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The Impact of Cultural Competence on Patient Outcomes in The Bahamas

Erinique Denise E. Ingraham
Walden University

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Walden University

College of Management and Human Potential

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Erinique Denise E. Ingraham

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2026

Abstract

The Impact of Cultural Competence on Patient Outcomes in The Bahamas

by

Erinique Denise E. Ingraham

MA, St. George's University, 2018

BS, Lincoln University, 2015

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Industrial and Organizational Psychology

Walden University

February 2026

Abstract

In The Bahamas, the quality of care received by culturally diverse patients remains generally poor, highlighting an inability to adapt to the changing climate and adopt culturally responsive practices. The purpose of this quantitative causal-comparative study was to examine the relationship between perceived cultural competence of healthcare providers in The Bahamas and its impact on patient outcomes for the non-Bahamian patients they treat. The tripartite model of cultural competence grounded this study. The participants comprised 49 non-Bahamian patients from the public and private sectors. They completed the patient-reported physician cultural competency measure, self-efficacy for managing medications and treatments, and the generic medical interview satisfaction scale. One-way ANOVA results were significant for patient understanding, $F(2, 46) = 28.46, p < .001, \eta^2 = .553$. The results of the bivariate linear regression were significant for patient satisfaction, $R = .427, R^2 = .182, \text{adjusted } R^2 = .162, p < .005$. Cultural competence was not a significant predictor of patient adherence or treatment self-efficacy, but it was positively and significantly associated with patient understanding ($R^2 = .366, p < .001$) and patient satisfaction ($R^2 = .182, p < .005$). These findings suggest that although cultural competence may not influence behavioral or clinical outcomes, it contributes to shaping interpersonal outcomes. Understanding this relationship can help healthcare providers infuse cultural competence training into practice to enhance patient experiences and promote equity. The implications for positive social change include the potential for healthcare leaders to implement systemic approaches to integrate cultural competence in provider training and organizational structures to optimize patient care.

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Dedication

I would like to dedicate this dissertation to my family and friends. Your continued and undying love, support, care, consideration, strength, forgiveness, and patience with me have not gone unnoticed, and I could never repay you for it. I am eternally grateful to all of you.

I would especially like to thank my grandmother, Eugenia R. Thurston, who insisted that I complete my PhD in an orderly and timely manner. My mother, Rhonda M. Thurston-Ingraham, and my sister, Rontia M. Ingraham, who carried me mentally, physically, financially, and emotionally more times than I can count, and last but certainly not least, my incredible, understanding, and adoring husband, Cedric B. Moss II, who supported me and doted on me from the very beginning. I have been working on completing this program since the beginning of our relationship, and you have never wavered once. I cannot say thank you enough.

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Let's do it again next year!

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Chapter 1: Introduction to the Study

Globalization and migration have led to a significant increase in cultural diversity in patient populations around the world. This shift in population and culture necessitates a shift in understanding and training for health care providers to manage culturally diverse patients and provide culturally congruent care (Debiasi & Selleck, 2017; Rahimi et al., 2023). In The Bahamas, the quality of care received by culturally diverse patients remains generally poor, highlighting an inability to adapt to the changing climate and adopt culturally responsive practices. Health care providers who are culturally competent approach culturally diverse patients with empathy, compassion, and sensitivity (Romain, 2025). However, in The Bahamas, health care providers are more likely to overlook, ignore, argue with, or have trouble understanding non-Bahamian or culturally diverse patients. As a result, these patients are more likely to encounter cultural barriers to accessing care, including communication or language barriers, differences in cultural beliefs or values, fear of medical outcomes, financial constraints and lack of health insurance, and limited access to appropriate care from ill-equipped institutions (Romain, 2025). These barriers to health care result in inadequate treatment, poor service, and differential treatment outcomes, which can lead to significant health disparities within the population (Romain, 2025).

Although the literature suggested that patient outcomes can be improved if culturally competent health care professionals provide culturally congruent care (Arora et al., 2024; Vella et al., 2022), there were not a lot of data that supported whether cultural competence can effectively reduce health inequalities, especially in developing countries

(Kashyap & Gielen, 2022), such as The Bahamas. This chapter begins with a contextual overview of the current study, outlining the background and foundational rationale. The chapter then presents the problem statement, which outlines the issue that was investigated. The purpose of the current study is then defined, establishing a link between the identified problem, the research questions, and the guiding hypotheses. Subsequently, the chapter outlines the theoretical framework and the nature of the current study, along with key definitions, assumptions, scope, and delimitations. The chapter also addresses potential limitations of the current study from a practical and methodological perspective and discusses the significance and potential contributions of the research to effect social change.

Background

As populations grow increasingly diverse, health care professionals must develop specific skills to deliver culturally appropriate care to their patients, promoting health equity and fostering a culturally competent and safe health care system (Debiasi & Selleck, 2017; Curtis et al., 2025). Regardless of a person's reason for temporarily or permanently moving across international borders, it is necessary to consider their specific health care requirements within the health care system (Arora et al., 2024). With increasing global migration, it is essential that health care institutions and organizations are prepared to deliver respectful, culturally sensitive, and linguistically appropriate care to diverse patient populations (Vella et al., 2022). Research has shown that cultural competence enhances communication between providers and patients, fosters respect for different cultural backgrounds, supports self-awareness, and facilitates collaborative

decision making in clinical encounters (McCann et al., 2023). When cultural factors are not considered in health care, interactions between patients and professionals are less patient centered, shorter, and less positive (Pedrero et al., 2020). Therefore, ensuring patient safety and providing culturally competent patient-centered care should be a top priority for all health care systems (Fung et al., 2023).

Cultural factors play a critical role in shaping patients' daily lives, health-related behaviors, engagement with health care services, and beliefs about illness (Fung et al., 2023). However, people belonging to ethnic, racial, and cultural minorities have regularly been shown to have less access to health care, lower reported health literacy levels, lower socioeconomic status, feelings of disempowerment and distrust within the health care system, and poorer health outcomes when compared to the majority population (Kashyap & Gielen, 2022; McCann et al., 2023). A lack of effective cross-cultural communication and understanding may also affect the quality of health care, access to health care, and patient engagement with care, leading to increased unmet health care needs that perpetuate existing disparities in health outcomes (Kashyap & Gielen, 2022; Vella et al., 2022).

Health care providers working with ethnic minority patients may encounter a variety of challenges, including language barriers, misunderstandings about illness and treatment, varying levels of health literacy, and unfamiliarity with the health care system in a new country (Vella et al., 2022). These challenges can be further exacerbated by a health care provider's unconscious biases and stereotyping.

Recent research suggested that one approach to addressing these health inequalities could be the education and training of health care professionals in cultural competency (McCann et al., 2023). Cultural competence suggests that reducing health disparities requires tailoring health care delivery to better reflect and align with the cultural values, beliefs, and contexts of diverse patient populations (Lucas et al., 2008). Correspondingly, cultural competence is increasingly gaining attention in the health care profession (Fung et al., 2023). Medical researchers and health care professionals have become increasingly aware that a provider's understanding of culture is a critical factor in racial and ethnic minority health care (Lucas et al., 2008), highlighting that delivering patient-centered care to diverse populations requires cultural competence (Vella et al., 2022).

Gap in the Literature

Although cultural competency theory has garnered considerable interest throughout the years, empirical support has not been forthcoming. Researchers have been slow not only to investigate the underlying factors that inform cultural competency judgments but also to demonstrate that they predict meaningful health outcomes (Lucas et al., 2008). Vella et al. (2022) conducted a systematic review of the literature to determine whether cultural competency training for health care providers can improve patient outcomes in culturally diverse populations. In this review, Vella et al. identified a significant gap in the literature, noting that overall, there is limited evidence supporting the positive effects of cultural competency training. Additionally, the quality of the existing literature has varied, as many studies lacked an appropriate theoretical

framework and rigorous evaluation, making it difficult to determine whether cultural competency training for health care providers can improve patient outcomes. The issue is not that there are many negative findings, but rather that the relationship has not been studied elaborately (Kashyap & Gielen, 2021). Consequently, researchers need to conduct more rigorous research to better understand the impact of cultural competence on improving outcomes and reducing disparities.

Problem Statement

The research problem addressed in this study was the need to determine whether perceived cultural competence (PCC) with health care providers impacts patient outcomes for culturally diverse patients in The Bahamas.

Purpose of the Study

The purpose of this quantitative study was to determine the relationship between the PCC of health care providers and the patient outcomes of non-Bahamian patients in The Bahamas. The independent variable was the PCC of health care providers, as reported by the patients with whom they interacted. The dependent variable was patient outcomes, which consisted of four interrelated variables, including patient understanding, patient treatment self-efficacy, patient adherence to medication, and patient satisfaction.

Research Questions and Hypotheses

RQ1: Does patient understanding differ across levels of PCC?

H_0 1: Patient understanding does not increase with higher levels of PCC.

H_a 1: Patient understanding increases with higher levels of PCC.

RQ2: Does treatment self-efficacy differ across levels of PCC?

H₀2: Treatment self-efficacy does not increase with higher levels of PCC.

H_a2: Treatment self-efficacy increases with higher levels of PCC.

RQ3: Does adherence to medication differ across levels of PCC?

H₀3: Adherence to medication does not increase with higher levels of PCC.

H_a3: Adherence to medication increases at higher levels of PCC.

RQ4: Does patient satisfaction differ across levels of PCC?

H₀4: Patient satisfaction does not increase with higher levels of PCC.

H_a4: Patient satisfaction increases with higher levels of PCC.

RQ5: Does perceived cultural History-Taking by health care providers predict patients' understanding of their diagnoses/conditions?

H₀5: Perceived cultural History-Taking by health care providers does not predict patients' understanding of their diagnosis/conditions.

H_a5: Perceived cultural History-Taking by health care providers positively predicts greater patient understanding of their diagnosis/conditions.

RQ6: Does PCC in health care providers predict patients' treatment self-efficacy?

H₀6: PCC in health care providers does not predict patients' treatment self-efficacy.

H_a6: Higher PCC in health care providers is positively associated with greater levels of self-efficacy in managing their treatment and condition.

RQ7: Does PCC in health care providers predict patients' adherence to treatment plans and medication?

H₀7: PCC in health care providers does not positively predict patients' adherence to their treatment plans and medication.

H_a7: Higher PCC in health care providers is positively associated with greater adherence to medication and compliance with the intervention plan.

RQ8: Does PCC in health care providers predict patient satisfaction?

H₀8: PCC in health care providers does not positively predict patients' satisfaction with their overall health care experience.

H_a8: Higher PCC in health care providers is positively associated with greater levels of satisfaction with their overall health care experience.

Theoretical Foundation

The theoretical foundation of this study is anchored in the tripartite model of cultural competency, based on the cross-cultural counselling competencies, initially presented by Sue and colleagues (1982; 1992 as cited by Chu et al., 2022), which focuses on multidimensional aspects of cultural competency, including cultural attitudes, cultural knowledge, and cultural skills.

First, cultural attitudes refer to the provider's awareness of their own cultural identity, including personal norms, values, and biases, and the recognition of how these internal frameworks may shape perceptions and influence interactions with individuals from different cultural backgrounds. This self-awareness is foundational, as it prompts providers to critically reflect on their assumptions and approach each patient encounter with humility and openness. Next, cultural knowledge involves acquiring a deep understanding of the cultural histories, worldviews, belief systems, and lived experiences

of the populations served. This includes recognizing how cultural factors intersect with health behaviors, communication styles, and expectations of care. Providers who foster cultural knowledge are better positioned to interpret patient needs accurately and avoid miscommunication or misdiagnosis rooted in cultural misunderstanding. Finally, cultural skills encompass the practical application of culturally responsive strategies in clinical settings. This includes adapting communication techniques, modifying interventions to align with cultural values, and demonstrating respect for cultural preferences in treatment planning and decision making. Together, these three competencies provide a comprehensive framework for understanding how health care providers can effectively engage with culturally diverse populations.

This model emphasizes that cultural competence is not stagnant; rather, it is dynamic, fluid, and evolving. It is not a fixed endpoint or goal but a continuum along which providers may improve or regress depending on context, exposure, and intentionality over time, indicating a continuous need to develop and promote provider cultural competence through experience, education, and feedback (Chu et al., 2022). This perspective aligns with the broader goals of this study, which seeks to determine how cultural competence can be meaningfully implemented and operationalized within health care systems to continuously improve patient outcomes and promote equity.

Nature of the Study

To address the research questions in this quantitative study, a causal-comparative approach was selected to explore the potential relationship between the PCC of health care providers and patient outcomes without manipulating either variable (Schenker &

Rumrill, 2004). The independent variable was PCC, with health care providers assigned to one of three groups: low, moderate, or high PCC. The dependent variables in this study were the reported patient outcomes, with a focus on patient understanding, treatment self-efficacy, medication adherence, and satisfaction.

Regarding the methodology, the target population included adults living in The Bahamas who do not identify as Bahamian as their nationality and who have visited a health care facility within the last year. Data were primarily collected through a secure online survey distributed via social media platforms. This specific research design used Analysis of Variance (ANOVA) and bivariate linear regression models to determine and predict the relationship with each outcome.

Definitions

Cultural competence: Although there is no standard definition of cultural competence (McCann et al., 2023), Fung (2023) notes that the concept consists of attitudes, knowledge, and skills for delivering high-quality, culturally appropriate care to diverse populations. A definition that fits perfectly with the three competencies of the tripartite model of cultural competence used in the theoretical framework of this study. In the context of health care, Pedrero et al. (2020) note that cultural competence requires a health care provider to continuously reflect on and question how the culture of the professional and the patient impacts their interactions within the health system. In this study, the cultural competence of health care providers is viewed from the patient's perspective. It is operationalized as health care providers being externally observed by

their patients on their ability to meet the three components of the tripartite model of cultural competence, namely cultural awareness, cultural knowledge, and cultural skills.

Nationality: Miller (1997) argues that the nationality of an individual goes beyond their legal status but instead operates as a form of identity that connects people by a shared history, culture, and social obligations that promote social justice and democracy without being exclusionary. Similarly, Pap (2021) avers that nationality is operationalized through law, where nationality becomes a tool for categorizing populations to define who belongs, who is excluded, and how identity is recognized or contested. However, it should not be considered purely legal as nationality intersects closely with concepts of race, ethnicity, and social standing. International law defines nationality as a status created by a legal bond between an individual and a state, typically by birth, descent, or naturalization, that determines the rights and duties of individuals. It is different from citizenship, though the terms are often used interchangeably, as they have distinct legal implications (Dörr, 2019). Given that this study is situated within the Bahamian context, it is important to note that Bahamian nationality is generally acquired through one of several legal principles. First, “jus soli” grants nationality to individuals born within The Bahamas. Second is “jus sanguinis”, whereby nationality is given to individuals born abroad to a father who holds Bahamian citizenship. Additionally, nationality may be granted through naturalization to permanent residents who have resided in The Bahamas for a specified period, or to individuals with demonstrable affiliation to the country (Belton, 2020). Therefore, for the purpose of this study, a non-Bahamian by nationality

was operationalized as anyone in The Bahamas who was not granted nationality by birth, was not born to a Bahamian father with Bahamian nationality, or was not naturalized.

Health care Providers: The World Health Organization (2019) makes a definitive distinction between health care workers and health care providers. Health care workers are all individuals employed in health care environments who may interact with patients, but not all are authorized to deliver medical care. By contrast, health care providers are legally recognized professionals who deliver health care services and are typically licensed to practice medicine or an allied health discipline. All health care providers are health care workers, but not all health care workers are providers. This clarification of terms is necessary, as this study focused solely on understanding the PCC of individuals who provide direct patient care, i.e., health care providers (HCPs).

Scope and Delimitations

Issues of Internal Validity

Within this study, several potential confounding variables could have interfered with a full and accurate understanding of the relationship between PCC, patient demographics, and provider-level patient outcomes. This study did not require the health care provider to be an active participant; rather, their behaviors were observed and reported by their culturally diverse patients. Thus, leaving some variables unaccounted for. For example, a possible confounding variable at the provider level is years of clinical experience, as more experienced providers may communicate better with patients, regardless of their perceived level of cultural competence. Additionally, health care providers with a history of working with culturally diverse populations may demonstrate

culturally competent behaviors that stem from exposure rather than training. This possible confounding variable was mitigated through methodological considerations. Using patient-reported measures did not allow for ascertaining the two confounding variables (years of clinical experience and history of working with culturally diverse populations), which could have been obtained from self-reported measures by health care providers. Future studies should focus on combining patient-reported measures with provider-reported responses.

