler that reduces inflammation of the airways. Although the physician possesses good bedside manners, Jeramiah questions if the physician and his staff truly understand his family's life experiences. The physician rarely enquires about the family's cultural background. From his past experiences, Jeramiah explained that most of the physicians he's encountered "assume that all black people are the same." For example, Jeramiah believes in preserving his mother's health practices, which include the use of "traditional African medicines and healing." However, these cultural differences have become a sore topic of conversation between the maternal and parental grandparents. Jeramiah shared,

> We're always talking about Benji's asthma in our house. Our parents have their own views about this doctor, and how he's in it for the money. But, he's good, and I like how Benji connects with him…and vice-versa. But, umm, he should

understand the cultural differences among black folks, and anyone else who comes in there.

With roots from both Japan and Cooks-Island, it was important that David found a family physician who shared the same cultural background and understood the "real health issues" facing his family and ethnic group (i.e., asthma, diabetes, cancer, psychological distress). "We share the same background and beliefs—so he understands us," David stated about his daughter's physician. He also conveyed how responsible his daughter is with adhering to her new treatment plan. He attributes part of her success to how well the physician communicates with his family and listens to his daughter concerns. From his perspective, David views the physician as "a warm and caring guy." However, his daughter has requested a woman physician, and "doesn't seem to care what race she is." Although David respects his daughter's decision, he fears that a cultural gap could "get in the way of her care." David noted that: "Doctors should understand the different backgrounds of their patients…because when they do, the person (from my experience) seems to listen and take their advice." Cynthia describes her grandson's physician as contemptuous. She stated, "In my opinion, Dr. Allen, is not culturally aware of anything. "It just felt…felt like he was trying to get-on to the person, that's all." Although the physician inquired about their cultural backgrounds, Cynthia felt that his questions were insincere and "just another medical formality." She noted his unfriendliness and dismissive nature. Cynthia said, "One day, he had the nerve to tell us…he had a full office and had to get-on to the next patient." Upset about how the appointment went, her husband "had just (had) enough" and selected another physician to

care for his grandson's health. A member of Cynthia's church recommended his children's pediatrician, a middle-aged Hispanic physician. She feels confident about this new relationship—as this physician is specialized in treating allergic diseases, including pediatric asthma.

Rose mentioned how courteous each of the physicians are. She stated that "The doctors always show respect, and, umm really try to understand my background." Rose described the bond that one physician has formed with her daughter. She said, "Dr. Britton really tries to make that personal connection with Alayah. I guess that's why she's likes her so much." Rose stated,

> The first time I took Alayah to see the doctor, she was so scared; she was actually squeezing my hand. But, the nurse and Dr. Britton were really sweet, and started asking her a bunch of questions about life… like what she liked, her grandparents, her favorite books to read, her favorite shows. They even asked about the turquoise bracelet my dad gave her last year.

Theme 2: Upholding an attitude of helpfulness toward the patient.

During the interviews, most participants talked about their need to feel continuously supported by physicians who can provide culturally appropriate care to their children. All Cynthia spoke about having empathic "doctors who are helpful" when questions arise about how to alleviate the severity of the child's symptoms, including the amount of medicine the child should take. The participants shared their thoughts on

having responsive, reliable, and empathetic physicians to treat their child's or grandchild's condition with care. Cynthia stated,

> I mean, it's hard when you have a lot of questions and can't find the right answers online, then you call or make an appointment, and everybody in the office has an attitude. One time, we went to see the doctor because Allen couldn't breathe and was coughing all night long. I put him the nebulizer a few times, and nothing worked. My son, Daniel, was there to help me because my husband worked nights at the time. I was panicking because it took so long to settle him down. When we got to the doctor's office in the morning, the nurse was nice, but the doctor couldn't care less. Even though he asked us a lot of questions, he was just plain rude. It had to be at least 30 minutes before they got Allen's breathing under control, but that doctor, had "no care in the world".

Rose shared her appreciation for the physicians' helpful and respectful attitude. "All of them are really nice and are willing to answer any question I have." Rose noted how overly concern she's become since relocating to Denver. Rose said,

> When Alayah was little-little, her doctor knew what to do. She prescribed the albuterol, and Alayah responded well to it. She gave her some allergy medicine too. See, our asthma is allergy induced, so our bodies respond differently to the medication.

Rose stated that having "doctors from different cultures is great" because they always seem opened to receiving her concerning questions, opinions, and beliefs about how Denver's climate has impacted her family's health. Because of their willingness to make

meaningful connections with her family, Rose stated that she's more opened to listening and "taking Dr. Britton's and Dr. Culliver's advice." Tanya shared,

> Yeah, here in Colorado… I feel like this new doctor that I'm taking Janelle to—that she listens to my concerns and is really friendly, yet professional. Now, in the past, the experience that I had with her other pediatrician…while she was professional, I felt like she had no personality. She dismissed a lot of my concerns. It was almost like it made her nervous to talk about different things, like how the flu shot could affect my daughter's asthma, or the benefits of getting vaccinated. So, I did my own research to get the answers I needed. But now, my experience with this new doctor has been very positive.

David mentioned how helpful his daughter's current physician is:

> It's hard to find a good doctor nowadays. Everyone is in a rush you know. But, I like my kids' doctor. He makes them laugh with his jokes. I appreciate that he's willing to answer my questions and will follow up with my ex or me. My daughter's asthma, especially when it gets cold—is hard to control. The dry air in Denver is horrible. Yeah, it's definitely a trigger for Ally's bad flare-ups. One time, Dr. Park was busy. But he still took the time to make Ally feel important…like she was the only patient there.

Jerimiah mentioned the value in having an "approachable doctor" that cares. He shared how his son's physician "goes above and beyond":

> I like that we he's an approachable doctor. He's big on walking us through Benji's asthma plan. He's doesn't sugar coat anything and tells him the truth

> about why taking his meds every day is important. Sometimes our insurance will change the meds he's been on for the generic kind. So, as a parent you have questions about that. Like, does it have the same strength? (or) Can he take it like the other one? Yeah, he doesn't mind answering my questions.

Eva said,

> Oh definitely! I think his doctor listens when I have questions. Dr. Bailey isn't scared to ask Aaron or me any questions too. Aaron is all into playing football and basketball, so, I definitely want to make sure that his asthma is under control. So, yeah—his doctor and I work together on that aspect and we make decisions about his treatment together. You know, that's important to me! But, I need Aaron to take his asthma more seriously because he's getting older. I told Dr. Bailey…you know this child will wait until his inhaler gets down to one puff, then he shakes the residue and tells me…I still got a little left Ma, don't worry. I thought I was tough on Aaron, but, Dr. Bailey got on him hard that day.

Theme 3: Maintaining an active physician-parent-patient relationship.

The study participants all stated in some fashion, that maintaining the physician-parent-patient relationship is imperative—even when a consensus about what is best for the child cannot be made. David talked in detailed about the value of communication, particularly when disagreements emerge over the different options for asthma treatment. David explained,

> Sometimes, you have to agree to disagree about what's best, and leave it at that. It's really about listening to what's being said. Dr. Park is good about explaining

> things and showing us the facts. But, yeah—there's times when I just don't agree with something—like changing Ally's medications. But, I trust him, and we talk things though. Usually, he goes over the pros and the cons. He's really good at asking my opinion on the issue. Sometimes, he'll mention other options, like sending Ally to an allergist or buying her one of those humidifiers. He's been practicing for years, so I know he's knows a lot.

Eva described the family's relationship with her son's physician as "great, for the most part." Building trust with her son's new physician was difficult at first, particularly because she relocated from Alabama to Colorado. Eva shared,

> I knew Aaron's old pediatrician. We had built this connection. She was smart, nice, and gave us good advice on how to get his asthma under control. So, I trusted her. Then, we moved here (Eva is referring to Colorado), and I thought it was going to be hard to find what Aaron had in Birmingham. At first, I felt like he was rushing us out of the appointments. I don't think he even asked about where we lived before. But, over time—I started asking my questions because I notice a big difference in Colorado's altitude and Aaron started getting a lot of nosebleeds too. Now, we were dealing with his asthma, his weight, and a bloody nose every day. Aaron's doctor is really good about giving us information and advice. Now, that doesn't mean, we agree all the time, but we try to find some common ground. He'll say, we're partners in this Aaron, so do your part man.

For Cynthia, she remained unconvinced that her family could maintain a successful physician-grandparent-patient relationship. Cynthia said,

> Some doctors that don't look like you, don't care if you live or die. That doctor wasn't someone I could trust with my grandson. He was just unprofessional. Oh, he wasn't going to get my business anymore, and the women at the front desk were rude too…please….

Rose talked about the level of engagement her family and the three physicians. Rose emphasized how encouraging they were. She said, "all of them make sure that I feel supported, and that we're in this together." She noted the physicians' effort to maintain an honest connection by taking "time to understand Alayah's asthma and how I'm handling it too." When referencing the physicians, Rose stated, "They never interrupt me, so I appreciate the way they communicate."

Jerimiah spoke candidly about maintaining a constructive physician parent-patient relationship that is mutually respectful. He said, "it's good when everybody in the room can recognize the value in each other." For him, the communication between the physician, parent, and child must be ongoing and remain positive, "because having asthma is serious business." Jerimiah went on to say,

> Yeah, of course, communication is important. But, that comes with trust first. I think we have a good relationship with Benji's doctor and he puts the effort in. I just want Benji to take his asthma more seriously, so he needs to put some effort in too. Sometimes, I think the doctor gives us too much information. You can just see it all over Benji's face…like come on man, I know this already or we've been through this before. Umm, but, I do appreciate how the doctor cares about his patients.

Tanya said,

> Oh, I think we're forming a good relationship, and yeah, that's really important to me as a mom. But, umm, she's great about asking questions and listening to my concerns. Then, she double checks everything we covered, and the last doctor never did that. I just started taking her there, so we'll see. As a mom, I'm always concerned about how to manage Olivia's asthma correctly or if I'm just giving her too many meds. But, knowing that I can call her doctor, or the nurse makes me feel good.

During the interviews, the participants talked about the importance of helping their children lead a normal and active life. However, all of them expressed the significance of having trustworthy physicians who are culturally sensitive to their family's structure, values, and lifestyles. For Jerimiah, it's important that parents share in making decisions with physicians to create a "solid plan that actually works." However, the parents and grandparent spoke about guiding their child/grandchild toward self-managing responsibilities.

Summary of Qualitative Findings for RQ1

RQ1 sought to address how minority parents of asthmatic children in Denver perceive the cultural sensitivity of their children's physician. For the qualitative component of this study, the snowball technique was used to recruit participants which included five parents and one guardian grandparent. Before starting the interviewing process, I advised each participant of his or her rights and answered several questions for

clarity (i.e., length of interview time; the availability of transcripts to review). Additionally, all participants were asked to sign the informed consent.

Qualitative findings relative to RQ1 revealed that parents truly value the relationship formed between their child's physician, the child, and immediate family members. However, from the participant's perspective—this relationship required a sense of trust between all parties, including the physician's willingness to gain a deeper understanding about the family's structure, including the family's ethnic background and cultural characteristics. During the interviews, all participants discussed the importance of having a physician who took pride in being helpful and responsive in addressing the family's questions or concerns.