Issues of External Validity

When considering external validity, a limited scope can reduce the generalizability of findings. In this case, if the sample was drawn from a single hospital or region, it may not represent national diversity. There is only one public hospital on the island of New Providence, which is the capital. To mitigate this potential error, participants were recruited from all public health hospitals and clinics in The Bahamas. Additionally, private health institutions were also included to ensure the sample was diverse.

Included and Excluded Populations

The target population consisted of adults over the age of 18 who are non-Bahamian, as defined above. Also included in this category are individuals who have dual citizenship, where they are Bahamian by nationality but also hold the passport of another country, or if they are Bahamian but were born to one or both parents of another nationality. Participants who were not recruited or included are those who are Bahamian by nationality, i.e., were born in The Bahamas to Bahamian parents, received their

Bahamian nationality from their Bahamian father, or who have been naturalized and hold a Bahamian passport.

Included and Excluded Theories

There is no consensus on the definition of cultural competency, making it difficult to evaluate because there is no definitive perspective on which to base the theoretical framework (Chae et al., 2018; McCann et al., 2023; Vella et al., 2022). Vella et al. (2002) emphasize that if researchers continue to diverge in theoretical frameworks, skill-based methodologies, and approaches to evaluating training effectiveness, it will hinder the development of feasible and generalizable procedures, strategies, and guidelines for assessing the impact of cultural competence on patient outcomes and potential improvements. Nonetheless, although no theory has been identified as the most appropriate, this study chose the tripartite model, which is the theoretical framework most widely used and accepted in the literature for similar studies of cultural competency in health care.

Potential Generalizability

A potential issue of generalizability may be the geographic and cultural specificity of this study, its participants, and its context. The Bahamas has a unique sociocultural context shaped by Caribbean heritage, migration patterns, and colonial history that may not be applicable in other health care settings, such as in the United States of America. However, the landscape is extremely similar to that of most other small island development states throughout the diaspora, and it can be extended and applied, especially to the English-speaking Caribbean. Furthermore, it has considerable

replication potential, as it can be adapted and translated to guide research across the French-, Dutch-, and Spanish-speaking Caribbean, while preserving the current study's core principles. The goal of this study is to establish a reliable and valid framework that maintains its reliability and validity when applied to diverse Caribbean populations, making it a viable solution to social ills across the diaspora.

Limitations

Although this study has been designed with careful planning and consideration, acknowledging its inevitable limitations is necessary to understand its scope, contextualize the results, and guide future research. As with all empirical research, several limitations were identified. First, a practical limitation of this study is that it used a causal-comparative design, which, while the most appropriate choice, does not definitively establish a cause-and-effect relationship. Given the target population's potential vulnerability, direct manipulation may be both unethical and impractical. Therefore, the causal-comparative design is the most viable alternative, as it reflects the complexity of health care environments, where variables such as cultural competence, patient outcomes, and systemic barriers are interrelated and not easily isolated. However, it can identify patterns and associations that suggest a causal relationship. These findings can then inform the development of more experimental or longitudinal research designs that can offer more accurate and helpful information.

A second limitation of this study is the possibility of Social Desirability Bias (SDB). Krosnick (1999) notes that SDB is a well-known survey research response bias that occurs when a respondent seeks to highlight their positive qualities and diminish

their negative ones (Furr, 2011). As such, they would choose socially desirable answers instead of responses that truly represent how they feel (Grimm, 2010), by overreporting qualities that they think will make them more likable and underreporting those they believe will make them seem unlikable (Krosnick, 1999). It does not matter whether respondents are intentionally misleading, as SDB threatens validity, whether intentional or not (Furr, 2011). Self-report measures are particularly prone to SDB yet are also the most commonly used tools for assessing cultural competence (Chu et al., 2022). Therefore, to mitigate SDB, this study focuses on the patient's perspective and how they perceive their health care provider's provision of culturally congruent care. To further mitigate SDB bias, Grimm (2010) and Krosnick (1999) recommend explicitly identifying questions vulnerable to SDB and urging participants to consider their responses carefully. This action is enough to improve accuracy and mitigate measurement errors.

Significance

Contributions to the Literature

This study aimed to address a critical gap in the literature, which currently neglects to determine the impact of provider cultural competence on patient health outcomes. By examining this potential relationship, this study builds upon existing research in health care and cultural competence. Although the literature provides extensive research supporting the need for cultural competency among health care providers, there is a lack of data focused on how it impacts patient outcomes. As such, this study filled that gap in the literature, providing insights into how health care provider

behaviors can impact patient outcomes while contributing to the global body of evidence. Additionally, the current study provided evidence supporting the tripartite model of cultural competence as the most suitable theoretical framework for exploring cultural competence in health care.

Contributions to The Bahamas

This study is significant because the knowledge gained can help the public understand the level of PCC among health care providers in The Bahamas and inform the development of training protocols to improve cultural competence and patient-centered care. This, in turn, fosters respectful, individualized care that aligns with patients' values, beliefs, and preferences. It would also provide evidence that cultural competence enhances provider-patient relationships, leading to improved treatment adherence, satisfaction, and long-term health outcomes, ultimately decreasing health disparities and enhancing public health.

Another significant contribution this study can make is to inform policy and influence systemic change. It can guide the Ministry of Health and hospital administrators in scaling effective training programs. It also supports integrating cultural competence into national health strategies, accreditation standards, and quality improvement initiatives. Additionally, the evidence found can be used to improve tertiary education at The University of The Bahamas, as it supports empirical research that encourages the adaptation and advancement of its medical and nursing curricula to implement culturally relevant education and training.

Contributions to the Region

This study also has the potential to address the health disparities in a multicultural context. Currently, there is no data available on this topic from The Bahamas or the Caribbean region as a whole. This study can serve as a blueprint for the entire Caribbean to consider how we address multiculturalism in health care throughout the region. Other small island developing states (SIDS) in the Caribbean that may face similar public health challenges can use this context-specific perspective to support the evidence that higher levels of PCC in multicultural settings can improve patient health outcomes for ethnic minority groups, and to advocate for scrutiny of how we address migrant populations throughout the region.

Summary

Society's rapid growth towards globalization, diversity, and multiculturalism is inevitable, yet there is a disconnect between the existing and the new cultures that migrate. As such, to improve the interactions between providers and patients and to mitigate health disparities, culturally competent care through training is crucial for health care providers to establish culturally safe environments that support equitable care delivery (Rost et al., 2023). Moreover, to meet the evolving needs of increasingly diverse populations, health care organizations must implement ethnically responsive strategies that facilitate the continuous development of programs and practices aligned with the cultural backgrounds, expectations, and integration processes of emerging social groups. Failure to account for cultural factors can significantly diminish the effectiveness of clinical practice (Hajighasemi, 2023).

Consequently, this study sought to investigate how cultural competence influences patient outcomes in a multicultural setting. The purpose of this study was to evaluate the relationship between the PCC of health care providers in The Bahamas and the health outcomes of the non-Bahamian patients they treat. Using a causal-comparative design, this study used ANOVA and bivariate linear regression models to analyze the survey data collected. The results from this study have the potential to build on the existing literature, provide a rubric for similar SIDS to follow in their own contexts, improve patient care and patient outcomes, and reduce health disparities for culturally diverse patients by informing and encouraging treatment, policy, training, and education reform in The Bahamas.

Fung (2023) argued that the cultural competence of health care professionals is a critical determinant of patient outcomes. As such, prioritizing ethnic minority health enhances care quality while contributing to reducing health care expenditures and addressing systemic public health disparities (Fung, 2023; Lucas et al., 2008).

Chapter 2: Literature Review

Despite the importance of providing culturally congruent care, health care providers in The Bahamas are more likely to overlook, ignore, argue with, or have trouble understanding culturally diverse patients. As a result, these patients are more likely to encounter cultural barriers to accessing care, leading to poor patient outcomes and significant health disparities in the population (Romain, 2025). Generally, the literature suggested that patient outcomes can be improved if culturally competent health care professionals provide culturally congruent patient care (Arora et al., 2024; Vella et al., 2022). However, Vella et al. (2022) conducted a systematic review of the literature and determined that, overall, there is limited evidence supporting the positive effects of cultural competence on patient outcomes. Moreover, the quality of the existing literature varied greatly as many of the studies lacked an appropriate theoretical focus and rigorous evaluation, making it difficult to determine whether cultural competency training for health care providers can improve patient outcomes and reduce health inequalities, especially in developing countries (Kashyap & Gielen, 2021), such as The Bahamas.

Consequently, researchers needed to conduct more rigorous research to determine the impact of cultural competency training on improving outcomes and reducing disparities. Without empirical research to determine the extent of cultural competency in health care, The Bahamas and similar SIDS in the Caribbean risk alienating major factions of their population, hindering the overall public health of the country. The current study aimed to determine whether PCC in health care providers can improve health outcomes for culturally diverse patients. The purpose of this quantitative study was

to investigate the impact of the PCC of health care providers on patient outcomes in The Bahamas. By examining these differences, this study aimed to highlight the effectiveness of cultural competence in strengthening provider–patient interactions, improving culturally congruent patient care, and promoting equitable health care delivery. This chapter identifies an appropriate theoretical framework to ground the current study and build upon previously published work, defines the relevant constructs of interest, addresses the strengths and weakness related to cultural competence training in health care, identifies and discusses the chosen variables, and outlines how this study filled in the gap in the literature pertaining to examining the link between cultural competence and patient outcomes.

Literature Search Strategy

To collect the relevant articles for this study, I used the Walden Library to access several databases, including APA PsycArticles, APA PsycBooks, APA PsycInfo, APA PsycExtra, ScienceDirect, CINAHL Plus, and Complementary Index. The search was limited to full-text, peer-reviewed scholarly journals published within the last 5 years (2020–2025). The search terms included *cultural competency AND health care* (5,202), *cultural competency in health care* (1,654), *cultural competence AND diversity* (4,168), *cultural competence AND competencies* (4,706), *cultural competence AND health inequalities* (897), *cultural competence AND assessment tools* (273), *cultural sensitivity training AND health care OR health care OR hospital OR health services OR health facilities* (126), *competency training in health care AND patient outcomes* (11), *cultural competence OR cultural awareness OR cultural competency OR cultural sensitivity AND*

human service organizations (9), *cultural competence AND patient survival* (5), and *cultural competence AND patient readmission* (2).

To further narrow the search, I added filters by subject to the search terms. The subjects included cultural competence (34), health inequalities (32), health disparities (24), health care disparities (11), and health care services accessibility (9). A final search across the same databases targeted full-text materials in English or with an English translation. Specifically, the search terms combined cultural competence in health care AND patient outcomes (19). Existing systematic reviews (Chu et al., 2022; Vella et al., 2022), reference lists, and additional, smaller searches were also used to explore potential articles.

Theoretical Foundation

Origins of the Tripartite Model of Cultural Competency

While cultural competence is generally agreed upon, recognized, and accepted as an important psychological construct, there is still some ambiguity in identifying a definitive definition (Hajighasemi, 2023). Nevertheless, Chu et al. (2022) identify the tripartite model of cultural competency (TMCC) as “one of the most widely used frameworks of provider-level cultural competence”.

In 1992, Sue, Arredondo, and McDavis introduced research to define and operationalize the Cross-Cultural Counselling Competencies. Although their original work focused on improving providers’ cultural competency in mental health settings, it established the foundation for the TMCC, as it is closely aligned with its multidimensional framework, which is also applicable to patient-provider dyads (Lucas et

al., 2008). The TMCC emphasizes cultural attitudes, knowledge, and skills within the medical care context, providing a theoretically grounded, standardized method for measuring provider cultural competency (Chu et al., 2022; Lucas et al., 2008).

Major Theoretical Propositions

The TMCC highlights the importance of integrating cultural attitudes, knowledge, and skills into health care provision while recognizing how the three components interact with each other. The first component, cultural attitudes, involves the provider being aware of and sensitive to their cultural background, norms, values, and biases, and how these attributes can influence or impact perceptions of and interactions with patients or clients from different cultural backgrounds (Chu et al., 2022). Sue and Sue (2013) emphasize the importance and relevance of self-examination when considering the dynamics of patient-provider relationships when working with culturally diverse individuals. The second component, cultural knowledge, emphasizes the provider's ability to understand their patients' or clients' cultural backgrounds, worldviews, and experiences. This understanding is developed through cognitive rather than affective empathy and highlights how these cultural systems shape interactions and influence treatment approaches (Chu et al., 2022; Sue & Sue, 2013). Sue and Sue (2013) note that a lack of cultural knowledge can lead a provider to depend on stereotypes, generalizations, and assumptions about cultural groups, which increases the likelihood of treatment error and misguided decision making. The third component, cultural skills, encompasses using culturally appropriate and sensitive strategies when managing people to enhance their experience (Chu et al., 2022). It is important to note that cultural skills are needed to

develop culturally appropriate interventions, which depend on acquiring and utilizing cultural awareness and knowledge (Sue & Sue, 2013). These three components together strengthen a provider's capacity to deliver ethical and effective services.

Boundaries and Limitations of the Tripartite Model of Cultural Competency

Despite the popularity of the TMCC, the model has received some criticism throughout the literature. Beagan (2018) noted that the model overemphasizes the importance of individual competency in terms of personal awareness, knowledge, and skills. In doing so, it may neglect broader, systemic issues that influence cross-cultural interactions, including institutional policies, historical inequities, and structural power imbalances. Additionally, Beagan (2018) and Chu et al. (2022) argue that training programs that use the TMCC oversimplify culture by focusing solely on race/ethnicity as the only cultural identifier. The conceptualization of cultural diversity can be broadened by focusing on a range of cultural identities, including gender identity, sexual orientation, socioeconomic status/ class, religion, ability status, immigration status, and intersectionality. A third limitation of the TMCC is that cultural competence implies that cultural knowledge can be mastered with no need for extended understanding or growth. Instead, Foronda (2020) suggested cultural humility, highlighting the need for a commitment to learning, self-reflection, self-evaluation, and self-critique. However, Chu et al. (2022) countered this argument by noting that the tripartite model emphasizes that cultural competency is not static; rather, it is fluid and can improve or regress over time, underscoring the continuous need to develop and promote provider cultural competence.

Although the TMCC has limitations, it remains an appropriate and valuable framework due to its strong conceptualization and practical utility (Chu et al., 2022). It is even more effective when used in tandem with systemic approaches to cultural competence, such as policy changes, community engagement, continuous employee training, and consistent evaluation (Delphin-Rittmon et al., 2012; McCalman et al., 2017; Shepherd et al., 2019).

Applications of the Tripartite Model of Cultural Competence in Health Care

The TMCC has been routinely applied to inform the curriculum and assessment of student and practitioner cultural competence across health care professions, with evidence supporting the notion that cultural competence training improves health care providers' knowledge, attitudes, and skills (Chu et al., 2022). Moreover, Blacker and Santin (2024) used the TMCC to inform culturally sensitive treatment plans, leading providers to adjust their approach to treatment based on their patients' cultural beliefs. Other applications of the TMCC in health care include the Association of Schools and Colleges of Optometry (ASCO) publishing several case studies that described how cultural competency informed patient-based interactions and care. The information from these case studies was then used to improve the ASCO Guidelines for Culturally Competent Eye and Vision Care (The Association of Schools and Colleges of Optometry, 2021). The association also recommended that the case studies be used by faculty and institutions to inform curriculum and promote cultural competence in a clinical setting.

Rationale for This Choice of Theory

Chu et al. (2022) posited that Cross-Cultural Counselling Competencies are commonly incorporated into training programs to equip mental health professionals with the skills to support clients from diverse cultural backgrounds. Similarly, within a health care setting, the application of the TMCC involves integrating awareness, knowledge, and skills to deliver culturally responsive care, enhance provider-patient interactions, reduce health disparities, and ultimately improve patient outcomes.

However, traditional methods of assessing cultural competence have predominantly relied on providers' self-assessments, which can lead to incomplete or inaccurate reports of their true capabilities. Lucas et al. (2008) argue that this method may fail to accurately capture the scope of patient health. However, using the TMCC to assess patients' perceptions of their health care providers' cultural competence may provide a more robust and accurate depiction of reality. In this way, using patient-reported measures of providers' understanding of cultural characteristics, their awareness of cultural differences, and their skill in incorporating cultural factors into care can provide a clearer view of actual cultural competence.

Applying the TMCC framework to this study builds on this foundation to determine how cultural competence among health care providers influences patient outcomes. The underlying premise is that if patients perceive their providers as demonstrating high levels of cultural competence, through positive cultural attitudes, comprehensive knowledge, and effective communication skills, patients are likely to report a better understanding of their conditions, greater treatment self-efficacy, improved

adherence to medication, and a higher level of care satisfaction. Therefore, this framework offers a valuable perspective for evaluating how integrating the tripartite model into training programs can ultimately impact patient outcomes.

Relevance to the Present Study

In 1992, Sue et al. (see Sue & Sue, 2013) developed the TMCC as the United States rapidly became more diverse. Their research indicated that immigrants now accounted for 12% of the US population, leading to a more multiracial, multicultural, and multilingual society (Sue & Sue, 2013). To effectively address the needs of an evolving society, it is posited that health care providers must adopt a new framework to guide culturally sensitive, effective interventions and treatment.

Similarly, the Caribbean is also becoming more integrated. The development of the Caribbean Community and Common Market (CARICOM) initiative, which promotes economic integration and cooperation among its member states, has made the migration of culturally diverse people throughout the diaspora more apparent. For example, in The Bahamas, approximately 25% of the population identifies as Haitian or speaks Haitian Creole (Chepkemoui, 2017). With such pronounced shifts toward a multiracial, multicultural, and multilingual society, the tripartite model offers a valuable framework for assessing and enhancing health care providers' ability to provide culturally congruent care and meet their needs.

Key Variables and Concepts

Constructs of Interest: Culture and Cultural Competency

The term “culture” generally refers to common group identities, including language, communication styles, behaviors, customs, beliefs, traditions, values, and institutions, all of which evolve over time and across individuals or communities (Curtis et al., 2025). It should be noted that culture cannot be limited in understanding to just race and ethnicity, but must also encompass the sociocultural experiences and identities of people of different gender identities, socioeconomic statuses/ social classes, religious and spiritual beliefs, sexual orientations, ages, physical and mental abilities, immigration status, and intersectionality (Beagan, 2018; Chu et al., 2022; Hajighasemi, 2023).

However, while culture has a standardized definition, the term “cultural competence” does not. Cultural competence is widely acknowledged as a core construct within professional psychology (Chu et al., 2022; Hajighasemi, 2023). However, there remains no consensus among or within nations on how it should be defined, conceptualized, taught, assessed, or practiced (Curtis et al., 2025). As a result, there is no universally accepted definition of cultural competency. Nevertheless, it is consistently described in the literature as a dynamic, developmental process grounded in an individual’s attitudes, knowledge, and skills. Thus, acquiring cultural competence is inherently iterative and cyclical, while being both reflective and forward-thinking (Pedrero et al., 2020).

Consequently, despite varied definitions, cultural competence is commonly understood as a multidimensional construct that involves sensitivity, knowledge, and

skills. Additionally, in the health care setting, it is a multilevel process that engages both individual health care professionals and broader health systems (Pedrero et al., 2020). In essence, competence must be understood as the capacity of a person, organization, or system to interact, act, and assess situations with self-awareness, knowledge, and an understanding of multiple cultures (Kashyap & Gielen, 2022). Therefore, to achieve high-quality health care, individual providers and organizations must consider the diverse experiences, lifestyles, and perspectives of patients, engaging in collaborative, culturally informed decision making (Stubbe, 2020). Moreover, effective and equitable care must be delivered in ways that are respectful, understandable, and responsive to patients' cultural values, health beliefs, language preferences, literacy levels, and communication needs (Stubbe, 2020).

As such, Curtis et al. (2025) proposed an appropriate working definition for this study, stating: "Cultural competency refers to a set of knowledge about culture(s), along with the associated skills and behaviors that health professionals require, to deliver high-quality health care and achieve equitable health outcomes for all groups."

It is well-documented in the literature that the inability to consider cultural factors in health care can lead to patient-provider interactions that are shorter, less effective, and lacking in patient-centeredness, which can contribute to health disparities. Therefore, to better serve culturally diverse and underserved populations, health care professionals must receive ongoing, lifelong training in cultural competence (Chu et al., 2022; Stubbe, 2020). Moreover, organizations must adopt culturally sensitive strategies that continually adapt programs and methodologies to meet the evolving needs, values, and integration

experiences of emerging social groups (Hajighasemi, 2023). It is imperative to integrate cultural competence at all levels of health care to create a health care system that is equitable to diverse populations, leading to increased patient satisfaction, improved follow-up attendance, and improved patient compliance with their medication (Kashyap & Gielen, 2022).

Provider Cultural Competence Within the Literature

Researchers have approached the assessment and measurement of cultural competency in health care in various ways within the literature. Chu et al. (2022) conducted a systematic review between 1984 and 2019 to explore the features, methods, and outcomes of cultural competence assessment initiatives. Within that review, Chu et al. (2022) synthesized and documented the available training curricula outlines, in which they found that cultural competence assessments heavily relied on self-assessments (73.0%), along with qualitative or open-ended responses, pre- and post-test exams, and client-report measures.

Self-Report and Self-Assessments

Traditionally, self-report measures have been widely used in the literature to assess cultural competency. Some scholars argued that the main strength of using providers' self-assessments is that the tools are valid and reliable, producing results that are effective and generalizable. For example, the EMCC-14 was developed and validated by Pedrero et al. (2020) to measure the level of cultural competence of health care workers in Santiago de Chile. The results of this validation study indicated that the tool was effective and generalizable across contexts within a Chilean setting, and offered

several interventions that can be used in the health care sector to strengthen providers' cultural competence (Pedrero et al., 2020). However, Lucas et al. (2008) argued that self-assessments can lead to an incomplete or inaccurate report of the provider's true abilities and performance, thereby failing to accurately capture the scope of patient health. Additionally, confounding variables, such as social desirability bias, an intentional or unintentional response bias that causes people to answer assessment questions in a way that represents them more favorably rather than honestly, can threaten validity and may affect outcomes (Furr, 2011). This is especially true when students, professionals, or providers are aware that cultural competence is being measured (Fung et al., 2023).

Hajighasemi (2023) presented a similar framework in their study and notes that many existing models primarily emphasize the cultural competence of health care providers working with culturally diverse patients. These models were typically aimed at either assessing the provider's academic understanding of the social, psychological, or pharmacological issues relevant to a specific cultural group or evaluating the cultural competence of experienced providers relative to those with no prior experience working with certain cultural populations. While there is strength in this approach, Sue (2001, as cited by Hajighasemi, 2023) noted the need for a more comprehensive framework that not only considers the provider's cultural competency but also assesses patient perspectives on provider cultural competence and the organization's overall diversity climate. Self-reported measures were considered helpful for capturing provider perspectives and for identifying patient perspectives and perceived experiences.

Fung et al. (2023) approached measuring and assessing cultural competency very differently from much of the literature and instead implemented a crossover design. The study focused on the impact of virtual simulation and problem-based learning (PBL) on nursing students' perceived clinical and cultural competence. Using a randomized controlled crossover design, students experienced both learning modalities, in which students would be introduced to the virtual simulation first, followed by the PBL or vice versa. The results from this study showed that both the virtual simulation and PBL significantly improved students' clinical skills, professional behaviors, and cultural competencies, with no notable difference between the two groups. However, introducing the virtual simulation before PBL appeared to boost initial engagement and learning efficacy. There were two important limitations to this study. First, some may see a crossover study design as a weakness, as the effect of the first intervention may not be washed out when crossing over. Second, the researchers used self-report measures and noted that the results might be subject to social desirability bias, as students were aware that cultural competence was being measured. Nevertheless, the study still provided support for the notion that integrating both strategies offers a flexible and effective way to enhance nursing education and support students' readiness for culturally competent care in diverse clinical settings.

Qualitative or Open-Ended Assessments

Chae et al. (2018) noted a lack of qualitative research aimed at understanding the experience and cultural competence training needs of Korean public health workers providing care to the migrant population in Korea. As such, the authors conducted an

exploratory qualitative study to understand the experiences and needs of Korean public health workers. Chae et al. conducted five focus group interviews with 26 public health workers from five public health centers in Gwangju City, South Korea. The results from this study indicated that Korean public health workers experienced numerous challenges in communicating with migrant patients and establishing rapport. The workers attributed these difficulties to a lack of preparedness to provide culturally competent care and to an inability to understand their vulnerabilities. This article asserted that public health workers lacked the cultural competence training to effectively treat their migrant population. Not only was it more difficult to communicate and establish trust, but it was also significantly more challenging to contact the patients and easier to overlook them. Additionally, many of the migrant patients defaulted on their treatment continuation in the health care programs more often than native patients. This is an example of how a lack of cultural competence can create a skills deficit among employees while negatively impacting consumer outcomes. The authors note that future studies should focus on developing e-learning programs to improve cultural competency and patient health outcomes, with accompanying programs to monitor effectiveness.

Another qualitative perspective was presented by Hajighasemi (2023), who used qualitative ethnographic methods, including semi-structured interviews, participant observation, and informal conversations, to examine how four welfare service organizations addressed the cultural needs of culturally diverse patients. The author examined the rapid demographic change in Sweden due to increased immigration and the presence of marginalized groups in a majority space. They sought to measure (i) the

proportion of employees from an ethnic background at both the operational and the managerial levels, (ii) the level of cultural awareness in the service provider organizations active in an ethnically diverse area, and whether senior managers in these organizations have mapped out the need for cultural sensitivity in the organization; and (iii) whether there is a clear strategy in place to increase cultural sensitivity in the organization. The results from this study indicated that the most efficient strategy to make social services more culturally sensitive is to hire more culturally diverse employees, especially at the operational and managerial levels. Other techniques included regular training initiatives led and updated by ethnic staff, as well as diversity plans to be implemented within the organization. The very small sample size limits the generalizability of the results. Therefore, future studies are needed to establish validity and develop policy recommendations. This study was important because the author discussed the implications of the demographic shift, its relationship to the field of social work, and the importance of having trained social workers engage with ethnically diverse clientele so they are open and respectful of culturally diverse people. Hajighasemi used this article to highlight the need to improve the cultural competencies of staff in human services organizations and offered in-depth insights into the diversity competencies embedded within service delivery structures.

Similarly, McCann et al. (2023) conducted semi-structured interviews to understand the perspectives of fourteen community pharmacy staff members in the United Kingdom, including pharmacists, technicians, dispensers, and counter assistants, to address an under-researched dimension in health care literature. The authors noted that

some inequalities in the health care system negatively impact underrepresented minority groups, including reduced access to health care services and poorer treatment outcomes. However, limited qualitative literature explores professionals' perceptions of culturally competent care and the most effective ways to deliver cultural competence training. As such, the authors sought to examine the perspective of pharmacy staff on cultural competence and identify effective ways to provide cultural competence training. Using a thematic analysis, McCann et al. identified three themes that suggest practical ways to deliver cultural competence training to community pharmacy staff. First, the participants stressed the need to define and highlight the importance of cultural competency within the profession. Next, the pharmacies adapted their image to become a safe space for diverse local community members. Finally, regarding practical delivery approaches, a collaborative effort involving patients and pharmacy staff generated ideas to improve how cultural competency training is designed, implemented, and delivered during service delivery. This study provided evidence that involving patients in the development of the training initiative can improve the program's efficacy and further improve patient outcomes. McCann also mentioned the limitations of using self-report measures in this study, as described previously, but emphasized that the results still had the potential to improve patient outcomes when patients collaborate to develop culturally competent initiatives.

Another study that used a qualitative approach was conducted by Antón-Solanas et al. (2021), who adopted a phenomenological approach. The authors used semi-structured interviews to investigate nursing lecturers' perceptions and experiences in

teaching cultural competence across four undergraduate nursing programs. The results of this study showed that cultural differences, both between educators and students and among students, frequently led to challenges and conflicts in the classroom. While the study did not offer actionable strategies, its findings highlighted the intricacies of teaching cultural competence and the need for strategies that accommodate diverse classroom dynamics.

Pre- and Posttests

Rahimi et al. (2023) combined the health care providers' self-assessment instrument with a pre- and post-test design. In this study, the Cultural Diversity Questionnaire for Nurse Educators Revised (CDQNE-R) was used to evaluate the effectiveness of their cultural competency training program. The authors noted that globalization and migration have increased cultural diversity in the health care system, prompting nurses worldwide to need cultural competency training to manage culturally diverse clientele and provide culturally congruent care. However, the authors note that, among the Iranian population, more research is needed to evaluate the efficacy of virtual cultural competency training for academic nurse educators. To address this gap in the literature, Rahimi et al. conducted a study with 69 nurse educators from six nursing schools in Kerman, Iran. They randomly assigned 35 participants to the intervention group and 34 to the control group. The training program included 3, 2-hour sessions over 1 month. The CDQNE-R was used as a pre-test and a post-test to evaluate the participants' cultural competence 1 month before and 1 month after the training. The pretest results showed similar scores between the intervention and control groups.

However, the post-test scores showed a significant increase in participants' cultural competence in the intervention group, indicating that programs dedicated to strengthening nurse educators' cultural competency should be a priority. However, Rahimi et al. noted that their results showed some support for the intervention. However, they were limited by their reliance on self-reported data, noting that the self-report instrument may not have accurately captured the true extent of participants' cultural competence. Further research with a larger sample size and an extended follow-up period was recommended to improve the generalizability of their findings across diverse academic settings.

Similarly, Robey and Dickter (2022) employed a pre- and post-intervention assessment for their study. The authors noted that students of color are disproportionately affected by racial microaggressions and negative interpersonal relationships when attending predominantly White institutions (PWIs) versus other tertiary-level education institutions, which can lead to substance use problems and adverse mental and physical health outcomes. To improve the cultural competence skills of white students in PWIs, the authors introduced structured coursework into an Introduction to Psychology course to enhance the cross-racial interactions of white students effectively. The authors adopted a cultural competency intervention, Safe Passages for U, which included 1 hour weekly online sessions featuring cultural competence plays, reflection questions, articles, and videos for 72 White undergraduate students. The results demonstrated a significant increase in cultural competency, an ability for the students to acknowledge their White privilege, and a decreased affinity to claim racial color-blindness. The implications of this

study show a replicable, cost- and time-effective way to conduct cultural competency training. It can yield positive outcomes in several fields, including training students, multicultural teaching performance in educators, and patient care in health care professionals. This approach demonstrated a replicable, cost-effective strategy for delivering cultural competence training, with potential benefits for students, educators, and health care professionals. However, the study's applicability may be limited by the academic standing and demographic characteristics of its participants, which may not reflect those of other institutions.

Sung and Park (2021) also adopted a one-group pre- and post-test design and reported improvements in nurses' cultural competence following the intervention. The authors highlighted the increased diversity of patients seen in medical facilities in South Korea. As such, they noted very little competency training and sought to highlight the importance of nurses' ability to provide culturally competent care. The study aimed to introduce and evaluate a phone app designed to conduct cultural competence training for nurses working at a tertiary teaching hospital in South Korea. Sung and Park developed the mobile app using the five stages of the ADDIE instructional model- analysis, design, development, implementation, and evaluation. The delivery format was an e-book format, and each learning module lasted 10-15 minutes, never exceeding 15 minutes to maximize concentration. The Cultural Competence Scale for Nurses- short form (CCSN-SF) was used to evaluate the effectiveness of the training programs, and the Mobile-App Rating Scale (MARS) was used to assess the quality of the mobile app. In a pre- and post-test intervention design, 49 nurses completed a cultural competence training program focused

on enhancing awareness, sensitivity, knowledge, and skill. The app presented 27 examples of cultural conflict in 8 learning modules over four weeks. The results demonstrated that the training program improved the cultural competence of nurses by showing a statistically significant difference in comparing the pre- and post-test scores. The authors also recommended using the mobile app as an on-the-job training initiative to improve the cultural competence of nurses in South Korea. Sung and Park expressed two limitations to this study, including focusing on short-term outcomes of effectiveness rather than long-term employee outcomes related to culturally competent nursing care or consumer outcomes related to treatment adherence of patients. Another limitation was that their sample came from a single tertiary teaching hospital in Seoul, South Korea, limiting the study's generalizability. This study provided support for an alternative way to present cultural competency training modules, such as developing and using an app, which would be effective. This is especially important considering the advancement of technology. Using this app may bolster participant recruitment and participation, thereby ensuring generalizability of the results. Nevertheless, the study emphasized short-term outcomes without addressing long-term effects on culturally competent nursing practice or patient adherence to treatment.