The participants felt that maintaining a collaborative physician-parent-patient relationship is essential, particularly when designing a customized, effective asthma treatment plan to fit the child's lifestyle and daily schedule. It is important to note that almost all participants self-identified themselves as multiracial and/or married to someone of another ethnic group. Therefore, for the participants, it was important that the child's physician spend time during each medical encounter (a) gathering information from the patient, including their immediate family, (b) developing a meaningful relationship with the family, (c) being responsive to the family's diverse cultural health beliefs, (d) listening to the families lived experiences to help tailor an effective treatment plan for the child, and (e) considering the barriers that may affect asthma care.

The Quality of Credible Evidence

To ensure the quality of credible evidence for this study, and to make a solid contribution the existing body of knowledge around cultural sensitivity in pediatric asthma care, this part of the research relied on enhancing the quality of collecting and analyzing the data. To enhance the quality of data collection during the analysis process—a high level of authenticity, truthfulness and completeness was upheld through proper preparation and validation. The first phase included collecting and converting raw data into meaningful context. Secondly, specific standards were set without bias and included the following (a) the prescreening of potential subjects to ensure they met the inclusion criteria, (b) checking whether procedures established to collect data were actually followed (i.e., obtain a signed letter of consent by participants; assigning pseudonyms to protect the confidentially of each interviewee), and (c) completing the interviewing process by being cognizant of how data was solicited (i.e., framing questions appropriately without conveying any positive or negative expectations).

In addition, I used several verification strategies to establish the reliability and validity of the study's findings. One key component of the qualitative interviews was developing rich descriptions of the parent's lived experiences. The objective of phenomenological research is to capture the underlying meaning of a person's life experiences which should include their subjective and intersubjective opinions (Sutton & Austin, 2015). Thus, to ensure that the qualitative part of the study was trustworthy and verifiable, I implemented certain processes to collect and analyze my data. Before scheduling interviews with study participants, an initial telephone call was made to (a) discuss the purpose of this research,

(b) answer any questions they had, (c) collect their demographic history, (d) find the most convenient time to conduct the interview sessions, and (e) thank them for their willingness to participate.

Upholding the confidentiality of the participants was a major component of this study. Therefore, after the selection process was finalized, all interviews were scheduled accordingly, and participants were given details about the interviewing process. This included how data will be collected and stored. Also, I explained my reasoning for using a semi-structured interview approach that includes a topic-guide of questions to keep our discussion fluid and free flowing, and on task. However, the participants had the freedom to share their views, and on their own terms. A toll-free, crisis service helpline was given to all participants to offer support by confidential counselors if they experienced psychological distress due to this research. Also, participants were told about my sworn duty to report a suspected case of child neglect or abuse to the Denver's Human Service, Colorado Child Abuse and Neglect Hotline.

Again, and before conducting the interviews, the participants were given the chance to ask questions, sign their consent forms, informed about how their information would be used, how data would be gathered and stored. As a gesture of appreciation, the participants also received a $10 gift card. To protect the privacy of the participants, they were all given a fictitious name. Lastly, all research materials were stored in a locked file cabinet located for at least five years. After the retention of research records has expired, all data including coding logs, will be destroyed.

Testing the Credibility of Research Results

To test the credibility of findings, data triangulation was implemented through different data collection instruments to help reduce the probability of systematic bias when validating the generalizability of the findings, and when controlling or minimalizing threats that could influence the results (Frankfort-Nachmias & Nachmias, 2008). Patton (2002) denoted that data triangulation in qualitative research includes the use of different sources to (a) develop a thorough understanding of the phenomena and (b) increase the credibility of the study. However, researchers must be meticulous when reviewing the collected data to attain a sound assessment of their qualitative results (Patton, 2002). Therefore, the process I implemented involved recruiting different participants from different neighborhoods throughout metro Denver and using direct quotes from these participants as evidence to support my findings.

Strategies to Ensure Confirmability

To achieve confirmability in this study, several strategies were used. For example, I used an audio device to collect the rich descriptions of participants, and then, composed verbatim transcriptions to capture specific words, sounds, and expressions used during the interview. In addition, I jotted down little analytical notes on the interview guide during the data collection and analysis process. Implementing this method, allowed me to highlight emerging themes and subthemes. Direct quotes were incorporated to provide the reader with rich descriptions from the participant's perspective. After conducting the second interview, I became conscious about my own preconceptions, values, and cultural sensitivities as an African American mother of two children. Thus, I started a reflexive

diary and made regular entries during the research process. In the journal, I documented my personal reflections, including why certain logistical decisions were made, and the reasoning behind them. Keeping a diary became an intense, but cathartic part of the research process.

The Quantitative Element

For the quantitative element of this study, a survey-questionnaire was developed to assess the correlation between variables: physician engagement; adherence to child's prescribed asthma treatment; physician cultural sensitivity; asthma management beliefs and care behaviors of minority parents. SurveyMonkey was employed to administer the questionnaire online from December 2018 to April 2019. This component of the study included three validated survey instruments that measured parents' perception of physician cultural sensitivity (a) an adapted version of The Tucker-Culturally Sensitive Health Care Provider Inventory, Patient Form, (b) MOS Measures of Patient Adherence Survey Instrument, and (c) a Demographic Data Questionnaire that includes questions from the United States Census Bureau and Behavioral Risk Factor Surveillance System. These quantitative measures were relevant in assessing parents' adherence or nonadherence to asthma medication treatment for the child, and the level of patient-satisfaction in the child's medical care.

As delineated in Chapter 3, developing a survey that incorporated three validated instruments posed a few issues at first, because as a modified questionnaire—the instrument lacked validity and respondent comprehensibility. Before posting the actual survey online, a preliminary test was conducted to establish the questionnaire's

functionality, construct, and content validity. To ensure questionnaire salience among the target population, a panel of five experts from different disciplines were assembled to (a) evaluate the face validity of the questionnaire and (b) help ensure that all questions were culturally sensitive to racial-ethnic parents (see Appendix J for list of the panel members by discipline). During the pilot testing process, reviewers offered insight into the survey's strengths and weaknesses (i.e., design and usability). For example, the panel approved the same questions, but suggested making the survey shorter (Appendix I).

To eliminate respondent confusion, the questionnaire was kept straightforward and free from medical jargon. The quantitative survey was administered using SurveyMonkey. Using this online method facilitated how the questions were asked, retrieved, stored, coded, and exported into Microsoft Excel for data analysis. SurveyMonkey provided several basic bar graphs and tables that tabulated the data for free through Excel which was exported. However, the response rate was extremely low (i.e. only 7 people responded after a month). Thus, I solicited feedback from the panel again.

Overall, four members conveyed that the combination of the adapted T-CSHCPI-PF (Appendix G) and the Parent Demographic/Health Data Questionnaire (Appendix B) was too time consuming for participants to complete. Some members of the panel conveyed that respondents may become overwhelmed with answering 62 questions. Consequently, I reduced the questions down to 27 questions (Appendix I). After revising the survey, the document was sent back to the panel for feedback for a second review.

Once the panel review was completed, another survey-questionnaire was launched in February via the SurveyMonkey.

After a thorough review of the survey results, twenty-six participants were disqualified based on specific criteria (i.e., individuals did not agree to consent). SurveyMonkey provided several basic bar graphs and tables that tabulated the data for free through Microsoft Excel. I selected a variable view, spreadsheet style that defined each question and answer choices. The questions were labeled as Q1, Q2, Q3, Q4, and so forth. The answer choices were assigned a numeric value and variable label to help analyze the survey results. Numerical values were assigned to categories for analysis. Once I entered the coded data into Excel, I checked for errors and ran frequencies on the assigned variables that were present within the data set.

Demographics of the Quantitative Element

Table 3 describes the background characteristics of survey respondents. This table presents the percent distribution of men and women by ethnicity, current marital status, residence, highest educational level, and income. After viewing the survey, more females (71.30%) participated in this survey than males (28.70%). The latter observation resembles the results analyzed from the qualitative study of which four women and two men participated in the interviews. Overall, I proposed to recruit 168 participants, over the age of 18, living in the City and County of Denver. However, a total of 134 participants signed on to complete the survey, but only 108 people consented. By ethnicity, 69.44% of the participants identified themselves as Non-Hispanic. While 41.67% participants received a bachelor's degree, 24.07% held a master's degree in a

professional field. In terms of annual household income, 20.37% of participants made more than $100,000, which may have socioeconomic implications for their family (See Table 3).

Table 3
Survey Statistics Parent Demographic (n = 108)

Variables	*f*	%
Q2. Gender		
Male	37	34.26%
Female	71	65.74%
Q4. Ethnicity		
Non-Hispanic, Latino, or Spanish origin Mexican, Mexican	75	69.44%
American, Chicano	16	14.81%
Puerto Rican	10	9.26%
Cuban	4	3.70%
Other Hispanic, Latino, or Spanish origin (e.g., Argentinian, Columbian, Salvadoran, Dominican)	3	2.78%
Q5. Race		
African American	9	12%
American Indian or Alaska Native	10	13.33%
Asian Indian	7	9.33%
Chinese	7	9.33%
Filipino	6	8.00%
Other Asian (e.g., Hmong, Laotian)	7	9.33%
Japanese	5	6.67%
Korean	6	8.00%
Vietnamese	3	4.00%
Native Hawaiian	8	10.67%
Guamanian or Chamorro	2	2.67%
Samoan	3	4.00%
Other Pacific Islander (e.g., Fijian)	2	2.67%
Q6. Relation to asthmatic child		
Parent (e.g., biologic, step, adoptive)	73	67.59%
Grandparent	13	12.04%
Foster parent or guardian	14	12.96%
Sibling (e.g., biologic, step, adoptive)	5	4.63%
Other relative	2	1.85%
Not related in any way	1	0.93%
Q7. Marital status		
Never married	30	27.78%
Married	38	35.19%
Widowed	4	3.70%
Divorced	28	25.93%
Separated	8	7.41%
Q. 8 Annual household income		
Less than $20,000	2	1.85%
$20,000 to $34,999	3	2.78%
$35,000 to $49,999	14	12.96%
$50,000 to $74,999	28	25.93%
$75,000 to $100,000	39	36.11%
Over $1000,000	22	20.37%
Q9. Education level		
High school or less	8	7.41%
Some college	14	12.96%
Associate degree	5	4.63%
Bachelor's degree	45	41.67%
Master's degree	26	24.07%
Professional degree beyond bachelor's degree	6	5.56%
Doctoral degree	4	3.70%
Q10. Gender of asthmatic child		
Boy	46	42.59%
Girl	62	57.41%

Quantitative Element for RQ2

In terms of RQ2, the inquiry examines if perceived physician engagement (communication style, visitation length) correlates with minority parents' adherence to prescribed asthma treatment for their asthmatic children. Parents or legal guardians of asthmatic children who reside in Denver were invited to participate in this survey. Using the Chi-square test of independence, I tested the strength of two categorical variables (i.e., Physician Engagement and Adherence to Treatment) to determine whether the two variables were independent of one another within my study population. In reviewing RQ2, I conducted a hypothesis test for the Chi-Square test of independence:

RQ2: Does physician engagement correlate with minority parents' adherence to prescribed asthma treatment for their asthmatic children?

H_0: Physician engagement and adherence to prescribed asthma treatment are independent.