Client and Patient Report Measures

Chu et al. (2022) noted that before 2019, only 2.7% of the available literature used client-report measures to assess provider cultural competence. As mentioned, provider self-assessment measures have been validated and can provide actionable results; however, those evaluations do not necessarily reflect actual provider behavior. As

such, Chu et al. (2022) recommended that future research focus on alternative ways to assess provider cultural competence, including knowledge tests and behavioral observations of skills. Chu et al. (2022) also noted that it is worth examining the client/patient perspective on health care providers' cultural competence to determine whether cultural competency training would improve client/patient engagement and treatment outcomes.

Provider Cultural Competence Informing Patient Outcomes

As it stands, most of the literature used provider responses to assess provider cultural competence rather than patients' experiences or cultural needs. Moreover, while most tools focus on provider perceptions of their cultural competence, fewer studies examine how provider cultural competence directly influences patient outcomes, such as treatment adherence or long-term health equity. Bonsel et al. (2024) and Maboko et al. (2024) called for more research that centers on patient-reported measures to evaluate provider cultural competence. Such insights would not only deepen understanding of culturally sensitive care but also provide a benchmark for providers to assess and refine their own competencies. Chu et al. (2022) and Vella et al. (2022) highlighted this gap in their systematic reviews, noting that research should focus more on assessing provider cultural competence to establish a link to patient outcomes. This is where the gap in the literature lies.

In their systematic review, Vella et al. noted that they reviewed 7879 studies published between January 2010 and January 2021, of which only 5 met the inclusion criteria for reporting at least one patient outcome associated with health professionals'

cultural competence. The authors identified two randomized control trials, two mixed-method studies, and one multi-method pre/post study.

Randomized Controlled Studies

Intervention trials in cultural competence are often considered challenging to organize, difficult to set up, and limited in scope due to the inability to employ blinding (Kashyap & Gielen, 2022; Sequist et al., 2010). This design is further limited by small sample sizes, which reduce statistical power, an over-reliance on trainees rather than experienced practitioners working in complex clinical settings, and short follow-up periods that fail to capture chronic disease trajectories (Sequist et al., 2010). Nevertheless, Patel et al. (2018) and Sequist et al. (2010) both conducted randomized controlled trials with their participants, and the results were fairly similar.

First, in Patel et al.'s three-arm study of the Physician Asthma Care Education (PACE) program, the authors recruited and assessed 112 primary care physicians to determine how their levels of cultural competency impacted 867 African American and Latino/Hispanic children with persistent asthma. The participants were randomized into three groups, where the providers either offered care based on the standard PACE curriculum, the enhanced PACE Plus module with targeted cross-cultural communication training, or their normal care. The enhanced PACE plus cultural training module focused on providing the physicians with culturally appropriate strategies for understanding patients' beliefs, using interpreters effectively, and negotiating treatment plans. The results from this study showed that the physicians assigned to the PACE plus module reported increased confidence in using patient-centered and culturally sensitive

techniques. Additionally, the patients assigned to the PACE plus module reported a reduction in asthma-related hospitalizations at the 9-month mark. However, this advantage disappeared by the 21-month mark. Overall, the authors found no statistically significant differences across groups in the number of ER visits, frequency of asthma symptoms, caregiver quality of life, or caregiver satisfaction with physician communication.

Sequist et al. (2010) reached a similar conclusion in their studies aimed at reducing racial disparities in diabetes outcomes. The authors trained practicing clinicians to recognize and address implicit bias and structural barriers affecting the provision of care to Black patients. However, despite reported improvements in physician awareness and self-assessed patient engagement, the results showed no meaningful change in patients' objective diabetes indicators, including glycosylated hemoglobin levels, complication rates, or patient-reported trust and satisfaction, when compared to the control group of clinicians.

When considered together, these two studies highlight the critical gap in the literature between effective cultural competency training and achieving measurable patient-centered outcomes. As such, Sequist et al. (2010) recommended that future researchers conduct larger studies with varying contexts and robust patient-reported measures to assess the true impact of cultural competence on health equity.

Mixed-Methods Studies

The two mixed-methods studies reviewed yielded similar results to each other. First, Claramita et al. (2020) used a three-step framework to align primary care

physicians' communication style with the norms of respect, hierarchy, and relational harmony prevalent in Southeast Asian culture. The authors implemented a “Greet-Invite-Discuss” intervention that included a workshop focused on employing culturally resonant greetings, inviting patients to share narratives about illness beliefs, and discussing treatment options in a partnership model rather than a directive one. The post-intervention assessment revealed that the physicians reported a significant increase in their confidence in providing empathetic care. From a clinical standpoint, there was a statistically significant decrease in systolic and diastolic blood pressure among hypertensive patients and lower fasting glucose levels in patients with type 2 diabetes. Patients also reported increased perceived respect and clarity during consultations, greater satisfaction, improved understanding of chronic illness and the necessary management techniques, and increased motivation to take care of their health.

A similar study was conducted in the United States by Debiasi and Selleck (2017), who evaluated a 1-hour cultural competence training session for primary care nurse practitioners serving racially and ethnically diverse patients. The researchers used the Cultural Competence Assessment (CCA) tool in a pre-post intervention design to measure providers' self-reported competence in cultural awareness, sensitivity, and skill. The training intervention comprised didactic modules on cultural humility, case-based role-plays, and reflective exercises. The results of this study showed a statistically significant increase in provider confidence in appropriately gathering information on patients' cultural beliefs to inform and adapt their treatment care plans.

It is worth noting that Debiasi and Selleck's study primarily focused on provider-level outcomes; however, the researchers conducted a follow-up patient survey that assessed patient outcomes based on the culturally competent care received. The results from the follow-up surveys indicated that their patients felt more understood, respected, and trusting of their health care providers, and were more willing to adhere to treatment.

While both studies showed positive patient outcomes from fostering culturally congruent care, both studies have limitations. Claramita et al.'s (2020) sample consisted of physicians who chose to participate, suggesting they were already more inclined to engage in patient-centered care, which may limit its generalizability. Moreover, Debiasi and Selleck (2017) used a self-report assessment tool, limited data collection to a short duration, and did not conduct a long-term follow-up assessment to measure long-lasting effects.

Multimethod Pre- and Post-Study

The final study in Vella et al.'s (2022) review was conducted by Liaw et al. (2015), who averred that Aboriginal people in Australia faced increased barriers to accessing health care and sought to address this disparity by embedding cultural respect into routine clinical practice. Liaw et al. developed a program called "Ways of Thinking, Ways of Doing" (WoTWoD), which comprised a half-day workshop, a scenario-based toolkit, and support from Aboriginal cultural mentors. The multi-method, multi-perspective pre- and post-intervention study used medical record audits, staff Cultural Quotient (CQ) surveys, and interviews with practice teams and Aboriginal patients to assess differences in service delivery, clinical processes, and patient experience. The

results from the intervention revealed a significant increase in the clinician's ability to identify Aboriginal patients. There was also an increase in strategic thinking, motivation, confidence, and culturally appropriate behaviors and skills of the clinicians. As it relates to patient outcomes, this study showed an increase in the rate of health checks among Indigenous peoples, as well as improvements in the screening and management of chronic disease risk factors, including smoking, blood pressure, BMI, and cholesterol. Finally, the Aboriginal patients reported feeling more respected and understood, noting a more amicable clinical environment, culturally sensitive inquiries, clearer explanations of their health status, and increased trust in their health care providers.

From these results, Liaw et al. (2015) demonstrated that embedding cultural respect into health care practice can improve access to care, mitigate risk factors, enhance patient trust, build a stronger sense of cultural safety, and improve patient care.

Cultural Competence and Patient Outcomes

Researchers, educators, and policymakers are increasingly realizing that culture and cultural identity are critical components in health care, social work, and other human service domains. Consequently, failing to acknowledge and foster cultural considerations can significantly undermine the efficacy and effectiveness of practice within these sectors (Hajighasemi, 2023). Cultural competence, once understood as the convergence of behaviors, attitudes, and skills within systems or among professionals, can facilitate effective work in intercultural settings and provide a foundational framework for addressing those challenges (Hajighasemi, 2023).

In the literature, there is general agreement on the potential of cultural competence to improve access and outcomes in patient care (Kashyap & Gielen, 2022). The literature suggests that health care providers who adopt qualities such as cultural competency with their patients can foster better rapport, higher-quality care, and greater medication self-efficacy (Arora et al., 2024). Moreover, accessible, inclusive, and comprehensive care improves patient outcomes related to their health, well-being, and overall quality of life (Arora et al., 2024), while also shielding them from oppressive and discriminatory attitudes and treatments, fostering more equitable and respectful care experiences (Hajighasemi, 2023).

The literature indicates that migrant populations often report lower satisfaction with health care services compared to native-born individuals. This disparity is largely attributed to persistent barriers such as language and communication challenges, which disproportionately affect socially and culturally marginalized groups (Romain, 2025). Addressing these barriers, through patient education in preferred languages and increased workforce diversity, can reduce patient anxiety, improve treatment adherence, and foster more effective provider–patient communication.

In fact, a culturally competent health care system that intentionally acknowledges and integrates the significance of culture in its structures empowers institutions and practitioners to respond equitably and effectively to the needs of diverse populations (Kashyap & Gielen, 2022). Equitable health care systems aim to ensure equal access and comparable health outcomes across the populations they serve, and, in doing so, achieve greater equity by aiming for parity in access and health outcomes across all populations.

The integration of cultural competence, both at the level of individual health care providers and within health care organizations, can play a pivotal role in helping patients access timely, appropriate, and equitable care (Kashyap & Gielen, 2022).

Linking Cultural Competence and Patient Outcomes

Although extensive research demonstrates the benefits of cultural competence for health care professionals (Vella et al., 2022), there remains limited investigation into its direct impact on patients and health care consumers. While some studies employ patient-reported measures to assess cultural competence, these are still relatively underrepresented compared to provider self-assessments. Given that patient satisfaction is closely linked to perceptions of culturally appropriate care, it is imperative to prioritize and understand patients' perspectives (Bonsel et al., 2024; Maboko et al., 2024).

According to the Donabedian model of health care quality, several measurable outcomes can serve as paramount indicators of health care quality, as they reveal whether the care provided has led to noteworthy or meaningful improvements in the patient's health status (Dziak, 2024). Patient outcomes, such as changes in health status, recovery rates, avoidable readmissions, and survival, are central indicators of care quality (Ferreira et al., 2023). Although cultural competence has been shown to improve staff capabilities, a significant gap remains in research linking these improvements to patient-level outcomes (Alizadeh & Chavan, 2016; Arora et al., 2024; Chu et al., 2022; Vella et al., 2022). While the existing literature supports integrating cultural competence to improve communication and patient satisfaction among cultural minorities, there is limited data on its role in enhancing patient outcomes and reducing health disparities. Moreover, little is

known about the applicability of cultural competence in health care in developing countries, such as The Bahamas, highlighting the need for further context-specific research (Kashyap & Gielen, 2022).

Several patient health outcomes have been identified as essential for understanding the effect of cultural competence. Although it would be ideal to determine a comprehensive range of patient outcomes, including clinical measures, behavioral indicators, and population-level metrics, this study focuses on a specific group of outcomes highlighted in similar research. Specifically, it considers patient understanding, treatment self-efficacy, medication adherence, and patient satisfaction, all of which are essential for evaluating the effectiveness of health care services (Arora et al., 2024; Churruca et al., 2021). Each variable aligns with distinct research questions and corresponds to components of the tripartite model focused on assessing cultural attitudes, knowledge, and skills.

Patient Health Outcomes

Patient Understanding

The Americans with Disabilities Act establishes standardized guidelines requiring physicians to provide patients with limited English proficiency with effective communication (Santana et al., 2023). McKay et al. (2021) argued that patient-reported outcomes are positively affected when efforts to increase patients' understanding of underlying diseases are incorporated into care pathways. As such, it is the responsibility of the health care provider to ensure that they communicate both verbal and written information effectively (Kotátková & Miralles Hernández, 2025). Failure to successfully

integrate patients during the diagnostic process results in a poor understanding of the tests being administered and/or the diseases being diagnosed, even though understandable and careful information delivery is essential to assuring patients of the quality and validity of their results (McKay et al., 2021).

Medical reports, for example, are a form of communication that includes the patient's medical history, test results, evolution, diagnosis, and treatment. Patients use their medical reports to better understand what ails them and how it can be addressed. However, these sections contain most of the elements that make the reports difficult to understand (Kořátková & Miralles Hernández, 2025). A lack of understanding of the documents provided by health care providers can lead to widespread mistrust of the health care system. Additionally, misunderstandings can lead to confusion, fear, anxiety, and dangerous decisions such as self-diagnosis or self-medication. Therefore, there is an urgent need to optimize communication with patients to ensure that they not only have access to relevant information but also fully understand it (Kořátková & Miralles Hernández, 2025). Inadequate understanding can lead patients to discontinue treatment when side effects occur or when efficacy is not fully achieved in the early stages of treatment. Moreover, a lack of understanding can lead patients to discontinue treatment prematurely, particularly when side effects arise or therapeutic effects are not immediately visible, contributing to dissatisfaction and reduced adherence (Takahashi et al., 2025). Kořátková and Miralles-Hernández (2025) and Romain (2025) suggested that maintaining open and transparent communication and recommending tailored patient reports are strategies for fostering mutual understanding, reducing anxiety, and enhancing

treatment compliance. Additionally, diagnostic approaches that provide health care information in patients' preferred languages, with clear, accessible explanations, empower patients to understand disease progression and take ownership of their care (McKay et al., 2021).

Patient Treatment Self-Efficacy

To date, limited research has explored the impact of health care provider cultural competence on patients' treatment self-efficacy and adherence. Arora et al. (2024) identified self-efficacy regarding treatment-taking and compliance as an important patient-reported outcome to consider. Generally, self-efficacy reflects a person's confidence in their ability to accomplish tasks (Huang et al., 2025) and is the main prerequisite for behavior change, including health behaviors (Kazemi et al., 2022).

Self-efficacy can be enhanced when placed in the context of a positive and welcoming environment that uses intercultural awareness, sensitivity, and competence (Huang, et al., 2025). When clinicians adopt culturally competent qualities with their patients, they can help build better rapport, improve the quality of care, and increase medication self-efficacy. These qualities are considered essential for developing and sustaining people-centered health systems (Arora et al., 2024).

Patient Adherence to Medication

There is very little research that examines how patients perceive their providers' cultural competence and how those perceptions influence their health care behaviors. Medication adherence, the extent to which patients take medications as prescribed, has always been a challenge in chronic disease management. The World Health Organization

defines adherence as “the extent to which a person’s behavior corresponds with agreed recommendations from a health care provider” (Yoon et al., 2023). Despite its critical role in treatment success, roughly half of all patients with chronic illnesses fail to follow their medication regimens, leading to poorer clinical outcomes and higher health care costs (Yoon et al., 2023). Cultural beliefs and values play a central role in shaping patients’ attitudes toward medications. In marginalized and minoritized communities, traditional health beliefs may foster suspicion of pharmaceutical treatments or prioritize alternative remedies, undermining adherence (Yoon et al., 2023). Language differences and distinct communication styles further exacerbate misunderstandings, leaving patients ill-informed about dosing, side effects, and the long-term benefits of therapy (Segal et al., 2025; Yoon et al., 2023).

Gaston (2013) found that African American patients who believed their HIV providers truly understood their cultural backgrounds demonstrated higher adherence to their recommended treatment and therapy. Additionally, trust in the health care provider was an important mediating factor in this effect, linking perceived cultural sensitivity with better health behaviors and outcomes. Targeted interventions and strategies focused on building cultural competency such as using familiar language, collaborating with patients and their families, reinforcing the patient–provider relationship can help health care providers build rapport, dispel medication-related fears, and tailor interventions to patients’ cultural needs and perspectives, thereby enhancing adherence across culturally diverse groups (Segal et al., 2025; Yoon, et al., 2023). Culturally competent and responsive training of health care providers not only has the capacity to foster sustained

behavior change but also provides equitable, patient-centered care that can improve health outcomes, such as patient adherence to medication.

Summary and Conclusions

Despite a lack of consensus on how to define the term, the literature supporting the need for cultural competency in the health care setting is extensive. The TMCC was used to ground this study in the literature and to guide its focus when investigating provider-level cultural attitudes, knowledge, and skills in health care. Stubbe (2020) argued that, through cultural competence, health care institutions can become more effective and equitable by serving their patients in ways that respect, understand, and appropriately respond to the various needs of their culturally diverse patients.

Within the literature, cultural competence is assessed from two perspectives. Most researchers used provider-report measures, while fewer focused on patient-reported measures of the PCC of their providers. The studies that focused on the provider-report measures mostly used self-report assessments for the providers to give their perspectives on how they think they improved. Alternative assessment designs involved using qualitative or open-ended responses and pre- and post-test exams. Regarding the patient-reported measures, it was noted that there was very little literature on this approach. Consequently, Chu et al. (2022) called for more studies to focus on patient-reported assessments, as they can provide an alternative perspective on cultural competency in health care that is more directly related to patient outcomes. Therefore, this study focuses on assessing perceived provider cultural competence from the patient's perspective to understand the extent to which it affects patient outcomes.

There is extensive literature supporting the benefits of training health care providers to be culturally competent. However, little to no research determines how cultural competence influences patient outcomes. Using the Donabedian model, the following outcomes were chosen for further investigation: patient understanding, treatment self-efficacy, medication adherence and compliance, and patient satisfaction (Arora et al., 2024; Churruca et al., 2021). This study aims to bridge that gap by using patient-reported measures to explore how PCC impacts the mentioned patient outcomes. The evidence from this study has the potential to create a paradigm shift, leading the Bahamian health care system to provide equitable, culturally congruent care to reduce health disparities among culturally diverse populations and improve public health.

Chapter 3: Research Method

The purpose of this study was to determine how PCC in health care providers impacts patient outcomes. Using a quantitative design, the study aimed to determine whether cultural competence was related to key indicators of patient care. Chapter 1 established the foundation of the current study and introduced its scope and significance, while Chapter 2 situated the study within the broader scholarly discourse and identified a critical gap in the literature that this study sought to fill. Chapter 3 provides a detailed outline of the methodological framework and procedures used to answer the research questions.

This chapter begins by describing the research design and rationale for its selection. The chapter then describes the target population and determines the sampling frames, recruitment procedures, and sample size. The chapter also outlines the procedures for data collection, including the collection instruments, protocols, analysis techniques, and software tools utilized, and identifies potential threats to validity in the current study and the reliability measures of the surveys used. Finally, this chapter outlines the necessary ethical procedures, considerations, and approvals required for this study's completion.

Research Design and Rationale

Study Variables

Several patient health outcomes are essential to understanding the impact of cultural competence on patient care. Specifically, patient-reported understanding, treatment self-efficacy, medication adherence, and satisfaction serve as critical indicators

of whether culturally responsive practices are effective (see Arora et al., 2024; Churrucá et al., 2021) and provide direct insight into how well care aligns with individual needs and expectations.

Connection to Research Questions

To answer the research questions in this study, a causal-comparative design was used to compare several preestablished groups where experimental manipulation of the variables was not possible (see Schenker & Rumrill, 2004). This design was also chosen because the target population of this study was a vulnerable population that may have included marginalized and/or undocumented individuals. Therefore, experimental manipulation would have been unethical and practically infeasible. As such, preexisting groups were compared, and data were analyzed based on group membership.

Time and Resource Constraints

First, although the study focused on cultural fairness and asked about language preference, it was only available in English, as the psychometrics for the proposed survey had not been established for alternative languages. Another constraint of the study was access to the participants. As mentioned, recruiting participants may have been a challenge, as this population is vulnerable and may be less inclined to participate. It should be noted that some participants may have been undocumented individuals, which could have increased their hesitancy to participate in research studies due to fear of repercussions or retaliation. To mitigate this limitation, participants were assured that this study did not require their names or any other identifiable information, that the research project had no affiliation with the government, that their information would be protected

under legal and ethical guidelines, and that the information gained would only be used for educational purposes and to inform policies that may improve their experience. To further cement this disposition, a lawyer was consulted to ensure that participation in the study did not conflict with any Bahamian laws.

Advancing Knowledge in the Field

This study was significant in that the knowledge gained will contribute to understanding the level of cultural competency of health care providers positioned in The Bahamas and inform possible training protocols needed to improve cultural competence, health care equity, and public health. Stakeholders will be informed of the benefits of the study, which will include knowledge of their current state of affairs, data to inform understanding of public health outcomes, insights into how the culturally diverse population perceives their health care providers, and recommendations to improve procedures and policies to raise their standards of operation. There is a severe lack of research and evidence-based initiatives coming out of The Bahamas and the Caribbean as a whole. The results of this study would inform the government of The Bahamas and, potentially, the region about their deficits in health care and in attending to their culturally diverse population. However, even more so, this study can serve as a blueprint for the entire Caribbean to consider how we address multiculturalism throughout the region, advocate for scrutiny in how we address migrant populations, and how we can improve patient outcomes and decrease health disparities.

Methodology

Population

The research population for this study included adults living in The Bahamas who are non-Bahamian or otherwise culturally diverse. While the exact number of non-Bahamians currently living in The Bahamas is unknown, the best approximation comes from The Bahamas National Statistical Institute (2022), formerly known as The Bahamas Department of Statistics. As of 2022, the department recorded approximately 59,124 non-Bahamians residing in The Bahamas, accounting for about 14.8% of the total population, which stood at 398,165 at the time of this census. This approximation accounts for permanent residents, temporary residents, individuals who hold work permits, and undocumented individuals. While the 2022 report does not account for every nationality, historically and anecdotally, the largest groups of non-Bahamians in The Bahamas identify as Haitian, followed by Jamaicans, Americans, Filipinos, Chinese, and then Cubans. The majority, approximately 44,041 non-Bahamians, are concentrated on the main island of New Providence, which serves as the capital. This is where this research study took place, as the majority of the health care facilities are also located on this island.

Sampling and Sampling Procedures

Random sampling would have been the ideal sampling technique for this study, and it was the technique initially proposed. However, upon further development and inspection, it was determined that convenience sampling was the most effective and feasible approach to completing this research project in a timely manner. As such, data

were collected through non-probability sampling, in which participants were selected based on their characteristics, such as availability, proximity, or convenience (Goves et al., 2009). While this sampling method limits generalizability, it was chosen because random sampling is impractical given the logistical constraints mentioned.

Sampling Frame (Inclusion Criteria and Sampling Size)

The inclusion criteria for this study included non-Bahamian patients from both the public and private sectors who are above the age of eighteen and have received medical/health care services within the last 12 months. A non-Bahamian participant by nationality is anyone in The Bahamas who was not given nationality by birth or naturalization. Exclusion criteria include any patient who is Bahamian by birth or naturalization. The G*Power software was used to determine the sample size. Using one predictor variable, the sample size was calculated at 55 people for a medium effect size ($F2 = .15$), $\alpha = .05$ - a type 1 error of 5% and a power ($1 - \beta$) of 80%.

Procedures for Recruitment, Participation, and Data Collection

Culturally diverse patients who received treatment from both the public and private sectors, including those at the Public Hospitals Authority (PHA) institutions (Princess Margaret Hospital, Sandilands Rehabilitation Centre), Doctors Hospital (Shirley Street and Blake Road locations), and the Department of Public Health clinics during the 12 months leading up to the launch of this study, were recruited.

Using an internet-based research strategy, participants were recruited via social media platforms, including WhatsApp, X (formerly Twitter), Instagram, and Facebook. A clickable link in the social media ads/posts redirected potential participants to the

platform SurveyMonkey, which has a longstanding reputation for security, privacy, and confidentiality. The ads and posts complied with each platform's usage policy. They included elements of informed consent, such as the study's purpose, target population, expected completion time, confidentiality, and the researcher's contact information in case questions arise. There were no other parties involved in this step besides the researcher, and interactions took place solely on the online platforms mentioned. Patients were assured that no identifiable information was required. IP trackers on SurveyMonkey were disabled to ensure participant information remained confidential, and only authorized members of the research team viewed the associated data. Once collected, the data were aggregated and anonymized to further protect the privacy of all participants. To mitigate potential risks to participants' psychological well-being, contact information for mental health professionals was also provided at the beginning of the survey.

Instrumentation and Operationalization of Constructs

For this research design, diverse patients were required to volunteer their experiences and perspectives using the following Patient-Reported Experience Measures (PREMs) and Patient-Reported Outcome Measures (PROMs). First, the Patient-Reported Physician Cultural Competency measure (PRPCC), used by Arora et al. (2017), is a PREM that evaluates health care provider behavior using the "History-Taking" subscale, which focuses on their diligence in history-taking and their ability to explain the patient's prognosis. Arora et al. (2017) also used the "Explaining" subscale to assess PCC by evaluating how effectively providers communicated with their patients in a culturally appropriate manner. This tool assessed patient understanding of the information

communicated. The PRPCC is available for download in the public domain, and according to Thom and Tirado (2006), the tool can “be reproduced and used for non-commercial research and educational purposes without seeking written permission”.

To measure patient treatment self-efficacy, the PROMIS Self-Efficacy for Managing Chronic Conditions – Managing Medications and Treatment – Short Form is a PROM that measures patients’ confidence in their ability to manage their medication and treatment plan effectively (Gruber-Baldini et al., 2017). It is a frequently used, valid, and reliable questionnaire available for download in the public domain and accompanied by an instruction and scoring manual.

To assess patient adherence to treatment plans, Arora et al. (2024) used the “Compliance” subscale of the Generic Medical Interview Satisfaction Scale (G-MISS) to measure compliance with participants’ clinical treatment regimens. Maurice-Szamburski et al. (2017) provide a full copy of the scale in their validation report, located in the appendix. The article is authorized for use by Springer Nature Journal for small-scale personal, non-commercial use, provided that all copyright, trade and service marks, and other proprietary notices are maintained. The other two subscales of the Generic Medical Interview Satisfaction Scale (G-MISS) were used to measure patient satisfaction. The “Relief” subscale measures the extent to which patients feel relieved after consulting with their health care provider, and the “Communication” subscale evaluates the quality of the conversation, providing a comprehensive overview of patient satisfaction. The entire Data Collection Instrument was developed using SurveyMonkey, including all instructed reserve scoring items, and comprised the following sections:

- informed consent
- sociodemographic information (age, sex, race, nationality[ies], ethnicity, language preference, education level, socio-economic status and number of hospital/clinic visits in the last year)
- the Patient-Reported Physician Cultural Competency (PRPCC) measure
- the PROMIS Self-Efficacy for Managing Chronic Conditions
- the Generic Medical Interview Satisfaction Scale (G-MISS)

Access to the Data Set and Permissions

Participants were informed of the voluntary and anonymous nature of their participation, and Informed Consent was obtained prior to beginning the survey. Given the sensitive nature of the data being collected, only the researcher and their committee team members had full access to the dataset for analysis, write-up, and recommendations. No research assistants were needed to execute this study. Additionally, Walden University's Institutional Review Board (IRB) solely provided oversight to ensure this study met ethical standards for human participants. Governmental and private agencies will have access only to this study's results to inform innovation, interventions, and adapt policies for public health, public safety, and regulatory purposes.

Data Analysis Plan

The Software Packages for Social Science (SPSS) were used to analyze the data collected. Descriptive statistics were analyzed using frequencies and measures of central tendency (mean, median, and mode). Cleaning was required to ensure the best data quality and that the data collected was precise, accurate, and consistent. Once the raw

data were collected, cleaning was initiated to remove any inconsistent, incorrect, or unusual data entries that could skew analysis and results. In this study, data cleaning was completed in two phases. First, the data set was exported from SurveyMonkey to Microsoft Excel for initial cleaning. During this phase, the goal was to determine that the responses came from the target population. As such, respondents who did not meet the stated inclusion criteria were filtered out, age ranges were validated to ensure they fell within the expected boundaries, duplicates were removed, incomplete survey responses were identified, and missing values were managed through imputation or deletion, removing rows with excessive missing values. Outlier responses and review response summaries for any other implausible responses were also identified.

Next, the dataset was transferred from Microsoft Excel to SPSS for a final round of cleaning. While in SPSS, the spreadsheet was thoroughly reviewed to determine if respondents made any mistakes, including selecting the same response repeatedly (straight-lining), answering in a predictable response pattern, providing unrealistic responses, or failing to complete all required sections. Once the dataset was cleaned and approved, the cleaned version was saved as a new dataset and used for analysis.

Research Questions and Hypotheses

RQ1: Does patient understanding differ across levels of PCC?

H_0 1: Patient understanding does not increase with higher levels of PCC.

H_a 1: Patient understanding increases with higher levels of PCC.

RQ2: Does treatment self-efficacy differ across levels of PCC?

H_0 2: Treatment self-efficacy does not increase with higher levels of PCC.

H_{a2}: Treatment self-efficacy increases with higher levels of PCC.

RQ3: Does adherence to medication differ across levels of PCC?

H_{o3}: Adherence to medication does not increase with higher levels of PCC.

H_{a3}: Adherence to medication increases at higher levels of PCC.

RQ4: Does patient satisfaction differ across levels of PCC?

H_{o4}: Patient satisfaction does not increase with higher levels of PCC.

H_{a4}: Patient satisfaction increases with higher levels of PCC.

RQ5: Does perceived cultural History-Taking by health care providers predict patients' understanding of their diagnoses/conditions?

H_{o5}: Perceived cultural History-Taking by health care providers does not predict patients' understanding of their diagnosis/conditions.

H_{a5}: Perceived cultural History-Taking by health care providers positively predicts greater patient understanding of their diagnosis/conditions.

RQ6: Does PCC in health care providers predict patients' treatment self-efficacy?

H_{o6}: PCC in health care providers does not predict patients' treatment self-efficacy.

H_{a6}: Higher PCC in health care providers is positively associated with greater levels of self-efficacy in managing their treatment and condition.

RQ7: Does PCC in health care providers predict patients' adherence to treatment plans and medication?

H_{o7}: PCC in health care providers does not positively predict patients' adherence to their treatment plans and medication.

H_{a7}: Higher PCC in health care providers is positively associated with greater adherence to medication and compliance with the intervention plan.

RQ8: Does PCC in health care providers predict patient satisfaction?

H_{o8}: PCC in health care providers does not positively predict patients' satisfaction with their overall health care experience.

H_{a8}: Higher PCC in health care providers is positively associated with greater levels of satisfaction with their overall health care experience.

Statistical Tests

ANOVA and bivariate linear regression models were used to provide a clear examination of the relationship between a single predictor and a single outcome. The ANOVA was used to assess whether group means varied significantly in relation to the outcomes. Using ANOVA, the study determined whether variations in PCC were associated with meaningful differences in patient-reported understanding, treatment self-efficacy, medication adherence, and satisfaction, while controlling for the increased Type I error rate that would occur if multiple t-tests were conducted. Post hoc comparisons were used to further clarify significant results. *F* values were used to determine whether the differences observed among group means were greater than what would be expected by chance, and the accompanying *p*-value provided the probability that these differences occurred randomly.

The regression model allowed for a direct interpretation of the extent to which PCC predicts patient outcomes. By modeling each outcome separately, simple regression reduces complexity, avoids overfitting, and ensures findings remain transparent and

easily interpretable. These approaches align with the study's goal of isolating distinct patient experiences in relation to provider cultural competence rather than conflating outcomes into a multivariate structure. In doing so, the simple regression models enhance clarity while supporting methodological rigor. The results from these regression models were interpreted using the regression coefficient to determine the direction and magnitude of the effect. *P*-values were used to determine statistical significance, and the *R*-squared (R^2) values explained the amount of variance explained by each outcome.