H_a: Physician engagement and adherence to prescribed asthma treatment are not independent

To examine if there is a significant relationship between these two categorical variables, all survey responses were tabulated, particularly questions that were specific to the variables that could answer RQ2. Table 4 outlines the individual responses relating to physician engagement and adherence to asthma treatment. Raw data of individual responses from Q16 and Q21 were first extracted from SurveyMonkey, and then exported into Microsoft Excel. Table 4 provides the following information: the observed cell totals, and the Chi-square statistic for each cell. After extracting the responses from

Microsoft Excel, the Chi-square Calculator (https://www.mathsisfun.com/data/chi-square-calculator.html) was utilized to compute the Chi-square, degrees of freedom and p-value.

To determine whether there is a significant relationship between physician engagement and adherence to treatment, the Chi-square test of independence was calculated with a Chi-square statistic of 0.4077. In addition, the p-value of .523457 was then generated to determine whether the probability of study results was caused by chance alone or by the variables under study. This was calculated using the Chi-square score of 0.4077; the degrees of freedom: df = (2-1) * (2-1) =1 and by setting the significance threshold, an alpha of 0.05. For the purposes of this study, the p-value of 0.05 was then applied to evaluate the null hypothesis.

Table 3

Results of Chi-Square Test of Independence and Descriptive Statistics for Physician Engagement and Treatment Adherence

Treatment adherence	Physician engagement	
	Agree	Disagree
Agree	73 (72.22%)	5 (5.78%)
Disagree	27 (27.78%)	3 (2.2%)

Note. χ^2 = 0.008376068, df = 1. Numbers in parentheses indicate column percentages.

Using Chi-square, the test of independence indicates that physician engagement with minority parents of asthmatic children does not appear to be statistically associated with parent's adherence to their child's treatment; the results showed no difference between the effect of these two variables. These results suggest that physician engagement and adherence to treatment are independent of one another and are not

linked. Consequently, for RQ2, there was a failure to reject the null hypothesis, and a lack of sufficient evidence to suggest the null was false at the 95% confidence level.

Summary of RQ2 Results

RQ2 is inferential and examines if perceived physician engagement correlates with minority parents' adherence to prescribed asthma treatment for their asthmatic children. The quantitative element of this study involved surveying 108 parents or legal guardians of asthmatic children who living in Denver, Colorado. With respect to the measured variables, the data revealed no statistically significant difference between them. To determine if a significant relationship between these two categorical variables exists, the Chi-square test of independence was conducted. The results indicated that the null hypotheses could not be rejected; supporting the notion that there is not relationship between treatment adherence and perceptions of physician engagement.

Quantitative Element for RQ3

In terms of RQ3, the inquiry investigates whether physician cultural sensitivity is associated with the asthma management beliefs and care behaviors of minority parents caring for their asthmatic children. To answer RQ3, I analyzed the data collected from survey questions relating to physician cultural sensitivity. However, there were limitations to this answering this RQ3. The care behaviors of minority parents could not be determined because the survey question that correlated with this variable included length of time (see Table 5). Although Q27 may be beneficial in determining whether the child has taken her or his asthma treatment regularly from time of medical diagnosis, this question could be misleading—as there was no way to determine whether participants did

or did not engage in care behaviors because (a) the parent did not follow treatment recommendations, (b) parent tasked the children with managing their own asthma care without the parent's assistance, or (c) the child no longer had asthma. Although a curative treatment for asthma is unknown, study findings on adjunctive or aggressive therapy to reduce asthma exacerbations and hospitalizations among pediatric patients found that some children will grow out of the condition as they age (Korang, Feinberg, Wetterslev, & Jakobsen, 2016).

Below presents a summary table of the responses associated with Q27. The findings summarized in Table 5 indicates that parents of asthmatic children are taking their prescribed medication, and that asthma management has occurred in the home at some point within the past year. However, the question did not address whether taking the medication was due to: (a) effective parental management skills and behaviors; (b) an avoidance of specific asthma triggers; (c) the implementation of different resources and control protocols at home; and (d) accurate recognition of asthma symptoms.

Table 4

Summary of Question 27 from the Modified, Panel-Reviewed Shorter Version of the Parent Demographic & Health Survey

Survey question	%	*f*
Q27. How long has it been since your child last took {his/her} asthma medication?		
Within the past year	78.70%	85
1 year to less than 3 years	12.96%	14
3 years to 5 years	6.48%	7
Don't know	1.85%	2

Table 6 outlines questions relating to physician cultural sensitivity and asthma management beliefs of minority parents of asthmatic children. To correspond with the approach used for RQ2, the Chi-square test of independence (X2) was used to answer this question, particularly because this test can assess the statistical independence or correlation between two categorical variables. To determine whether there is a significant relationship between these two categorical variables, all survey responses were tabulated, particularly questions that were specific to the variables that could answer RQ3. In reviewing RQ3 and the limitations that occurred, I modified the question and conducted a hypothesis test for the chi-square test of independence:

RQ3: Is physician cultural sensitivity associated with the asthma management beliefs of minority parents caring for their asthmatic children.

H_0: Physician cultural sensitivity and asthma management beliefs are independent.

H_a: Physician cultural sensitivity and asthma management beliefs are not independent.

Raw data of individual responses from Q24 and Q26 were first extracted from SurveyMonkey into Microsoft Excel. Once again, the Chi-Square Calculator was used to compute the following results: the Chi-square was 0.000375691, the df =1, and the p value=0.9845.

Table 5
Results of Chi-Square Test and Descriptive Statistics for Physician Cultural Sensitivity and Asthma Management Beliefs

Asthma management beliefs	Physician cultural sensitivity	
	Agree	Disagree
Agree	56 (53.70%)	2 (4.30%)
Disagree	44 (46.30%)	6 (3.70%)

Note. $\chi 2$ =, df = 1. Numbers in parentheses indicate column percentages.

The Chi-square test of independence was used for RQ3. Results indicated that physician cultural sensitivity is not statistically associated with the asthma management beliefs of parents; the results showed no difference between the effect of these two variables. These results suggest that these two variables are independent of one another and are not linked. For RQ3, there was a failure to reject the null hypothesis, and a lack of sufficient evidence to suggest the null was false at the 95% confidence.

Summary of RQ3 Results

RQ3 investigated whether physician cultural sensitivity is associated with the asthma management beliefs and care behaviors of minority parents caring for their asthmatic children. As aforementioned, there were several limitations to answering part of RQ3. Parental care behaviors could not be determined because the question that correlated with this variable included length of time. In this instance including length of time could be misleading because there could be several reasons why the child has stop taking the prescribed treatment. Therefore, to determine whether there is a significant relationship between physician cultural sensitivity and asthma management beliefs, the Chi-square test of independence was calculated to obtain a Chi-square statistic (2.8631) for RQ3. In addition, the p-value of .090632 was generated to determine whether the

probability of study results was caused by chance alone or by the variables under study. RQ3 was calculated using the Chi-square score of 2.8631, and by calculating the degrees of freedom was ca: df = (2-1) * (2-1) =1. To find statistical significance, the threshold was set using α=0.05. For the purposes of this study, the p-value 0.05 was then applied to evaluate the null hypothesis. Given the null hypothesis, I compared the p-value (0.9845) to the significance level (0.05) and accepted the null hypothesis that physician engagement and adherence to treatment are independent of one another and are not linked.

Trustworthiness of the Quantitative Element

When conducting the quantitative element of this study, several important aspects were thoughtfully considered to guarantee validity and reliability. For the purposes of this study, data collected from both elements were organized in parallel, but analyzed independently, and then converged after the analysis process. Furthermore, to address potential issues and ensure questionnaire salience among the target population, a panel of five experts from different health disciplines. The panel were tasked with validating the instrumentation by ensuring that the questions were culturally sensitive to minority parents. During the pilot testing process, reviewers offered insight into the survey's design and usability.

Summary

The purpose of this mixed-methods study was to examine whether there is a relationship between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence among minorities living in Denver, Colorado. In this

chapter, I presented the qualitative and quantitative findings of my study. Additionally, this chapter offered specific details on the (a) research instruments used, (b) the recruitment of participants, (c) research setting, (d) data collection process, and (e) themes created through data analysis. All responses collected from both the phenomenological interviews and surveys produced the data analyzed for the study. In terms of the qualitative element, responses gathered from in-depth interviews were arranged using NVivo 12. Qualitative findings relative to RQ1 indicated that minority parents value the relationship forged between their child's physician, the child, and the parents. However, the participants conveyed that this established relationship must include (a) ongoing trust and (b) the physician's willingness to understand the family's views about asthma, including their ethnic background and cultural characteristics. Participants valued a collaborative physician-parent-patient relationship, specifically when customized a treatment plan that corresponds to the child's lifestyle.

In terms of the quantitative aspect, Microsoft Excel was used to conduct a Chi-square independence test of the data. Quantitative findings were triangulated and merged into themes that referred back to the research questions. As aforementioned, there was a failure to reject the null hypothesis for RQ2 and RQ3. For both quantitative questions, data collected from the survey suggested that there is not relationship between the respondents held beliefs about physician engagement and asthma management to their related beliefs about physician cultural sensitivity. These results aligned with the qualitative findings regarding the importance of cultural sensitivity during physician engagement. The qualitative findings revealed that although parents appreciated a

culturally sensitive physician and the trusting relationship that ensued between them overtime, it was equally important that the physician listened attentively to the family's needs, their lived experiences, and potential barriers that could affect adherence to treatment.

As previously stated, there were several limitations to the quantitative element of the study. At first, I proposed to recruit 168 participants, over the age of 18, living in the City and County of Denver. However, 108 people consented and completed the survey. Lastly, limitations occurred in answering part of RQ3 that related to correlating physician cultural sensitivity to parental care behaviors. Care behaviors could not be determined because the question that correlated with this variable included length of time and proved to be misleading, particularly when determining the reasons why the child stopped taking his or her prescribed asthma treatment. Due to limitations in using certain multiple-choice items, sampling limitations, and constraints on generalizability, study results could not be applied to a general, much broader population of minority parents with asthmatic children living in Denver, Colorado. In Chapter 5, the results of the study will be summarized and interpreted. In addition, study limitations, recommendations for future research, social implications, and conclusions will be discussed.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to examine whether there is a relationship between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence among minorities living in Denver, Colorado. Chapter 5 provides a discussion about the study findings, limitations, and six recommendations for future research. For the qualitative aspect of this study, three key themes emerged through data analysis (a) cultural respect in patient engagement, (b) upholding an attitude of helpfulness toward the patient, and (c) maintaining an active physician-parent-patient relationship. These themes were examined based on current knowledge of asthma disparities among minority children and the perspectives of different participants involved in this study. In terms of the quantitative element of this study, a survey-questionnaire was used to assess the relationship between different categorical variables (i.e., physician engagement, adherence to child's prescribed asthma treatment, physician cultural sensitivity, and asthma management beliefs and care behaviors of minority parents). The phenomenological analysis of interview data was conducted to capture rich descriptions of the participants lived experiences.