Threats to Validity

Threats to validity could undermine the research findings if they are not carefully identified and addressed. In the context of this study, several potential threats to validity have been identified. To address external threats to validity, the following precautions were taken to ensure the generalizability of the research findings. A noteworthy threat to external validity is the limited scope of outcomes. While various outcomes have been identified as indicators of health care equity, this study focused on four at this time. This could result in broader impacts or explanations being missed. However, the four outcomes identified were selected for their prevalence in the existing literature on cultural competence in health care. Moreover, this study aims to serve as a foundation for future research by providing a framework for exploring other outcomes.

On the other hand, internal threats to validity can affect causal inferences within this study. For example, measurement error may occur when the survey questions or selected quantitative instruments do not accurately reflect, test, assess, or measure the construct of interest. The best way to overcome this error is to choose or develop

quantitative instruments that are valid and reliable. As such, PCC and the stated patient outcomes were measured using tools previously used in the literature in a similar context, all of which are valid and reliable. Additionally, Grimm (2010) and Kroscnick (1999) also recommend explicitly identifying questions vulnerable to SDB and urge participants to consider their responses carefully. This action is enough to improve accuracy and mitigate measurement errors.

To address potential threats to construct validity, the PCC variable was appropriately operationalized to capture the full construct. Additionally, to manage social desirability bias, no self-report measures were used. Instead, patients were asked to report their experiences with health care providers anonymously.

Ethical Procedures

Due to the potential stigma and discrimination against foreign nationals in The Bahamas, volunteers were not asked to complete the survey in a public setting. They were recruited online and were able to answer the survey or not of their own volition, without anyone else being privy to its completion. Social media platforms, including WhatsApp, X (formerly known as Twitter), Instagram, and Facebook, were used to share the secure survey link with the target population, in compliance with each platform's terms of service. Each person responded to the secured survey using a device of their choice, in their own privacy and comfort, and IP address tracking was disabled within SurveyMonkey. Data will be disposed of using the operating system utilities to overwrite the collected data multiple times once the requisite holding time of 5 years has passed. The ad/post included a brief excerpt introducing this study, a link to the survey, and

contact information for the researcher in case of any questions. There were no other parties involved in this study besides the researcher, and interactions took place solely on the online platforms mentioned.

All findings, including null or negative results, study limitations, and potential conflicts of interest, are reported transparently. A final summary report will be prepared, published, and presented in a public forum through a community assembly using a PowerPoint presentation. A brief summary report will also be mailed to the administrative offices of both major hospitals in The Bahamas, including those under the Public Hospitals Authority (public health care) and Doctors' Hospital (private health care).

IRB Permissions and Access

This study was sanctioned and approved by Walden University's IRB under approval code 11-20-25-1175916 to ensure that its procedures and protocols met institutional standards.

Participant Treatment

Informed consent parameters were placed at the beginning of each survey. In doing so, each participant received clear information pertaining to this study's purpose, procedures, and potential risks. Consent forms were translated and reviewed for cultural relevance to ensure comprehension across diverse populations. To mitigate potential risks to participants' psychological well-being, contact information for mental health professionals and support resources was provided in the survey introduction. The informed consent also highlighted the concepts of anonymity and confidentiality, as the

online data were stored securely and handled appropriately. Participants held the right to withdraw from this study at any time, for any reason, without repercussion. Finally, the report includes intervention recommendations to improve the quality of care for a historically underserved population and to inform realistic improvements in clinical practice focused on health care equity.

Summary

This study used a causal-comparative research design to examine the relationship between PCC and key patient outcomes, including patient understanding, treatment self-efficacy, medication adherence, and overall satisfaction. The requisite data to establish this relationship were collected from non-Bahamian patients. Respondents were recruited to participate in the online survey via a secure link to SurveyMonkey. Ethical protocols and protective measures were implemented to safeguard this vulnerable population throughout the research process. Data collection involved presenting a compilation of valid and reliable instruments aligned with each dependent variable. Upon completion, responses were anonymized, systematically exported from SurveyMonkey to Microsoft Excel, and subsequently imported into SPSS for statistical analysis using simple regression techniques. Potential threats to internal and external validity were identified and appropriately mitigated. Finally, the findings will be disseminated to the public, study participants, community stakeholders, and relevant organizations to illuminate the current state of cultural competence within the Bahamian health care system and to serve as a catalyst for dialogue, policy development, and systemic reform.

Chapter 4: Results

The purpose of this quantitative study was to investigate the relationship between the PCC of health care providers in The Bahamas and the health outcomes of non-Bahamian patients they treat. The predictor variable was provider PCC. The criterion variable was patient outcomes, including patient understanding, treatment self-efficacy, adherence to medication, and satisfaction.

Chapter 4 presents this study's findings, beginning with reiterating the research questions and their corresponding hypotheses, followed by an overview of the data collection process, including the data collection period, recruitment process, and response rate, as well as the discrepancies in data collection from the original plan, to better contextualize the results. The chapter then details the outcomes of the analysis, organized around the research questions and objectives. Additionally, tables and figures are presented to demonstrate significant patterns, trends, and relationships within the data. The chapter concludes with a summary that synthesizes the main findings and introduces the discussion and conclusion in Chapter 5.

Research Questions and Hypotheses

RQ1: Does patient understanding differ across levels of PCC?

H_01 : Patient understanding does not increase with higher levels of PCC.

H_{a1} : Patient understanding increases with higher levels of PCC.

RQ2: Does treatment self-efficacy differ across levels of PCC?

H_02 : Treatment self-efficacy does not increase with higher levels of PCC.

H_{a2} : Treatment self-efficacy increases with higher levels of PCC.

RQ3: Does adherence to medication differ across levels of PCC?

H₀3: Adherence to medication does not increase with higher levels of PCC.

H_a3: Adherence to medication increases at higher levels of PCC.

RQ4: Does patient satisfaction differ across levels of PCC?

H₀4: Patient satisfaction does not increase with higher levels of PCC.

H_a4: Patient satisfaction increases with higher levels of PCC.

RQ5: Does perceived cultural History-Taking by health care providers predict patients' understanding of their diagnoses/conditions?

H₀5: Perceived cultural History-Taking by health care providers does not predict patients' understanding of their diagnosis/conditions.

H_a5: Perceived cultural History-Taking by health care providers positively predicts greater patient understanding of their diagnosis/conditions.

RQ6: Does PCC in health care providers predict patients' treatment self-efficacy?

H₀6: PCC in health care providers does not predict patients' treatment self-efficacy.

H_a6: Higher PCC in health care providers is positively associated with greater levels of self-efficacy in managing their treatment and condition.

RQ7: Does PCC in health care providers predict patients' adherence to treatment plans and medication?

H₀7: PCC in health care providers does not positively predict patients' adherence to their treatment plans and medication.

H_{a7}: Higher PCC in health care providers is positively associated with greater adherence to medication and compliance with the intervention plan.

RQ8: Does PCC in health care providers predict patient satisfaction?

H_{o8}: PCC in health care providers does not positively predict patients' satisfaction with their overall health care experience.

H_{a8}: Higher PCC in health care providers is positively associated with greater levels of satisfaction with their overall health care experience.

Data Collection

Ethical Considerations

Following receipt of formal approval from Walden University's IRB, the data collection process was initiated in accordance with ethical research standards. This approval ensured that this study met all institutional and federal guidelines for the protection of human subjects. Prior to participation, individuals were provided with a comprehensive informed consent form that outlined the purpose of this study, the procedures involved, potential risks and benefits, payment and security details, their rights as participants, and the contact information for the researcher and Walden University's Research Participant Advocate to address any questions, comments, queries, or concerns. To maintain the highest standards of ethical integrity, participant anonymity and confidentiality were rigorously maintained throughout the research process. No identifying information was collected, and data were reported in aggregate form to further prevent response tracking. Participation in this study was entirely voluntary, and participants were informed that they could withdraw their consent to participate at any

time without penalty or repercussions. These protocols were established to ensure participants were fully aware of their involvement and that their autonomy and dignity were respected throughout the research process.

Tools and Time Frame

Data were collected through an online survey conducted between November 20, 2025, and December 20, 2025. The survey included the following sections:

- informed consent
- two qualifying questions related to the inclusion criteria
- sociodemographic data that included 11 questions
- the Patient-Reported Physician Cultural Competency measure (PRPCC), which included 13 Likert-style items requiring participants to select an option ranging from Never, Seldom, Sometime, Usually, or Always to measure PCC in health care providers.
- the Managing Chronic Conditions – Managing Medications and Treatment – Short Form 4a (MMT), which included 4 Likert-style items requiring participants to select an option ranging from Not at all confident, A little confident, Somewhat confident, Quite confident, or Very confident. These questions are used to measure patient treatment self-efficacy
- the Generic Medical Interview Satisfaction Scale (G-MISS) was a 16-item Likert-style scale requiring participants to select an option ranging from Strongly Disagree, Disagree, Neutral, Agree, or Strongly Agree.

Scoring Parameters of Assessment Tools

1. The PRPCC is designed to measure patients' perceptions of their health care provider's cultural competence. Scores are calculated by summing responses across all items, resulting in a total score that ranges from 13 to 65, with higher scores indicating greater perceived competence. The History Taking subscale includes the first five items (scoring range 5–25), which evaluate the extent to which providers inquire about and consider patients' cultural background, beliefs, and practices during the medical interview. The Explaining subscale, composed of the remaining eight items (scoring range 8–40), assesses how effectively providers communicate medical information in a culturally sensitive and understandable manner. Although Thom and Tirado (2006) did not establish fixed thresholds, scores are generally interpreted using percentage ranges of the maximum possible score. To facilitate interpretation, total scores were converted into percentages of the maximum possible score and categorized into three levels: low competence (< 60% of maximum; ≤ 38 points), moderate competence (60–79%; 39–51 points), and high competence ($\geq 80\%$; ≥ 52 points).
2. The MMT measures a patient's confidence in managing their medications and treatment routines, otherwise known as treatment self-efficacy. The raw score is computed by adding the responses for all four items. Raw scores of 16 – 20 are considered high and indicate a strong confidence in managing medications and treatment, scores of 10-15 are considered moderate scores and indicate

some confidence, but possible barriers to self-efficacy, while a score less than 10 is low and indicates limited confidence, suggesting a need for support or intervention.

3. The G-MISS was used to measure adherence with participants' clinical treatment regimens and patient satisfaction. The 16 items are structured across three dimensions of patients' experiences, including Relief, Communication, and Compliance. Within the literature, the Relief subscale (items 1–8) and the Communication subscale (items 9–14) are commonly used to measure patient satisfaction with a score range of 6-70, while the Compliance subscale (items 15–16) measures adherence to medication and treatment plans with a score range of 16 – 18 (Maurice-Szamburski et al., 2017). There are no fixed thresholds for this tool due to variations across studies; however, scores are generally interpreted using percentages of the maximum possible score and categorized into three levels: low scores ($\leq 60\%$ of maximum; ≤ 47 total), moderate scores (60–79% of maximum; 48–63 total), and high scores ($\geq 80\%$ of maximum; ≥ 64 total) (Arora et al., 2024).

Recruitment Process

To address the research questions, quantitative data were collected using a structured and comprehensive online survey. The participants in this study were recruited through convenience sampling, through social media websites, and community forums. This approach allowed for efficient access to a broad range of respondents. Although this sampling method limited the generalizability of the findings, the survey instrument used

three previously validated scales to support validity. All participants were asked to review and consider the informed consent form prior to participation, and consent was implied by their continued participation in the survey. Data confidentiality was maintained by the anonymization of responses, disabling of IP address tracking, and secure digital storage. The data collection procedure followed the defined protocol outlined in the methodology section to ensure consistency and transparency throughout the process. The resulting dataset was sufficiently robust to support statistical analysis and address this study's objectives.

Data Plan Discrepancies

An additional one-way ANOVA analysis was conducted to explore whether patient understanding, treatment self-efficacy, adherence to medication, and patient satisfaction differed across varying levels of PCC.

Sample Representation

The dataset initially consisted of 122 responses. Following the application of inclusion criteria, 63 respondents who identified as Bahamian were removed, leaving 59 participants. Respondents who were not Bahamian and had not visited a health care facility in the past year were still included, as their perspectives were still considered valid for this study. Four respondents who only completed the preliminary inclusionary questions were excluded, resulting in 55 participants, all of whom were confirmed to be 18 years or older. Partial responses were then managed. Six respondents who completed only demographic questions but did not answer any assessment tools were removed, leaving 49 participants. Five respondents completed the PRPCC but not the MMT or G-

MISS; their data were included to measure PCC. Two respondents completed the PRPCC and MCC but not the G-MISS, and their data were included to assess the impact of PCC on managing conditions, as this represented a separate variable. No statistical outliers were identified; however, three implausible responses were noted in which participants initially identified as Bahamian but later reported their nationality as “Israelite,” “Chinese,” and “Jamaican.” These responses were retained due to the possibility of dual citizenship. The data were then imported into SPSS, where a secondary review was conducted to detect potential errors, straight-lining, predictable response patterns, unrealistic entries, or partial responses; none were identified, and the sample remained at 49 participants. Missing data for the PRPCC were addressed using mean substitution, whereby missing values were replaced with the mean score for that item across all participants. Imputation was applied only to the PRPCC because the proportion of missing values was relatively small. Therefore, responses from participants who did not complete the other instruments were not assumed or imputed.

Results

Data Analysis

A comprehensive analysis of this study’s variables was conducted, including descriptive, comparative, and linear regression analyses. First, descriptive statistics were used to summarize the demographic characteristics of the participant sample. Next, one-way ANOVA models were used to examine differences in patient outcomes across levels of PCC. Finally, a bivariate regression, also known as simple linear regression, was used as a predictive model that determine the impact of PCC on patient outcomes. The

regression was used to explore the relationship between PCC and patient understanding, treatment self-efficacy, adherence to medication, and satisfaction. Assumptions of regression techniques state that both the independent and dependent variables must be metric-level variables (i.e., continuous) and that any extreme outliers must be identified and removed. Additionally, both variables should be normally distributed, and if a relationship exists between them, it should be linear in nature. To ensure the appropriate analysis was used, normality assumptions were assessed using histograms, linearity was assessed through scatterplots, Independence of errors was assessed using the Durbin-Watson test, and Homogeneity of variance was evaluated using Levene's test.

Residual diagnostics were complete for each model to evaluate the assumptions. Across all models, predicted values were centered appropriately around their means, and residuals were balanced with means near zero, indicating no systematic bias in prediction errors. Standardized and studentized residuals generally fell within acceptable ranges (± 3), with only a few cases approaching thresholds of concern, suggesting the absence of extreme outliers. Deleted residuals and studentized deleted residuals similarly remained within safe bounds, reinforcing the stability of the models. Influence statistics showed no evidence of problematic cases: Cook's distance values were consistently below 1, leverage values were modest, and Mahalanobis distances did not indicate severe multivariate outliers. Histograms and normal probability plots of standardized residuals approximated normal distributions, supporting the assumption of residual normality. Collectively, these diagnostics confirm that the regression assumptions were adequately met across all four models, with only minor deviations observed that did not compromise

the validity of the analyses. All analyses were performed at a 5% significance level using IBM SPSS Statistics Version 27 (Teixeria et al., 2024).

Descriptive Statistics

Table 1 presents the demographic characteristics of this study's participants. It is important to report these variables to contextualize the sample and ensure transparent interpretation of the findings. Diversity across age, gender, race, nationality, language, education, income, and health status underscores the relevance of cultural competence in varied patient populations. Additionally, including and reporting participants from multiple nationalities, racial and ethnic groups, socioeconomic backgrounds, and linguistic communities highlights this study's commitment to inclusivity by representing individuals who may otherwise be marginalized in health care research. The sample reflects the realities of the diverse patient population in The Bahamas and strengthens the applicability of findings to broader populations.

As seen in Table 1, a total of 49 participants were included in this study, comprising 61% female, 39% male, and 0 participants who identified as genderqueer, non-binary, or agender. Participants were grouped into six age categories: 18–24 ($n = 6$), 25–34 ($n = 31$), 35–44 ($n = 6$), 45–54 ($n = 4$), 55–64 ($n = 1$), and 65 – 74 ($n=1$). Regarding the nationality of the participants, the majority identified as “Other,” which included Sri Lankan, Israelite, Guyanese, Trinidadian, Tanzanian, British, Nigerian, Puerto Rican, Argentine, Kenyan, French, Japanese, Canadian, and Indian ($n = 18$; 36.7%). The remaining nationalities included Haitian ($n = 6$; 12.2%), followed by Jamaican ($n = 8$; 16.3%), American ($n = 10$; 20.4%), Filipino ($n = 4$; 8.2%), Chinese ($n =$

2; 4.1%), and Cuban ($n = 1$; 2.0%). The most common language spoken was English, followed by the multi-lingual option, Haitian Creole, and Jamaican Patois. The most common level of education was “Graduated from college” (40%), while the most common household income was between \$25,000 and \$49,999. Overall, participants reported their health as excellent (18.4%), good (51%), fair (26.5%), or poor (4.1%).

Table 1*Demographic Characteristics of Participants (N = 49)*

| Variable | Category | Frequency | Percentage |
|-------------|---|-----------|------------|
| Age | 18-24 | 6 | 12.2 |
| | 25-34 | 31 | 63.3 |
| | 35-44 | 6 | 12.2 |
| | 45-54 | 4 | 8.2 |
| | 55-64 | 1 | 2.0 |
| | 65-74 | 1 | 2.0 |
| Gender | Female | 30 | 61.2 |
| | Male | 19 | 38.8 |
| Race | Asian/Pacific Islander | 9 | 18.4 |
| | Black, Afro Caribbean, African American | 33 | 67.3 |
| | Hispanic or Latino | 2 | 4.1 |
| | Multiple Ethnicity/ Other | 4 | 8.2 |
| | White | 1 | 2.0 |
| Nationality | American | 10 | 20.4 |
| | Chinese | 2 | 4.1 |
| | Cuban | 1 | 2.0 |
| | Filipino | 4 | 8.2 |
| | Haitian | 6 | 12.2 |
| | Jamaican | 8 | 16.3 |
| | Other | 18 | 36.7 |
| Language | English | 30 | 61.2 |
| | Haitian Creole | 5 | 10.2 |
| | Jamaican Patios | 3 | 6.1 |
| | Chinese | 1 | 2.0 |
| | Spanish | 1 | 2.0 |
| | Other/Multiple | 8 | 16.3 |
| Education | Did Not Attend School | 1 | 2.0 |
| | Stopped at 11 th Grade | 1 | 2.0 |
| | Graduated from High School | 9 | 18.4 |
| | 1-3 years of College | 7 | 14.3 |
| | Some Graduate School | 1 | 2.0 |
| | Completed Graduate School | 9 | 18.4 |
| Income | \$0–24,999 | 9 | 18.4 |
| | \$25,000–49,999 | 14 | 28.6 |
| | \$50,000 – 74,999 | 12 | 24.5 |
| | \$75,000–99,999 | 5 | 10.2 |
| | \$100,000–124,999 | 3 | 6.1 |
| | \$125,000–149,999 | 1 | 2.0 |
| | \$150,000–174,999 | 1 | 2.0 |
| | \$200,000 and up | 1 | 2.0 |
| Health | Excellent | 9 | 18.4 |
| | Good | 25 | 51.0 |
| | Fair | 13 | 26.5 |
| | Poor | 2 | 4.1 |

Note. Demographic data reflecting reported participant characteristics

Statistical Analysis Findings

One-way ANOVA analyses were performed to determine differences in patient outcomes across levels of PCC. In this analysis, PRPCC scores, used to measure cultural competence, were classified into three levels: low (≤ 38), moderate (39–51), and high (≥ 52). Table 2 presents the statistics for the PRPCC total score, noting that across the sample, the mean PRPCC total score was 34.2 ($SD = 10.3$), corresponding to 52.6% of the maximum possible score, indicating that the overall perception of provider cultural competence was moderate. The median was 35.00 (moderate), and the mode was 19.00 (low). The distribution of scores ranged from 13.00 to 55.00, yielding a total range of 42 points. Skewness ($-.206$, $SE = .340$) and kurtosis (-0.662 , $SE = .668$) values indicated that the distribution was approximately normal, with only slight negative skewness and a somewhat flatter shape than a normal curve. These results suggest that the data are reasonably well-suited for parametric analyses, as the distribution does not deviate substantially from normality.

Table 2*Statistics for the PRPCC Total Score*

| Statistic | Value |
|----------------------------|-------|
| Valid Participants | 49.00 |
| Missing Participants | 0.00 |
| Mean | 34.22 |
| Median | 35.00 |
| Mode | 19.00 |
| Standard Deviation | 10.33 |
| Skewness | -0.21 |
| Standard Error of Skewness | 0.34 |
| Kurtosis | -0.66 |
| Standard Error of Kurtosis | 0.67 |
| Range | 42.00 |
| Minimum | 13.00 |
| Maximum | 55.00 |

Note. Statistics based on 49 valid participants; no data were missing. Multiple modes exist; the smallest value is shown. Skewness ($-.21$, $SE = .34$) and kurtosis ($-.66$, $SE = .67$).

Levene's statistics, presented in Table 3, were conducted for patient outcome variables and are presented to support analysis transparency. Results for patient understanding were significant ($p < .01$), indicating unequal variances across groups. Tests for treatment self-efficacy, adherence, and satisfaction were nonsignificant ($p < .05$), indicating homogeneity of variances.

Table 3*Levene's Test of Equality of Error Variances for Patient Outcomes*

| Outcome Variable | Test Basis | Levene Statistic | df 1 | df 2 | Sig. |
|---------------------------------|---------------------------------------|------------------|------|-------|------|
| Patient Understanding | Based on Mean | 6.076 | 2 | 46 | .005 |
| | Based on Median | 5.426 | 2 | 46 | .008 |
| | Based on Median (adjusted <i>df</i>) | 5.426 | 2 | 36.16 | .009 |
| | Based on Trimmed Mean | 5.986 | 2 | 46 | .005 |
| Patient Treatment Self-Efficacy | Based on Mean | 2.689 | 1 | 42 | .109 |
| | Based on Median | 2.903 | 1 | 42 | .096 |
| | Based on Median (adjusted <i>df</i>) | 2.903 | 1 | 40.92 | .096 |
| | Based on Trimmed Mean | 2.392 | 1 | 42 | .129 |
| Patient Adherence | Based on Mean | 0.162 | 1 | 39 | .690 |
| | Based on Median | 0.060 | 1 | 39 | .808 |
| | Based on Median (adjusted <i>df</i>) | 0.060 | 1 | 37.97 | .808 |
| | Based on Trimmed Mean | 0.049 | 1 | 39 | .829 |
| Patient Satisfaction | Based on Mean | 0.047 | 1 | 39 | .829 |
| | Based on Median | 0.107 | 1 | 39 | .745 |
| | Based on Median (adjusted <i>df</i>) | 0.107 | 1 | 37.96 | .745 |
| | Based on Trimmed Mean | 0.053 | 1 | 39 | .819 |

Note. Levene's test of equality of error variances

ANOVA Analyses

Table 4 summarizes the results of one-way ANOVA analyses examining differences in patient outcomes across levels of PCC. The analyses revealed a significant effect for patient understanding, $p < .001$, while treatment self-efficacy, medication adherence, and patient satisfaction did not show significant differences across competence levels ($p < .05$). Effect sizes and confidence intervals are reported for each outcome to provide a comprehensive view of the strength and precision of these findings.

Table 4*ANOVA Results and Effect Sizes for Patient Outcomes*

| Outcome Variable | <i>F</i> (<i>df</i> ₁ , <i>df</i> ₂) | <i>p</i> | η^2 | 95% CI η^2 |
|------------------------|--|----------|----------|-----------------|
| Patient Understanding | <i>F</i> (2,46) =28.46 | <.001 | .553 | .332 – .669 |
| Treatment Efficacy | <i>F</i> (2, 42) = 1.27 | .291 | .057 | .000- .200 |
| Adherence to Treatment | <i>F</i> (2, 39) = 0.04 | .964 | .002 | .000– .18 |
| Patient Satisfaction | <i>F</i> (2, 39) = 1.82 | .175 | .085 | .000- .247 |

Note. ANOVA results indicated a significant effect for patient understanding, $F(2, 46) = 28.46, p < .001, \eta^2 = .553$. No significant effects were observed for treatment efficacy, adherence, or satisfaction ($p < .05$). Effect sizes (η^2) and confidence intervals are reported for each outcome.

RQ1

Does patient understanding differ across levels of PCC? The output in Table 4 shows an *F* value of 28.464 with $p < .001$, well below the established threshold of $\alpha = .05$. Therefore, we reject the null hypothesis that there is no difference in patient understanding across levels of PCC. A post hoc test was performed to identify where the difference lies. To satisfy the assumption of ANOVA of equality of variance, Table 3 presents Levene's test, which presented an output of $p < .05$, which will be treated as a violation of equal variance. Therefore, we reject the null hypothesis that variances are equal, assuming the inequality of variance. The post hoc test revealed a significant difference between respondents who perceived low levels of cultural competence and those who perceived moderate levels of cultural competence ($p < .001$). Based on the output and the post hoc test, it is concluded that there is a difference in patient understanding based on levels of PCC. Therefore, we reject the null hypothesis as the

results revealed that respondents who perceived moderate levels of provider cultural competence reported higher levels of patient understanding than those who perceived low levels of cultural competence.

RQ2

Does treatment self-efficacy differ across levels of PCC? The output in Table 4 shows an F value of 1.272 with $p = .291$, which is greater than the established threshold of $\alpha = .05$. Therefore, we fail to reject the null hypothesis, concluding that there is no difference in patient treatment self-efficacy across levels of PCC. However, this result may be subject to Type II error due to limited statistical power, which could obscure real differences. Consequently, these results are interpreted cautiously, and replication with larger samples is encouraged.

RQ3

Does adherence to medication differ across levels of PCC? The output in Table 4 shows an F value of .037 with $p = .964$, which is greater than the established threshold of $\alpha = .05$. Therefore, we fail to reject the null hypothesis and conclude that there is no difference in patient adherence to medication across PCC levels. However, this result may be subject to Type II error due to limited statistical power, which could obscure real differences. Consequently, these results are interpreted cautiously, and replication with larger samples is encouraged.

RQ4

Does patient satisfaction differ across levels of PCC? The output presented in Table 4 shows an F value of 1.820 with $p = .175$, which is greater than the established

threshold of $\alpha = .05$. Therefore, we fail to reject the null hypothesis, concluding that there is no difference in patient satisfaction across the levels of PCC. However, this result may be subject to Type II error due to limited statistical power, which could obscure real differences. Consequently, these results are interpreted cautiously, and replication with larger samples is encouraged.

Bivariate Regression Models

Table 5 presents the results from the regression models examining whether PCC predicts patient outcomes. The results showed that cultural History-Taking was a significant predictor of patient understanding, explaining 35.2% of the variance and demonstrating a moderate to strong effect ($R = .605, p < .001$). Cultural competence also significantly predicted patient satisfaction, accounting for 16.2% of the variance with a moderate effect size ($R = .427, p < .005$). In contrast, treatment self-efficacy ($R = .178, p = .243$) and medication adherence ($R = .004, p = .981$) were not significantly predicted by cultural competence, with both models explaining minimal variance.

Table 5*Regression Results Predicting Patient Outcomes from PCC*

| Outcome Variable | <i>R</i> | <i>R</i> ² | Adj. <i>R</i> ² | <i>F</i> (<i>df</i> ₁ , <i>df</i> ₂) | <i>p</i> |
|---------------------------------|----------|-----------------------|----------------------------|--|----------|
| Patient Understanding | .605 | .366 | .352 | <i>F</i> (1,46) =27.10 | <.001 |
| Patient Treatment Self-Efficacy | .178 | .032 | .009 | <i>F</i> (1,43) =1.40 | .243 |
| Patient Adherence to Medication | .004 | .000 | -.025 | <i>F</i> (1,40) = .001 | .981 |
| Patient Satisfaction | .427 | .182 | .162 | <i>F</i> (1,39) =8.90 | .005 |

Note. Regression results in predicting patient outcomes from PCC. Patient understanding and satisfaction were significantly predicted. Neither patient treatment self-efficacy nor patient adherence to treatment were significantly predicted.

RQ5

Does perceived cultural History-Taking predict patients' understanding of their diagnosis/ conditions? The regression model, presented in Table 6, indicated a moderate to strong positive correlation ($R = .605$) between PRPCC History-Taking and Patient understanding, with $R^2 = .366$ and an adjusted $R^2 = .352$. After adjusting for the sample size, the model indicates that about 35.2% of the variance in Patient Understanding is explained by PRPCC History-Taking. The ANOVA output confirms that the model is statistically significant, with $F = 27.10$, $p < .001$, which is below the conventional threshold of $\alpha = .05$. In this model, when PRPCC History = 0, the predicted Patient Understanding is approximately 9.75 points. The regression coefficient ($B = 1.35$, $p < .001$) indicates that for every one-unit increase in PRPCC History, Patient Understanding increases by 1.35 points with a standardized coefficient ($B = .605$) indicating a

statistically significant moderate to strong effect size. Based on the results of this analysis, we reject the null hypothesis that there is no relationship between PRPCC History-Taking and Patient understanding. The regression model shows that PRPCC History-Taking is a statistically significant predictor of patient understanding.

Table 6

Regression Analysis Predicting Patient Understanding From PRPCC Total Score

| | Statistic | Value | | | | |
|---------------|------------------------|-------|--------|---------|-------|-------|
| Model Summary | R | .605 | | | | |
| | R^2 | .366 | | | | |
| | Adjusted R^2 | .352 | | | | |
| | Std. Error of Estimate | 6.29 | | | | |
| | Predictor | B | SE B | β | t | Sig |
| Coefficients | Constant | 9.751 | 2.844 | | 3.429 | .001 |
| | PRPCC History | 1.347 | .259 | .605 | 5.206 | <.001 |

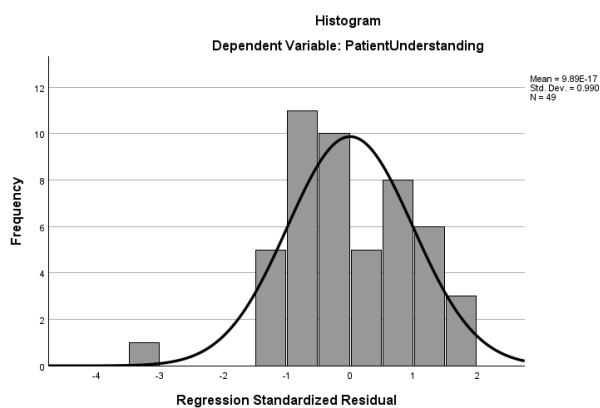
Note. Regression analysis indicated that PRPCC Total Score significantly predicted patient understanding.

The assumption checks presented in Figures 1 and 2 support the validity of the regression model. The histogram in Figure 1 shows that patient understanding scores are distributed approximately normally, with only a slight negative skew. The P–P plot in Figure 2 further confirms normality, as observed values closely align with the expected

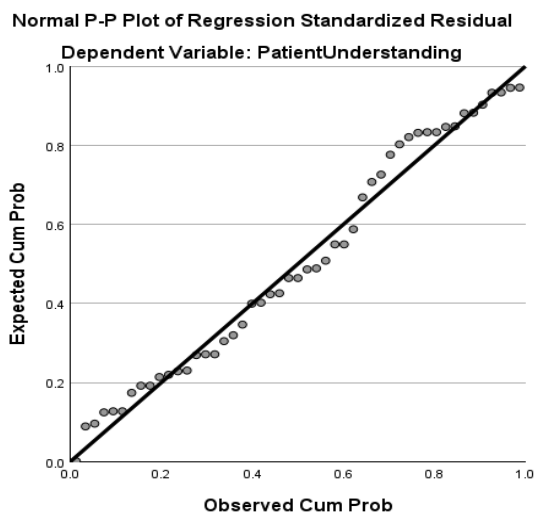
diagonal line. Figure 3 illustrates the predictive relationship between PRPCC scores and patient understanding. The scatterplot reveals a clear, positive linear trend, reinforcing the correlation between higher cultural competence scores and greater patient understanding. In all, these figures and the regression analysis provide converging evidence that cultural competence is a robust and meaningful predictor of patients' comprehension of their care.