Trends in childhood asthma prevalence have continued to decline since the early 1980s (Akinbami, Simon, & Rossen, 2016). Although the recurring epidemic of asthma exacerbations have plateaued, there has been a widening of disparities in the burden and treatment of asthma among minority children (Volerman et al., 2017). Many individual-level barriers and system-related factors contribute to asthma disparities in certain racial

ethnic groups, including (a) limited literacy skills, (b) the implementation of complex policies across health systems, (c) a lack of physician-patient-parent engagement, (d) urban environmental stress, (e) full access to subspecialty care, and (f) low or limited health literacy skills (Volerman et al., 2017). Several researchers have conducted studies examining specific aspects of asthma management, particularly those that contribute to the disparities in health and family management behaviors (i.e., parental perceptions about their child's asthma and medication) (Compas, et al., 2012; Koinis-Mitchell et al., 2010; McQuaid et al., 2005; Ohana & Mash, 2015; Rand, 2002; Volerman et al., 2017; Wright et al., 2004). However, this study aimed to understand how parental perceptions of physician cultural sensitivity influences the care of their asthmatic children and their treatment adherence. Assessing the significance of parent adherence in the management of childhood asthma is critical to understanding culturally sensitive health care that promotes positive health outcomes for minority children. Health strategies that include key components of culturally sensitive care must be tailored and comprehensive to fit the unique characteristics of minority families living in urban environments.

Summary of Qualitative Findings

Building collaborative relationships with a child's physician was especially important for the five parents and one guardian grandparent who participated in the qualitative interviews. From the participants' perspectives, forming this kind of relationship requires trust and ongoing communication between those involved. All the participants expressed the significance of having physicians who are genuine, informative, and culturally sensitive, particularly when addressing their family's needs,

questions, or concerns. However, they noted that physicians must remain committed to understanding their family's dynamic, values, and cultural beliefs.

RQ1 examined how minority parents of asthmatic children in Denver perceived the cultural sensitivity of their children's physician. The participants felt that nurturing a collaborative physician-parent-patient relationship is necessary when tailoring an effective asthma treatment plan that fits a child's daily routine. They all expressed the importance of spending quality time with the child's physician during each medical encounter. The caretakers expressed that these interactions were significant, particularly when discussing the child's current lifestyle, asthma plan, and treatment with the physician. During the interview sessions, all the participants discussed their desire to collaborate with physicians who remain responsive as a child grows and matures into adolescence or young adulthood. However, it was important to all the participants that the child's physician remain interested in the family's diverse cultural health beliefs. For most of them, the role and respect of family culture in health and decision making were important components of pediatric care. According to some participants, this level of respectful care required the physician to (a) be attentive when conversing with the child, (b) get acquainted with the entire family, (c) understand the family's perspective, particularly when considering all the barriers that could affect the child's asthma care plan; and (d) provide proactive, positive solutions.

Emergent Themes

Theme 1: Cultural Respect in Patient Engagement

The theme of cultural respect in patient engagement pertained to how participants perceived the physician's respect of their culture when engaging with the family during medical encounters. Most participants felt that their child's physician made a real effort to understand the family's dynamic, values, traditions, needs, and preferences. However, all the participants noted the importance of having genuine conversations that support the physician-patient-parent relationship that they worked hard to develop overtime. Several participants stated that providing this kind of physician engagement helps in building trust and parental confidence, especially when questions arise about the child's asthma medication, action plan, or other concerns (i.e., the child's desire to play sports). From the participants' perspectives, culturally responsive physicians are people who genuinely want to understand the beliefs and health behaviors of their patients. However, most of them also noted that these physicians should value the role of family as active participants in their child's asthma care plan. Participant perspectives related to RQ1 suggest that cultural respect in patient engagement can have a positive effect on the families of asthmatic children, particularly when providing medical recommendations to increase adherence to treatment and improving patient satisfaction.

Theme 2: Upholding an Attitude of Helpfulness Toward the Patient

Most participants in this study discussed their need for support by their child's physicians. All the interviewees shared their perspectives on collaborating with physicians who were helpful and empathetic when answering questions about (a) the

daily use of certain asthma medications, (b) the possibility of side effects, and (c) how to handle the severity of asthma symptoms. For some parents, finding information that pertains to their child's specific needs can become an eventful ordeal (Archibald et al., 2015; Brown et al., 2010). All the participants discussed the importance of receiving information to properly treat the child's condition. They all stated that physicians should be friendly, accommodating, respectful, and knowledgeable about ways to keep the child's asthma under control. However, most participants stated that physicians should remain sensitive to the family's cultural practices and work with family members to negotiate an acceptable asthma plan. In terms of this study, identifying and analyzing this theme was significant because it highlighted the impact of establishing meaningful connections with minority families that are supportive, patient-centered, and include culturally sensitive communication during every medical encounter.

Theme 3: Maintaining an Active Physician-Parent-Patient Relationship

All the participants expressed their desire to maintain a collaborative relationship with the child's physician. For each of them, keeping the lines of communication open with the child's physician is important, particularly when decisions about the asthma treatment plan must be made. One participant spoke in-depth about the value of communication during each medical visit, particularly when the physician and their child is spending an equal amount of time talking with one another. For most participants, having a strong physician-parent-patient relationship requires a level of comfort and sincerity. In all the interviews, each participant spoke about the physician's ability to engage in difficult conversations without getting nervous, agitated, or impatient with the

child or them. For some parents, it was hard to explain what their child was facing daily, as some asthma symptoms could be episodic or seasonal or range from mild to severe. This theme highlighted the significance of physicians who can respond positively to the direct and indirect messages conveyed by an asthmatic child or their family member. For most participants, demonstrating these unique skillsets allows the physician to understand their family's perspective and include that point of view in the child's asthma treatment plan.

Summary of Quantitative Findings

RQ2 examined whether perceived physician engagement correlates with minority parents' adherence to prescribed treatment for their asthmatic children. To answer this question, parents and legal guardians of asthmatic children were invited to participate in a survey-questionnaire. Initially, it was proposed to recruit 168 adult participants who lived in Denver; however, only 108 people were eligible to complete the survey. To test the strength of Physician Engagement and Adherence to Treatment, the Chi-square test of independence was conducted to determine whether these two categorical variables were independent of one another. Additionally, this significance test was used to validate whether the results supporting the H_0 were not due to chance alone. The data revealed no statistically significant relationship between the measured variables. The independence of physician engagement and treatment adherence appears to resolve the qualitative perceptions about the lack of physician cultural sensitivity. Respondents who participated in the qualitative aspect of this study believed that when physicians are willing to understand the cultural differences and backgrounds of their patients, they can begin to

engage them in a meaningful way that allows for trust, mutual respect, collaboration, and better medical care.

RQ3 examined whether physician cultural sensitivity correlates with the asthma management beliefs and care behaviors of minority parents caring for their asthmatic children. There were several limitations to answering part of this question. After reviewing all the data gathered in relation to RQ3, it was determined that care behaviors could not be properly measured because the question linked to this variable included length of time. During the analysis process, it was determined that including length of time could misrepresent the data, as there could be many reasons why the child is no longer taking the prescribed treatment. Thus, to examine whether there is a significant relationship between physician cultural sensitivity and asthma management beliefs, the Chi-square test of independence was conducted and the null hypothesis was accepted. The results revealed that physician engagement and adherence to treatment are independent of one another.

Interpretation of the Findings

Qualitative Element

The study's qualitative findings suggested that parents of asthmatic children value the collaborative relationship formed between their child's physician and immediate family members. Qualitative findings relative to RQ1 revealed that minority parents appreciate the collaborative partnership formed between their child's physician, the child and them. However, the participants stated that this relationship must be genuine and incorporate (a) trust, and (b) a commitment by the physician to understand the family's

views about asthma, including a willingness to value their ethnic background and cultural characteristics. Most of the participants felt that building a positive relationship with culturally sensitive physicians requires trust between all involved. However, they also believed that the physician should gain a good understanding about the family's structure, ethnic background, values, and cultural traits. As Paez (2009) pointed out, establishing strong physician-patient-parent relationships are key for delivering quality health services. Conversely, these relationships must include a partnership of trust and mutual respect to could help mitigate friction, misunderstandings, miscommunication, and cross-cultural differences. The participants also voiced the importance of having an honest physician who can (a) consider the cultural differences between patients when making medical recommendations, (b) connect with the entire family on a social level by seeing their point of view, and (c) verbally acknowledge the child's or parent's feelings. All the participants stated in some way that spending quality time with the physician allows them the opportunity to ask clarifying questions and address any lingering concerns. For several of them, being involved in the decision-making process enables the child, parent, and physician to (a) share relevant information, (b) state their treatment preferences, and (c) agree on a tangible treatment plan. Other participants expressed how maintaining an active physician-parent-patient relationship is helpful when overcoming barriers to asthma care and when remaining compliant to medical recommendations.

Based upon existing knowledge, it was reasonable to state that the findings of RQ1 aligned with and supported other studies, including health outcomes. The qualitative element of this study aimed to extend the current literature by focusing on how minority

parents in Denver perceive the cultural sensitivity of the physician caring for their asthmatic children. What made this research unique was that it focused on minority subgroup populations, such as American Indians, Asian Indians, and Chinese-Filipino descent. Historically, asthma prevalence literature among these smaller minority subgroups have been largely excluded or underrepresented (Brim, Rudd, Funk, & Callahan, 2008; Mehal, Holman, Steiner, Bartholomew, & Singleton 2014).

During the interviews, all the participants self-identified themselves as people of different multiracial backgrounds. Indeed, previous efforts have been made to understand the complexity of asthma, including the effectiveness of pharmacological and therapeutic options for pediatric asthmatic patients (Colice, 2011; McIvor, 2015). However, these endeavors have yielded varying results, particularly in terms of (a) improving self-management behaviors in asthmatic children, (b) adherence to asthma treatment by parents, (c) decreasing trends in health care utilization and costs related to asthma, or (d) reducing disease prevalence across racial-ethnic minorities (Archibald, Caine, Ali, Hartling, & Scott, 2015; Burgess, Sly, & Devadason, 2011). Therefore, the findings of RQ1 will add great significance to the existing literature in a very specific way.

In terms of this study, the theoretical framework employed was the theory of reasoned action (TRA) (Azjen & Fishbein, 1980; Fishbein & Azjen, 1975). TRA offered a cognitive approach for understanding the relationship between the attitudes of people and human behavior (Azjen & Fishbein, 1980). Using this theoretical concept centered on individual motivation as a main factor for predicting how people will engage in certain behaviors based on their existing actions, attitudes, beliefs, and behavioral intentions

(Azjen & Fishbein, 1980). Azjen and Fishbein (1980) theorized that TRA offers insight into why people choose to behave a certain way based on what they envision as a result of engaging in that health behavior. Azjen and Fishbein (1980) also note that a person's preexisting attitudes could influence health behaviors that impose positive or negative consequences. Relating TRA to this study allowed the behavioral characteristics of participants to unfold, thereby offering insight into the motivating factors and barriers that could influence behavior (Azjen & Fishbein, 1980). The qualitative findings of this study supported TRA in many ways. In terms of this study, the participants had a desire to engage with their child's physician in sharing decisions about treatment and care. For most parents, their decision and intention to collaborate with the physician during each medical encounter increased their desire to comply with their child's asthma plan (i.e., follow medical recommendations). Therefore, the intention to follow the asthma action plan predicted their behavior in adhering to treatment. According to Azjen and Fishbein (1980), when people believe that the suggested behavior is positive and will produce a positive outcome, they will be motivated to perform the behavior.

Additionally, phenomenology was appropriately used to examine the lived experiences of parents who shared commonalities about how they perceive physician cultural sensitivity, physician engagement, and adhering to prescribe treatment when caring for their asthmatic children. As Sutton and Austin (2015) posited, phenomenological research aims to generate rich descriptions of shared experiences, instead of hypothesizing the attitudes that people attribute to events they encounter in the real world. To ensure the trustworthiness of the data collected and qualitative content

analysis, all responses were organized using NVivo 12. In addition, common themes were logged, extracted, and arranged in Microsoft Word. Throughout the coding process, NVivo supported thematic analysis, theory-building and collapsing complex content. Using this software for the qualitative aspect of this study provided a means for arranging, coding, and connecting raw data into themes that validated the interpretation of data.

Quantitative Element

For this aspect of the study, SurveyMonkey was used to collect survey responses. To facilitate the data analysis process with ease, a decision was made to export the accumulated data from SurveyMonkey into Microsoft Excel. Using Excel for quantitative data analysis proved beneficial—as the software package provided a suite of inferential statistical functionalities that was used to crosscheck the results obtained from the Chi-square calculator. Based on the sample of set data, and to reach a conclusion about the population under inquiry, the cross-tabulation feature in Excel was used analyze the correlation of two categorical variables to determine a strong relationship between them. For both RQ2 and RQ3, the quantitative findings were triangulated and merged into themes and concepts that related back to the research questions and enriched understanding. The study's quantitative findings revealed that most participants involved in this study either agreed or strongly agreed that their child's physician is culturally sensitive, engages with them during all medical encounters, listens attentively to their concerns, and makes recommendations that the family could comply with. These results aligned with the qualitative findings that parents who establish a collaborative

relationship with physicians based shared decision-making feel confident and competent in their abilities to manage their child's asthma. Although responses that favorably answered questions that pertained to RQ2 and RQ3, the overall results did not indicate whether the child and/or parent has adhered or has continued to adhere to treatment. Due to the lack of survey questions or additional multiple-choice options, sampling size, and constraints on generalizability—data collected from the quantitative survey suggest that there is a no significant relationship between (a) physician engagement and parents' adherence to treatment and (b) physician cultural sensitivity and asthma management beliefs.

Implications of the Findings

The findings of this study have the potential to impact the burdens and high demands of minority parents charged with managing their child's asthma. The findings indicated that parents who feel recognized, valued, and respected by their child's physician were more likely to be engaged in shared decision-making about treatment. Physicians and parents who take this approach can work together to identify and address the child's health care needs. Including the preferences and health care values of minority families into a child's treatment plan could increase their adherence to medical recommendations. This study also sheds light into why building strong physician-patient-parent relationships can be effective in terms of (a) reducing certain factors that may cause or contribute to patient vulnerability, (b) alleviating the negative lived experiences endured by families, (c) improving asthma self-management among children that are transitioning into young adulthood, (d) increasing parental self-efficacy in managing their

child's condition, and (e) fostering the cultural sensitivity of physicians who serve the needs of diverse minority families across the United State. In addition, the study findings could help physicians connect with parents on a social level by (a) being supportive and sensitive to meet the needs of parents and (b) understanding the barriers to care and treatment compliance.

By considering the lived experiences of parents of asthmatic children, this study presents concrete results that may help tailor treatment plans that can (a) meet the needs of minority families, (b) ensure patient satisfaction, and (c) improve the patient or parental experience of pediatric care. The findings can inform primary physicians on how to provide parents with culture-specific resources and education materials that integrate all aspects of asthma care. The results revealed that managing asthma in children can be extremely difficult, particularly because there are several underlying causes for asthma exacerbations, etiologies, and health outcomes. Therefore, it is imperative that pediatric physicians take the necessary steps to consciously defer their judgements until they identify barriers and problematic patterns that could lead to medical errors, nonadherence, undertreatment of asthma symptoms, higher health costs and utilization. By working collaboratively to address the issues posed by childhood asthma, physicians can start to reassure minority families of their willingness to (a) flexible in their approach during the visit, (b) take the time to establish trust, (c) give the appropriate recommendations to decrease varying levels of treatment nonadherence, and (d) implement specific behavioral interventions aimed at improving long-term asthma outcomes, particularly in minority children with asthma. The qualitative findings of the

study suggest that families who perceive their child's physician as culturally sensitive are prone to (a) work with the physician to implement a viable asthma action plan, (b) employ symptom-monitoring strategies at home on a regular basis, and (c) adhere to medication.

Theory and Research

This study was based on the phenomenon that a relationship exists between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence among minority children who live in Denver, Colorado. To determine if this statement could be true was to conduct a mix-methods study that involved collecting and analyzing both quantitative and qualitative data. In terms of the qualitative element of the study, it was necessary to obtain the lived experiences of the recruited sample. For this part of the study, it was concluded that when culturally sensitive health care is implemented, minority families are more likely to (a) share in the decision-making process, (b) communicate better with the physician, even when disagreements about the child's care arise, and (c) adherence to long-term asthma treatment.

The findings aligned perfectly with TRA by Azjen and Fishbein's (1980) and other studies that discussed the impact of effective physician-patient-parent communication to improve adherence multidisciplinary treatment in asthma therapy and patient satisfaction (Beach, Saha, & Cooper, 2006; Diette & Rand, 2007; DiMatteo, Hays, & Prince, 1986; Lieu et al.,2004; Tucker et al., 2013; Vahdat, Hamzehgardeshi, Hessam, & Hamzehgardeshi, 2014). For the quantitative element, a survey-questionnaire

was created to assess the correlation between different categorical variables: physician engagement; adherence to child's prescribed asthma treatment; physician cultural sensitivity; asthma management beliefs and care behaviors of minority parents. Although there were many limitations to this component, data derived from the surveys proved useful. Parents, pediatric patients, and their families, including physicians and health organizations, such as The Asthma and Allergy Foundation of America (2019) and the Allergy & Asthma Network (2019) can benefit from the valuable information this study offers. This research highlights the importance the communication and partnership between the physician, child, and parent. The findings promote the implementation of culturally sensitive interventions that encourages medication adherence, promotes positive health behaviors, improves health outcomes, and increases the quality of life for all racial-ethnic minority children. While these findings may not necessarily lead to significant changes in the way parents care for their asthmatic children, the information presented in this study certainly adds to why patient and parental involvement in culturally sensitive health care impacts the process of recommended treatment adherence among culturally diverse groups across Denver, including the United States.

Limitations of the Study

The delimitations for this study included: minority parents of asthmatic children aged 0-17 years old. The eligibility for selection and participation of this study also included (a) parents and child who live together, (b) children who have a confirmed diagnosis of asthma from a primary care physician, (c) children who are currently using a rescue inhaler or other asthma medications at home, and (d) parents who have attended

more than one medical visit with their child's primary doctor, to urgent care, or to the ER within the past 12 months. The research participants all self-identified themselves as multiracial and/or married to someone of another ethnic group. Additionally, they all lived within the six central counties in Denver, Colorado. Because this study was based on certain delimitations, the generalizability of the findings was greatly compromised. According to the United States Census Bureau (2016), Denver has become the 19th-most populated city in the United States. Thus, the results were limited. However, it is believed that this research included a representative pool of minority parents who resided in Denver. There is a strong possibility that the perceptions of participants involved in this study, including other cultural, social, economic, and environmental factors may differ from the perspectives of other minority parents who reside in another region across the United States.

For the qualitative element of the study, the use of NVivo 12 proved to be extremely beneficial. Utilizing the NVivo software package offered a functional method for coding, and collapsing complex content into emerging themes. Although HyperRESEARCH, MaxQDA, and Atlas.ti 8 are robust tools to perform a qualitative analysis of textual, graphical, audio data—using NVivo allowed the capacity to sort, match, and link ideas and patterns of data with ease. The software package also enabled the exchange of data stored Microsoft Word and SurveyMonkey. However, it is important to note that if this study was replicated and analyzed using a different software system, it may not generate the same results.

To conduct a phenomenological study, Creswell (1998) proposed a sample size of 5 to 25 participants, and Morse (1994) recommended a sample of no less than six. This study included representative sample size of six to determine a true relationship or difference in the phenomenon. For the qualitative component, the recruitment of participants involved snowball sampling to gain access to a diversified set of minority parents living in Denver. This method was well suited for this study and ensured the validity of the findings. However, these results would only apply, to the same kind of settings that involved parents who (a) were caring for children with a similar illness, (b) are of similar ethnic groups, (c) have attended one or more medical visits to their child's primary doctor, to urgent care, or to the ER within the past 12 months. However, the study findings could not be generalized outside of this study's framework because of these specific delimitations.

As aforementioned, there were many limitations to the quantitative element of this study. At the beginning of the study, using convenience sampling was proposed. However, using the snowball method was useful in recruiting the study's participants. To ensure external validity, a web-based sample size calculator was used to obtain an adequate sample size of 168 participants to interview, and to statistically achieve results that were significant and reflected the target population. However, only 108 people consented and completed the survey. Thus, the sample size was not large enough to generalize to a broader population of minority parents who reside in different parts of the United States. Other limitations arose when answering part of RQ3 that examined the correlation between physician cultural sensitivity to parental care behaviors.

Consequently, care behaviors could not be properly determined—as the question related with this variable involved the length of time which could misrepresent the study's findings if analyzed. For example, the could be numerous reasons why the child discontinued his or her asthma treatment.

Recommendations for Future Research

While acknowledging the limitations noted in this study, including the number of gaps in knowledge relating to the relationship between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence among minorities, it would be beneficial to extend the literature by conducting similar studies across the United States in urban locales using the same delimitations, criteria, research method and design. However, for the quantitative element, it would be advantageous to include a larger sample size of diverse, sub-minority populations (i.e., Asian Americans, Alaska Natives, Native Hawaiians, Other Pacific Islanders, and multiracial groups). Further extending the scope research of this research and Tucker et al. (2003), I would suggest conducting at least ten focus group sessions with at least 100 minority parents from different minority background using comparative research methods. However, the quantitative survey-questions could require only yes or no responses, and would include two questions that were not included in this study: (1) Is your child's physician culturally sensitive to your family's needs; and (2) Do you adhere to the treatment recommendations of your child's physician. This could help validate the trustworthiness of this study's findings and possibly close any existing gaps in research regarding how minority parents perceive the cultural sensitivity of their child's physician and whether

their lived experiences with that physician impacts how they or the patient adheres to medical recommendations. Otherwise, I recommend conducting a study that would assess a needs-led, culturally sensitive intervention tailored by minority parents to determine whether physicians could be responsive in alleviating the medical issues of their pediatric patients across different cultures. However, I would suggest including certain themes, phrases, and characteristics that some minority groups may consider measures of culturally sensitive health care or patient-centered health care.

Summary and Conclusions

This mixed-methods study focused on parental perceptions of physician cultural sensitivity and sought to assess whether these preexisting beliefs impacts parents' self-efficacy to manage their child's asthma care and treatment. In addition, this research aimed to increase understanding about (a) the role of asthma disease management in the care behaviors and (b) the real-world experiences of parents caring for their asthmatic children. My study is unique because it addresses an under-researched area of perceptual beliefs by minority parents toward culturally-sensitive health care, including those subgroups that are largely underrepresented in existing literature. These smaller groups could be affected by health inequalities in urban environments (CDC, 2012; Wall et al., 2013).

The qualitative element of this study was approached from a phenomenological stance, which focuses on the lived-experiences of human beings (Sutton & Austin, 2015). Overall, the aim of phenomenological research is to capture the shared commonalities of a phenomenon, instead of hypothesizing the ideas, beliefs and feelings people might

assign to their personal life-experiences (Sutton & Austin, 2015). Applying this concept to my study offered an opportunity to understand the respective views of the participants, thereby providing an understanding about the factors that impact how parents make decisions regarding their child's health. Also, the theoretical framework used for this project was based on the theory of reasoned action (TRA) (Azjen & Fishbein, 1980). Azjen and Fishbein (1980) posited that a person's behavioral intention is the determining factor in how humans behave (Azjen & Fishbein, 1980). Overall, a person's motivation and rational thinking are both determining factors for predicting how he/she behaves based on preexisting attitudes and beliefs about what the end-result will be (Azjen & Fishbein, 1980). According to Azjen and Fishbein (1980), preexisting attitudes and beliefs may influence health behaviors which are often linked to positive or negative health outcomes. These life experiences can certainly affect a person's physical, mental, or social well-being (Azjen & Fishbein, 1980). When a person feels confident in his or her abilities to perform a health behavior repeatedly, the person is more likely to adopt that behavior overtime (Azjen & Fishbein, 980). Using TRA in this study provided a strong theoretical foundation that enabled the behavioral characteristics of parents to emerge, thereby providing a deeper understanding into the factors that motivated or deterred how they (a) cared for their asthmatic children and (b) adhered to medical recommendations.

For the quantitative element of this study, a descriptive statistical survey-questionnaire was utilized. Including a quantitative component was relevant to this research—as it included self-reporting measures that parents could answer, for example,

their adherence to medical recommendations, or if they believe that their child's physician is culturally sensitive. For quantitative portion of this study, I examined the correlation between the dependent variable (adherence to child's prescribed asthma treatment), and the independent variables (perceived physician cultural sensitivity; physician engagement). The research also incorporates previously validated survey instruments that were modified, peer-reviewed, and integrated into the study.

When reviewing the existing literature, I expected that the study's findings would reveal that parental perceptions of physician cultural sensitivity would have an impact on whether different groups of minority parents would adhere to treatment when caring for their asthmatic child. In terms of this study, it was my intention to enlighten the public health community on how culturally sensitive care (a) enables the respect of cultural differences between physician-child-parents to emerge and (b) can influence the ways in which pediatric patients and their families value health, including the quality of their health care services.

In terms of the qualitative element, I related the findings of this research to previous studies. All the participants expressed the significance of having a culturally sensitive physician who is respectful, trustworthy, empathic, and willing to establish meaningful partnership with the child and family members. Raising awareness about pediatric asthma is critical—as the chronic disease continues to impact the everyday lives of children and their families, especially in minorities (Lindsay & Heaney, 2013). In the past, scholarly literature on pediatric asthma has addressed the disparities in health care which has focused primarily on the burdens of African American and Hispanic children

who reside in urban cities (Asthma & Allergy Foundation of America, 2017). Often, the ethnic disparities in the burden and treatment of asthma among these populations are related to: (a) impoverished conditions, (b) poor urban-air quality, (c) allergen exposure, (d) lack of knowledge, (e) inadequate health care, (f) medication misuse, and (g) resource scarce-communities (The National Medical Association, 2017). Nevertheless, the complexities of treating asthma effectively have become an issue of concern for smaller minority subgroups living rural and urban areas (CDC, 2012).

Optimistically, the findings presented this study aims to support the potential for positive social change in terms of changing the health-care behaviors of minority parents with asthmatic children, increasing parental self-efficacy in managing their child's asthma, and improving the cultural sensitivity of physicians who serve the needs of diverse minority families across the United States. In addition, the results of the study presented significant opportunities to bridge several gaps in understanding how cultural sensitivity among physicians works to improve (a) communication between physician-patient-parent, (b) the delivery of quality care to patients from different cultural backgrounds, and eventually, (c) asthma outcome measures in minority children. By doing so, the medical community can alleviate the various health disparities that adversely impact minority families, particularly for those who live in urban localities across the United States. The implications for this kind of social change requires an emphasis on medical training courses that equip physicians with culturally appropriate tools and resources that aim to: (a) promote positive physician-patient-parent interactions; (b) empower parents of asthmatic children to engage in shared treatment-related

discussions and (c) reduce disparities in health service utilization among minority children with asthma.

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Appendix A: Permission to use T-CSHCPI-PF

UF UNIVERSITY of FLORIDA

[redacted]

Date: 6/29/2018

To: Ms. Narue Wright-Jegede

From: Carolyn M. Tucker, Ph.D.
UF Florida Blue Endowed Chair in Health Disparities Research
Distinguished Alumni Professor
Professor, Department of Psychology
Professor, Community Health and Family Medicine
Director, UF Health Disparities Research and Intervention Program

Re: Request to adapt and use the Tucker Culturally Sensitive Health Care Provider Inventory – Patient Form

I am writing to confirm that you have my permission to use the Tucker Culturally Sensitive Health Care Provider Inventory – Patient Form (T-SCHSPI-PF), specifically the adaptation of the instrument that she has created. You have my permission to only use this instrument to evaluate how culturally diverse parents perceive physician cultural sensitivity during medical encounters with their child's physician as a part of the proposed study described below:

Ms. Wright-Jegede will be conducting a study on "Parental Perception of Physician Cultural Sensitivity and Adherence to Asthma Treatment." Situated in the Midwest region of the United States, this study will use a mixed-methods approach through the integration of both qualitative and quantitative research designs. Descriptive statistical surveys and questionnaires will be used in combination with in-depth, 1-on-1 phenomenological interviews to examine whether a relationship exists between parental perceptions of physician cultural sensitivity and parental care in asthma treatment adherence. The qualitative portion of the study will include data collected from 1-on-1 interviews with ethnic minority parents using semi-structured topic guides relating to perceived, physician cultural sensitivity. The quantitative portion of the study will include

self-reported information from parents or caregivers of asthmatic children. To measure the differences in parent's non-adherence to treatment or adherence treatment, including other factors such as medication dependency and adverse effects—previously validated questionnaires and scales will be utilized. Optimistically, the findings presented in her study may support the potential for positive social change in terms of changing the health-care behaviors of minority parents with asthmatic children, increasing *parental self*-efficacy in *managing* their child's *asthma, and improving the* cultural sensitivity of physicians who serve the needs of diverse minority families.

You have permission to use the instrument on the conditions that it not be disseminated to any other parties who are not related to the above described purpose without authorized permission. If the instrument's use produces any results/data, information on the data and results will be sent to Dr. Carolyn M. Tucker. If these results are published in any format (e.g., academic journal, newspaper, online article), Dr. Carolyn M. Tucker will be acknowledged in the text of the publication. If the instrument is adapted, the adapted instrument will be sent to Dr. Carolyn M. Tucker.

Dr. Tucker
Carolyn M. Tucker, Ph.D.

UF Florida Blue Endowed Chair in Health Disparities Research
Distinguished Alumni Professor
Director, UF Health Disparities Research and Intervention Program,
College of Medicine
UF Research Foundation Professor
Professor, Department of Psychology
Professor, Department of Community Health and Family Medicine
Affiliate Professor, Department of Pediatrics
UF - Gainesville
Courtesy Professor, Department of Community Health and Family Medicine
Courtesy Professor, Department of Psychiatry
UF - Jacksonville
Email: [redacted]
Phone: [redacted]
Fax: [redacted]
Personal Website: [redacted]
UF HDRIP [redacted]

Appendix B: Quantitative Survey, Parent Demographic and Health Data Questionnaire

Directions: Please answer the questions below by filling in the blank or shading in the circle next to the answer you choose like this

Basic background information

1. Are you 18 years of age or older?

    - Yes
    - No

1. What is your gender?

    - Male
    - Female

2. Do you currently live in Denver, Colorado?

    - Yes
    - No

3. Are you of Hispanic, Latino, or Spanish origin. Please shade in one or more of the circles that best describes your ethnicity:

    - No, not of Hispanic, Latino/a, or Spanish origin
    - Yes, Mexican, Mexican American, Chicano/a
    - Yes, Puerto Rican
    - Yes, Cuban
    - Yes, another Hispanic, Latino/a, or Spanish origin – Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on: _____

4. What is your race? You may mark more than one circle.

    - White
    - Black or African American
    - American Indian or Alaska Native – Print race of enrolled or principal tribe: _____
    - Asian Indian
    - Chinese
    - Filipino
    - Other Asian- Print race, for example for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on: _____

- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander – Print race, for example, Fijian, Tongan, and so on: _____
- Some other race – Print race: _____

5. Where were you born?

- If born in the United States—Print name of state _____
- Outside the United States – Print name of foreign country, or Puerto Rico, Guam, etc._____

7. What is the highest degree or level of school you have completed?

- No schooling completed
- High school or less
- Some college
- Associates degree
- Bachelor's degree
- Master's degree
- Professional degree beyond bachelor's degree
- Doctorate degree

8. What is your marital status?

- Never married
- Married
- Widowed
- Divorced
- Separated

9a. Do you speak a language other than English at home?

- Yes
- No

9b. If yes, what is the language? For example: Korean, Italian, Spanish, Vietnamese: _____

10. What is your annual income from all sources:

    - Less than $20,000
    - $20,000 to $34,999
    - $35,000 to $49,999
    - $50,000 to $74,999
    - $75,000 to $100,000
    - Over $100,000

11. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?

    - Yes
    - No

12. How many children less than 18 years of age live in your household: ____

13. How are you related to the child? Are you a:

    - Parent (include biologic, step, or adoptive parent)
    - Grandparent
    - Foster parent or guardian
    - Sibling (include biologic, step, and adoptive sibling)
    - Other relative
    - Not related in any way

14. Is the child a boy or a girl?

    - Boy
    - Girl

15. Is the child Hispanic, Latino/a, or Spanish origin?

    - No, not of Hispanic, Latino/a, or Spanish origin
    - Yes, Mexican, Mexican American, Chicano/a
    - Yes, Puerto Rican
    - Yes, Cuban
    - Yes, another Hispanic, Latino/a, or Spanish origin – Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on: _____

16. Which one or more of the following would you say is the race of the child? Select all that apply.

    - White
    - Black or African American
    - American Indian or Alaska Native
    - Asian
    - Asian Indian
    - Chinese
    - Filipino
    - Japanese
    - Korean
    - Vietnamese
    - Other Asian
    - Pacific Islander
    - Native Hawaiian
    - Guamanian or Chamorro
    - Samoan
    - Other Pacific Islander

17. Has a doctor, nurse or other health professional EVER said that the child has asthma?

    - Yes
    - No
    - Don't Know/Not Sure

18. Does the child still have asthma?

    - Yes
    - No

19. During the past 12 months how many times did your child see a physician or another health professional for a routine checkup for {his/her} asthma? Health professional includes physicians, nurses, physician assistants, nurse practitioners, and health educators:

    ENTER NUMBER HERE: _____

    - None
    - Don't Know

20. How long has it been since you last talked to a doctor or other health professional about his/her asthma? This could have been in a doctor's office, the hospital, an emergency room or urgent care center.

    - Never
    - Within the past year
    - 1 year to less than 3 years ago
    - 3 years to 5 years ago
    - More than 5 years ago
    - Don't Know

21. Has a physician or other health professional ever taught you or your child about how to recognize early signs or symptoms of an asthma episode? Health professional includes physicians, nurses, physician assistants, nurse practitioners, and health educators:

    - Yes
    - No
    - Don't Know

22. Has a physician or other health professional ever taught you or your child what to do during an asthma episode or attack? Health professional includes doctors, nurses, physician assistants, nurse practitioners, and health educator:

    - Yes
    - No
    - Don't Know

23. How long has it been since your child last took {his/her} asthma medication?

    - Never
    - Less than one day ago
    - 1-6 days ago
    - 1 week to less than 3 months ago
    - 3 months to less than 1 year ago
    - 1 year to less than 3 years ago
    - 3 years to 5 years ago
    - More than 5 years ago
    - Don't Know

24. In general, how satisfied are you with the health care you received? Would you say:

    - Very satisfied
    - Somewhat satisfied
    - Not at all satisfied

25. Which one or more of the following would you say is the race of your child's primary physician? Select all that apply.

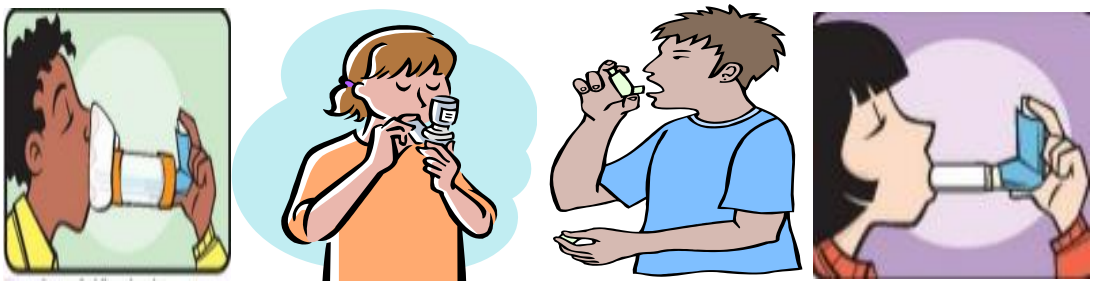
    - White
    - Black or African American
    - American Indian or Alaska Native
    - Asian
    - Asian Indian
    - Chinese
    - Filipino
    - Hispanic
    - Japanese
    - Korean
    - Vietnamese
    - Other Asian
    - Pacific Islander
    - Native Hawaiian
    - Guamanian or Chamorro
    - Samoan
    - Other Pacific Islander

26. Do you believe that your child's primary care physician is culturally sensitive?

    - Agree
    - Disagree

Appendix C: Recruitment Flyer, Qualitative

PARTICIPANTS NEEDED FOR RESEARCH STUDY



Are you a minority parent with an asthmatic child? If so, a study is being conducted in your area to investigate whether parents' perceptions of physician cultural sensitivity affect how they follow medical recommendations for their child's asthma treatment.

Who is Eligible?

- Parents over the age of 18
- Ethnic minority families
- Parents of children who received a medical diagnosis of asthma from a health provider
- Parent who have attended (with asthmatic child) 1 or more visits with the primary physician, or to urgent care, or the emergency room within the past 12 months
- Family must live in the City and County of Denver
- Parents who read and write English fluently

You will be asked to:

- Sign an informed consent form
- Participate in a face-to-face interview (approx. 1 hour), with a potential for follow-up questioning if necessary*

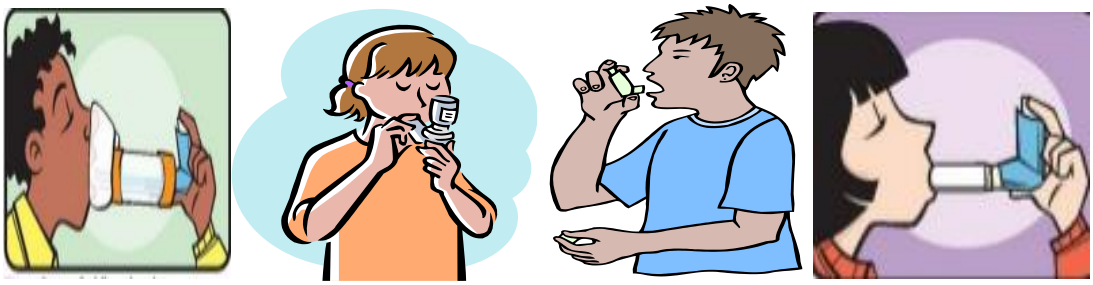
*Participants will receive a pre-paid $10.00 cash card as compensation immediately following the completion of the interview. This study is being conducted by Narue Wright-Jegede, a doctoral student in Public Health at Walden University. The title of the project is "Parental Perception of Physician Cultural Sensitivity and Adherence to Asthma Treatment".

Your participant will remain strictly **CONFIDENTIAL.**

If you have any questions or are interested in participating, please contact me at [redacted] or Email: [redacted]

Appendix D: Recruitment Flyer, Quantitative

PARTICIPANTS NEEDED FOR RESEARCH STUDY



Are you a minority parent with an asthmatic child? If so, a study is being conducted in your area to investigate whether parents' perceptions of physician cultural sensitivity affect how they follow medical recommendations for their child's asthma treatment.

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- Parents over the age of 18
- Ethnic minority families
- Parents of children who received a medical diagnosis of asthma from a health provider
- Parent who have attended (with asthmatic child) 1 or more visits with primary physician, or to urgent care, or the emergency room within the past 12 months
- Family must live within the City and County of Denver
- Parents who read and write English fluently

You will be asked to:

- Provide informed consent
- Participate in an online multiple-choice survey (approx. 30 minutes)

*This study is being conducted by Narue Wright-Jegede, a doctoral student in Public Health at Walden University. The title of the project is "Parental Perception of Physician Cultural Sensitivity and Adherence to Asthma Treatment". There is no compensation for taking the demographic survey and questionnaire. However, your participation in this study will contribute to an under-researched area of perceptual viewpoints by racial-ethnic parents towards culturally-sensitive medical care and whether these pre-existing beliefs affects a parent's self-efficacy to manage their child's prescribed asthma treatment.

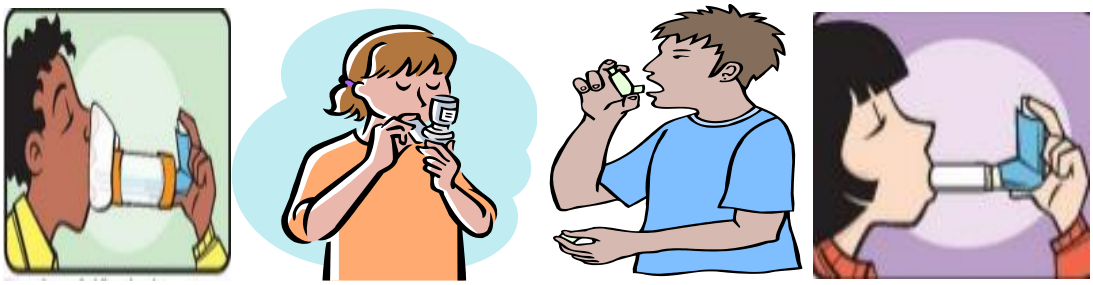
Your participant will remain strictly **CONFIDENTIAL.**

If you would like to participate in this study, please access this link for the survey-questionnaire at [redacted] If you have any questions about participating in this study, please contact the researcher, Narue Wright-Jegede at [redacted] or email: [redacted]

Appendix E: Recruitment Flyer Invitation, Qualitative Interview (Social Media Draft)

Initial Post with attached flyer: Are you a minority parent with an asthmatic child? If so, a study is being conducted in the City and County of Denver to investigate whether parents' perceptions of physician of physician cultural sensitivity affect how they follow medical recommendations for their child's asthma treatment.

PARTICIPANTS NEEDED FOR RESEARCH STUDY



Are you a minority parent with an asthmatic child? If so, a study is being conducted in your area to investigate whether parents' perceptions of physician cultural sensitivity affect how they follow medical recommendations for their child's asthma treatment.

Who is Eligible?

- Parents over the age of 18
- Ethnic minority families
- Parents of children who received a medical diagnosis of asthma from a health provider
- Parent who have attended (with asthmatic child) 1 or more visits with primary physician, or to urgent care, or the emergency room within the past 12 months
- Family must live in the City and County of Denver
- Parents who read and write English fluently

You will be asked to:

- Sign an informed consent form
- Participate in a face-to-face interview (approx. 1 hour), with a potential for follow-up questioning if necessary*

*Participants will receive a pre-paid $10.00 cash card as compensation immediately following the completion of the interview. This study is being conducted by Narue Wright-Jegede, a doctoral student in Public Health at Walden University. The title of the project is "Parental Perception of Physician Cultural Sensitivity and Adherence to Asthma Treatment".

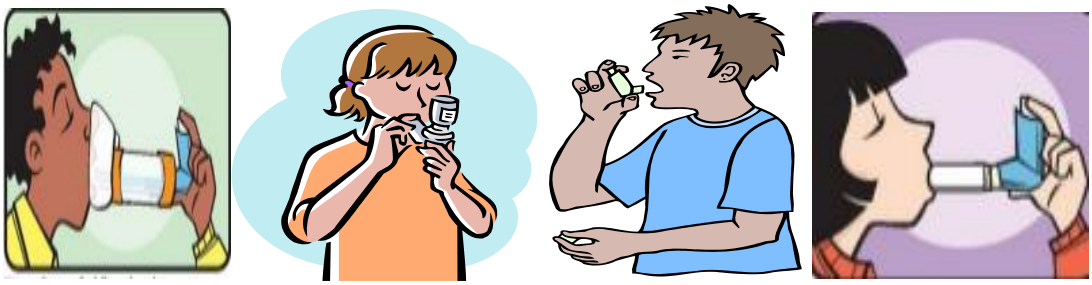
Your participant will remain strictly **CONFIDENTIAL.**

If you have any questions or are interested in participating, please contact me at [redacted] or email: [redacted]

Appendix F: Recruitment Flyer, Quantitative Survey-Questionnaires (Social Media Draft)

Initial Post with attached flyer: Are you a minority parent with an asthmatic child? If so, a study is being conducted in the City and County of Denver to investigate whether parents' perceptions of physician of physician cultural sensitivity affect how they follow medical recommendations for their child's asthma treatment.

PARTICIPANTS NEEDED FOR RESEARCH STUDY



Are you a minority parent with an asthmatic child? If so, a study is being conducted in your area to investigate whether parents' perceptions of physician cultural sensitivity affect how they follow medical recommendations for their child's asthma treatment.

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- Parents of children who received a medical diagnosis of asthma from a health provider
- Parent who have attended (with asthmatic child) 1 or more visits with primary physician, or to urgent care, or the emergency room within the past 12 months
- Family must live within the City and County of Denver
- Parents who read and write English fluently

You will be asked to:

- Provide informed consent
- Participate in an online multiple-choice survey (approx. 30 minutes)

*This study is being conducted by Narue Wright-Jegede, a doctoral student in Public Health at Walden University. The title of the project is "Parental Perception of Physician Cultural Sensitivity and Adherence to Asthma Treatment". There is no compensation for taking the demographic survey and questionnaire. However, your participation in this study will contribute to an under-researched area of perceptual viewpoints by racial-ethnic parents towards culturally-sensitive medical care and whether these pre-existing beliefs affects a parent's self-efficacy to manage their child's prescribed asthma treatment.

Your participant will remain strictly **CONFIDENTIAL.**

If you would like to participate in this study, please access this link for the survey-questionnaire at _____. If you have any questions about participating in this study, please contact the researcher, Narue Wright-Jegede at [redacted] or email [redacted]

Appendix G: Semi-structured Interview Questions (Qualitative)

1. Are you 18 years of age or older?

2. Which County is Denver Colorado do you reside in? _____

3. What is your race?

4. What is your marital status?

5. Do you speak a language other than English at home?

6. Can you tell me about the first time you learned that your child was diagnosed with asthma?

7. Could you elaborate and share a little more with me? How did that make you feel?

8. Now that I understand a little more, can you share your experience(s) with your child's physician? Can you provide an example that illustrates your response?

9. Can you tell me a time when you felt as though your child's physician made a real effort to understand the cultural differences in your ethnic-minority group? Can you provide an example that illustrates your response?

10. For the purposes of our discussion, the term "Cultural Sensitivity" is recognizing that differences and similarities exist between people without appointing value to certain cultures. It is an awareness that all people are not the same and is reflected in how different groups communicate and connect with one another. In health care, this awareness is carried over when physicians interact effectively with patients from other cultures. It is the degree to which ethnic and cultural characteristics of patients are integrated into the design, delivery, and assessment of health services. Based on your interactions with your child's physician, can you please share a time when he or she seemed knowledgeable about your family's culture? Can you provide an example that illustrates your response?

11. Tell me how you handle speaking to your child's physician about any asthma related concerns? What were you thinking and feeling? Can you provide an example that illustrates your response?

12. Could you elaborate and share a bit more about your concerns, what kinds of questions does the physician ask you and your child during the medical visit? Can you provide an example that illustrates your response?

13. For this question, please be as specific as possible. During your child's medical visit, do you feel that your questions and/or concerns are being heard? Do you feel that your child's physician is listening attentively? Can you provide an example that illustrates your response?

14. Is there anything further you wish to share?

Appendix H: Adapted Tucker Culturally Sensitive Health Care Provider Inventory,

Patient Form

Directions: Please fill out the survey using the following steps: Take a moment to think about your experiences with your child's primary care physician. Now please rate how much you agree that your child's primary care physician shows health patient-centered culturally sensitive health care or other behaviors listed below. Please use a rating of 1, 2, 3, or 4, where 1= "Strongly Disagree", 2= "Disagree", 3= "Agree", and 4= "Strongly Agree". Please mark an X in the squares below.

The physician with whom I interact most often with regarding my child's asthma:

1. Seems to rush through every appointment:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

2. Is dedicated to her or his work:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

3. Is knowledgeable about medicine:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

4. Shows appreciation for me, my child, and all of his or her other patients:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

5. Is truthful with me and my child:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

6. Lets me know how asthma commonly affects people of my race/ethnicity:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

7. Is confident in his or her abilities to engage patients of different ethnic groups about their health and healthcare:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

8. Makes a real effort to understand the cultural differences facing parents of ethnic-minority group:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

9. Understands my culture:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

10. Values diversity and is open to learning things from my point of view:

    ☐ Strongly Disagree
    ☐ Disagree
    ☐ Agree
    ☐ Strongly Agree

11. Listens attentively to me when I'm speaking to him or her during my child's medical visit:

    ☐ Strongly Disagree
    ☐ Disagree
    ☐ Agree
    ☐ Strongly Agree

12. Shows care and "real" concern for my child's wellbeing:

    ☐ Strongly Disagree
    ☐ Disagree
    ☐ Agree
    ☐ Strongly Agree

13. Does not talk down to me or my child:

    ☐ Strongly Disagree
    ☐ Disagree
    ☐ Agree
    ☐ Strongly Agree

14. Takes all my concerns seriously even if he or she does not consider them to be life-threatening:

    ☐ Strongly Disagree
    ☐ Disagree
    ☐ Agree
    ☐ Strongly Agree

15. Takes the necessary time to understand my questions and/or concerns:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

16. Makes sure that I am knowledgeable and informed about my child's condition:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

17. Seems interested in how I manage my child's treatment:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

18. Believes in working together to determine the best medical treatment for my child:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

19. Understands that my medical views of treatment may be slightly or significantly different from families:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

20. Does not question the truthfulness of what I or my child is feeling:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

21. Consciously attempts to suspend judgement about me or my child:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

22. Recommends different supportive resources to help me manage my child's illness and to cope with stressful situations:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

23. Respect my beliefs about managing my child's condition:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

24. Reassures me that the prescribed treatment is in my child's best interest:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

25. Verbally acknowledges my point of view and recognizes when treatment may not be working:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

26. Tries to understand the barriers I encounter when caring for my child:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

27. Tries to educate me and my child at every visit:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

28. Make recommendations that I find easy to comply with:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

29. Follows up on my visits:

☐ Strongly Disagree
☐ Disagree
☐ Agree
☐ Strongly Agree

Please list any additional comments or suggestions about your experience regarding the cultural sensitivity of your family's health care experience on the lines provided below:

_____

Appendix I: Modified, Panel-Reviewed Shorter Version of the Parent Demographic & Health Survey

Directions: Please fill out the survey using the following steps: Take a moment to think about your experiences with your child's primary care physician. Now please rate how much you agree that your child's primary care physician shows health patient-centered culturally sensitive health care or other behaviors listed below. Some questions will require you to answer Yes or No. To answer the other questions, please use a rating of 1, 2, 3, or 4, where 1= "Strongly Disagree", 2= "Disagree", 3= "Agree", and 4= "Strongly Agree". Please mark an X in the bubbles below.

1. Are you 18 years of age or older?
   - o Yes
   - o No

2.What is your gender?
   - o Male
   - o Female

3. Do you currently live in Denver, Colorado?
   - o Yes
   - o No

4. Are you of Hispanic, Latino, or Spanish origin. Please shade in one or more of the circles that best describes your ethnicity:
   - o No, not of Hispanic, Latino/a, or Spanish origin
   - o Yes, Mexican, Mexican American, Chicano/a
   - o Yes, Puerto Rican
   - o Yes, Cuban
   - o Yes, another Hispanic, Latino/a, or Spanish origin – Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on: _____

5.What is your race? You may mark more than one circle.
   - o White
   - o Black or African American
   - o American Indian or Alaska Native – Print race of enrolled or principal tribe: _____
   - o Asian Indian
   - o Chinese
   - o Filipino
   - o Other Asian- Print race, for example for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on: _____
   - o Japanese
   - o Korean
   - o Vietnamese
   - o Native Hawaiian
   - o Guamanian or Chamorro

- Samoan
- Other Pacific Islander – Print race, for example, Fijian, Tongan, and so on: _____

6. How are you related to the child? Are you a:
   - Parent (include biologic, step, or adoptive parent)
   - Grandparent
   - Foster parent or guardian
   - Sibling (include biologic, step, and adoptive sibling)
   - Other relative
   - Not related in any way

7. What is your marital status?
   - Never married
   - Married
   - Widowed
   - Divorced
   - Separated

8. What is your annual income from all sources:
   - Less than $20,000
   - $20,000 to $34,999
   - $35,000 to $49,999
   - $50,000 to $74,999
   - $75,000 to $100,000
   - Over $100,000

9.What is the highest degree or level of school you have completed?
   - No schooling completed
   - High school or less
   - Some college
   - Associates degree
   - Bachelor's degree
   - Master's degree
   - Professional degree beyond bachelor's degree
   - Doctorate degree

10. Is the child a boy or a girl?
   - Boy
   - Girl

11. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?
   - Yes
   - No

12. Which one or more of the following would you say is the race of your child's primary physician? Select all that apply.
    - o White
    - o Black or African American
    - o American Indian or Alaska Native
    - o Asian
    - o Asian Indian
    - o Chinese
    - o Filipino
    - o Hispanic
    - o Japanese
    - o Korean
    - o Vietnamese
    - o Other Asian
    - o Pacific Islander
    - o Native Hawaiian
    - o Guamanian or Chamorro
    - o Samoan
    - o Other Pacific Islander

13. Has a doctor, nurse or other health professional EVER said that the child has asthma?
    - o Yes
    - o No
    - o Don't Know/Not Sure

14. Does the child still have asthma?
    - o Yes
    - o No

15. How long has it been since you last talked to a doctor or other health professional about his/her asthma? This could have been in a doctor's office, the hospital, an emergency room or urgent care center.
    - o Within the past year
    - o 1 year to less than 3 years ago
    - o 3 years to 5 years ago

The physician with whom I interact most often with regarding my child's asthma:

16. Is confident in his or her abilities to engage patients of different ethnic groups about their health and healthcare:
    - o Strongly Disagree
    - o Disagree
    - o Agree
    - o Strongly Agree

The physician with whom I interact most often with regarding my child's asthma:

17. Lets me know how asthma commonly affects people of my race/ethnicity:
    - o Strongly Disagree
    - o Disagree

- Agree
- Strongly Agree

The physician with whom I interact most often with regarding my child's asthma:
18. Listens attentively to me when I'm speaking to him or her during my child's medical visit:
    - Strongly Disagree
    - Disagree
    - Agree
    - Strongly Agree

The physician with whom I interact most often with regarding my child's asthma:
19. Recommends different supportive resources to help me manage my child's illness and to cope with stressful situations:
    - Strongly Disagree
    - Disagree
    - Agree
    - Strongly Agree

The physician with whom I interact most often with regarding my child's asthma:
20. Respect my beliefs about managing my child's condition:
    - Strongly Disagree
    - Disagree
    - Agree
    - Strongly Agree

The physician with whom I interact most often with regarding my child's asthma:
21. Make recommendations that I find easy to comply with:
    - Strongly Disagree
    - Disagree
    - Agree
    - Strongly Agree

The physician with whom I interact most often with regarding my child's asthma:
22. Seems to rush through every appointment:
    - Strongly Disagree
    - Disagree
    - Agree
    - Strongly Agree

23. In general, how satisfied are you with the health care you received for you child? Would you say:
    - Very satisfied
    - Somewhat satisfied
    - Not at all satisfied

24. Do you believe that your child's primary care physician is culturally sensitive?
    - Agree
    - Disagree

25. Makes a real effort to understand the cultural differences facing parents of ethnic-minority group:
    - Strongly Disagree
    - Disagree
    - Agree
    - Strongly Agree

26. Understands that my medical views of treatment may be slightly or significantly different from families:
    - Strongly Disagree
    - Disagree
    - Agree
    - Strongly Agree

27. How long has it been since your child last took {his/her} asthma medication?
    - Within the past year
    - 1 year to less than 3 years ago
    - 3 years to 5 years ago
    - Don't' know

Appendix J: List of Peer Review Panel by Discipline

Career Titles of Peer Review Panel	Discipline
1. Senior Public Health Communicator	Master's in public health (MPH), specializing in Environmental Health
2. Program Manager, Public Health Epidemiologist	Master's in public health (MPH), specializing in Epidemiology
3. Public Health Surveillance Project Officer	Doctor of Public Health (*DrPH*), Master of Science in Public Health (MSPH)
4. Chancellor of a Charter School	Doctor of Philosophy (Ph.D.), in Education
5. Maternal and Child Health Coordinator	Master of Science in Nursing (MSN), specializing in Care Coordination