Figure 1

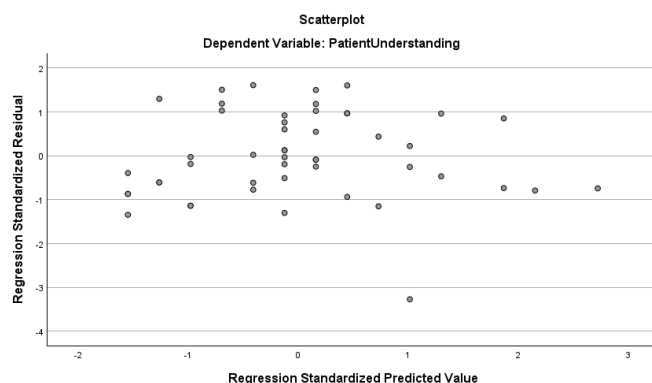
Patient Understanding Normality



Note. Histogram of patient understanding scores with normal curve overlay. The distribution appears approximately normal, with slight negative skew.

Figure 2*Patient Understanding P-P Plot*

Note. Normal probability plot of patient understanding scores. Observed values closely follow the expected diagonal line, supporting the assumption of normality.

Figure 3*Patient Understanding Scatterplot*

Note. Scatterplot of PRPCC Total Score predicting patient understanding. The positive linear trend indicates that higher PRPCC scores are associated with greater patient understanding.

RQ6

Does PCC in health care providers predict patients' treatment self-efficacy? The regression model, shown in Table 7, indicated a weak positive correlation ($R = .178$) between cultural competence (PRPCC Total Score) and Patient treatment self-efficacy. The results showed $R^2 = .032$ and adjusted $R^2 = .009$. After adjusting for the sample size, the model indicates that the explained variance in Patient Treatment Self-Efficacy drops to less than 1%. The ANOVA output indicates that the overall regression model is not statistically significant ($F = 1.403, p = .243$), suggesting that the PRPCC Total Score does not significantly predict Patient Treatment Efficacy in this dataset. In this model, the intercept is significant. When PRPCC Total Score = 0, Patient Treatment Self-Efficacy is about 14.11 points ($p < .001$). The regression coefficient ($B = .055, p = .243$) indicates

that for every one-unit increase in PRPCC Total Score, treatment efficacy only increases by .055 points, indicating a small effect size that is not statistically significant ($p < .05$). Based on the results of this analysis, we fail to reject the null hypothesis that there is no relationship between PRPCC total score and Patient treatment self-efficacy and conclude that PRPCC Total Score does not significantly predict Patient Treatment Efficacy.

Table 7

Regression Analysis Predicting Patient Treatment Self-Efficacy from PRPCC Total Score

| | | Statistic | Value | | | |
|---------------|------------------------|-----------|--------|---------|-------|-------|
| Model Summary | R | | .178 | | | |
| | R^2 | | .032 | | | |
| | Adjusted R^2 | | .009 | | | |
| | Std. Error of Estimate | | 3.13 | | | |
| Predictor | | B | SE B | β | t | Sig |
| Coefficients | Constant | 14.11 | 1.62 | | 8.69 | <.001 |
| | PRPCCTotalScore | .005 | .046 | .178 | 1.184 | .243 |

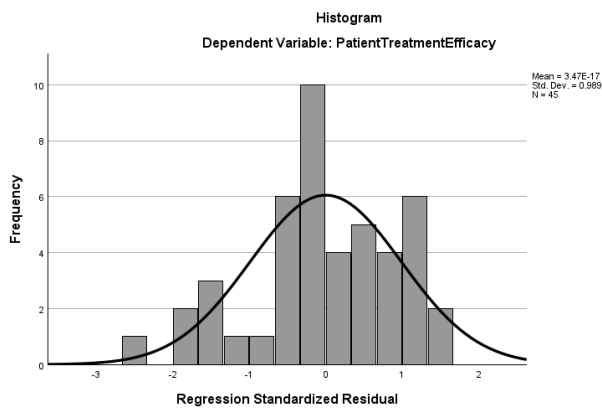
Note. Regression analysis indicated that PRPCC Total Score was not a significant predictor of patient treatment self-efficacy.

To confirm the assumptions of normality, Figure 4 presents a histogram showing that treatment efficacy scores were distributed approximately normally, with no evidence of substantial skew. Similarly, the P–P plot shown in Figure 5 demonstrates that the observed values closely follow the expected diagonal line, further supporting the

assumption of normality. Despite these appropriate distributional characteristics, the scatterplot in Figure 6 illustrates only a weak linear trend between PRPCC total scores and treatment efficacy. This visual pattern aligns with the regression results, which indicated that cultural competence was not a significant predictor of treatment efficacy. These figures suggest that, although the data met statistical assumptions, cultural competence did not explain variance in patients' perceived treatment efficacy in a meaningful way.

Figure 4

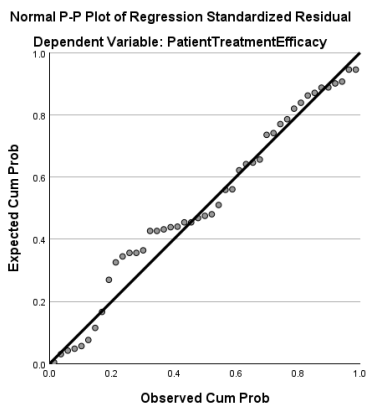
Patient Treatment Efficacy Normality



Note. Histogram of patient treatment efficacy scores with normal curve overlay. The distribution appears approximately normal, with no substantial skew.

Figure 5

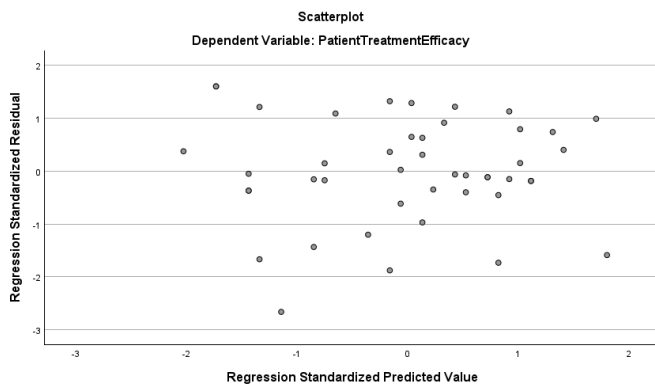
Patient Treatment Efficacy P-P Plot



Note. Normal probability plot of patient treatment efficacy scores. Observed values align closely with the expected diagonal, supporting the assumption of normality.

Figure 6

Patient Treatment Efficacy Scatterplot



Note. Scatterplot of PRPCC Total Score predicting patient treatment efficacy. The weak linear trend indicates PRPCC scores were not a significant predictor of treatment efficacy.

RQ7

Does PCC in health care providers predict patients' adherence to treatment plans and medication? The regression model depicted in Table 8 indicates essentially no correlation between cultural competence (PRPCC Total Score) and Patient Adherence to Treatment ($R = .004$). The results showed $R^2 = .000$, explaining 0% of the variance in adherence, and an adjusted $R^2 = -.025$. After adjusting for the sample size, the model performs worse than a baseline model. The ANOVA output indicates that the overall regression model is not statistically significant ($F = .001, p = .981$), suggesting that the PRPCC Total Score does not predict Patient Adherence to Treatment in this dataset. In this model, the intercept is significant. When PRPCC Total Score = 0, Patient Adherence to Treatment is about 6.14 ($p < .001$). The regression coefficient ($B = .004, p = .981$) indicates that for every one-unit increase in PRPCC Total Score, adherence changes by 0.000 points, indicating virtually no meaningful effect. Based on the results of this analysis, we fail to reject the null hypothesis that there is no relationship between the PRPCC Total Score and Patient Adherence to Treatment and conclude that this model explains none of the variance, indicating that the PRPCC Total Score has no measurable effect on Patient Adherence to Treatment.

Table 8

Regression Analysis Predicting Patient Adherence to Treatment From PRPCC Total Score

| | Statistic | Value | | | | |
|---------------|------------------------|-------|--------|---------|-------|-------|
| Model Summary | R | .004 | | | | |
| | R^2 | .000 | | | | |
| | Adjusted R^2 | -.025 | | | | |
| | Std. Error of Estimate | .57 | | | | |
| | Predictor | B | SE B | β | t | Sig |
| Coefficients | Constant | 6.14 | .33 | - | 18.42 | <.001 |
| | PRPCCTotalScore | 0.00 | .01 | .004 | .02 | .981 |

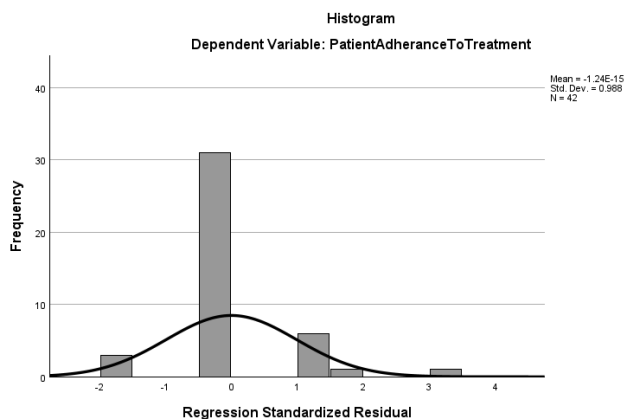
Note. Regression analysis indicated that PRPCC Total Score did not significantly predict patient adherence to treatment.

The normality assumptions for patient adherence to treatment were satisfied as seen in Figure 7, which presents a histogram showing that adherence scores were distributed approximately normally, with no evidence of substantial skew, and by the P–P plot in Figure 8, where observed values closely follow the expected diagonal line, further supporting the normality assumption. Despite these appropriate distributional characteristics, the scatterplot in Figure 9 reveals no meaningful linear relationship between PRPCC total scores and patient adherence. The data points are widely dispersed, suggesting that cultural competence did not significantly predict adherence to treatment.

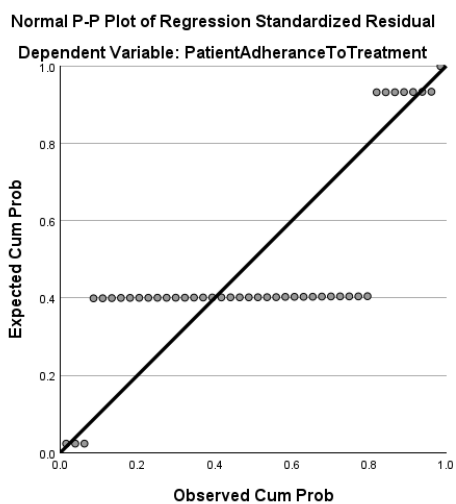
These figures confirm that, although the data met statistical assumptions, cultural competence was not a reliable predictor of patient adherence outcomes.

Figure 7

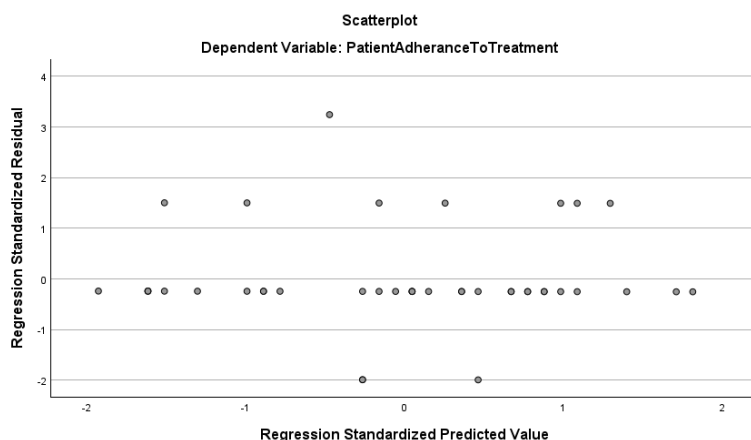
Patient Adherence to Treatment Normality



Note. Histogram of patient adherence scores with normal curve overlay. The distribution appears approximately normal, with no substantial skew

Figure 8*Patient Adherence P-P Plot*

Note. Normal probability plot of patient adherence scores. Observed values closely follow the expected diagonal, supporting the assumption of normality.

Figure 9*Patient Adherence Scatterplot*

Note. Scatterplot of PRPCC Total Score predicting patient adherence. No clear linear trend is evident, indicating PRPCC scores were not a significant predictor of adherence

RQ8

Does PCC in health care providers predict patient satisfaction? The regression model in Table 9 reveals a moderate positive correlation ($R = .427$) between cultural competence (PRPCC Total Score) and patient satisfaction, with $R^2 = .182$ and adjusted $R^2 = .162$. After adjusting for the sample size, the model indicates that 16.2% of the variance in patient satisfaction is explained by cultural competence. The ANOVA output confirms that the model is statistically significant ($F = 8.90, p < .005$), meeting the conventional $\alpha = .05$ threshold. In this model, the intercept is a significant predictor. When the PRPCC Total Score is 0, the predicted satisfaction is 36.9 points ($p < .001$). The regression coefficient ($B = .229, p < .005$) indicates that for every one-unit increase in PRPCC Total Score, patient satisfaction increases by 0.23 points, with a standardized coefficient ($B = .427$) indicating a statistically significant moderate effect size. Based on

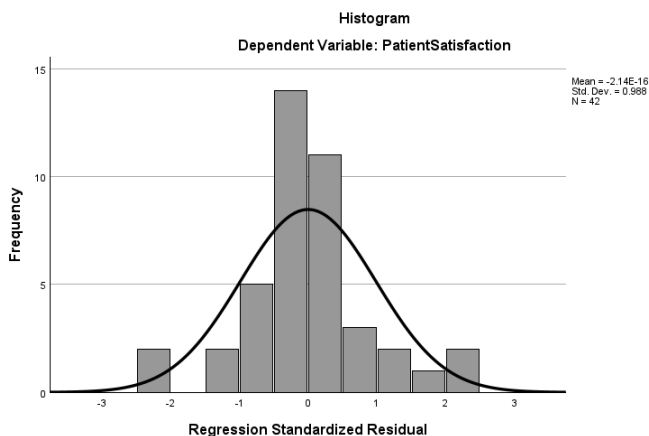
the results of this analysis, we reject the null hypothesis that there is no relationship between the PRPCC Total Score and Patient Satisfaction and conclude that cultural competence (as measured by the PRPCC Total Score) is a statistically significant predictor of patient satisfaction.

Table 9

Regression Analysis Predicting Patient Satisfaction From PRPCC Total Score

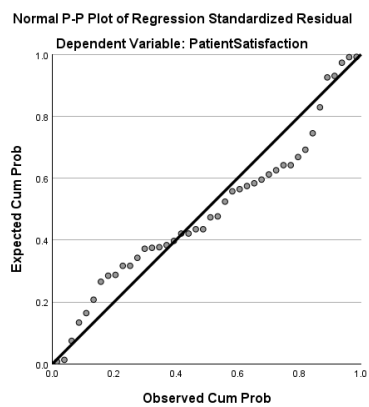
| | Statistic | Value | | | | |
|---------------|------------------------|-------|--------|---------|-------|-------|
| Model Summary | R | .427 | | | | |
| | R^2 | .182 | | | | |
| | Adjusted R^2 | .162 | | | | |
| | Std. Error of Estimate | 4.72 | | | | |
| <hr/> | | | | | | |
| | Predictor | B | SE B | β | t | Sig |
| Coefficients | Constant | 36.9 | 2.75 | - | 13.44 | <.001 |
| | PRPCCTotalScore | .229 | .077 | .427 | 2.98 | .005 |

Note. Regression analysis indicated that PRPCC Total Score significantly predicted patient satisfaction, $R = .427$, $R^2 = .182$, Adjusted $R^2 = .162$, $p < .005$. The model explained 16.2% of the variance, with PRPCC Total Score emerging as a positive predictor of satisfaction ($\beta = .427$).

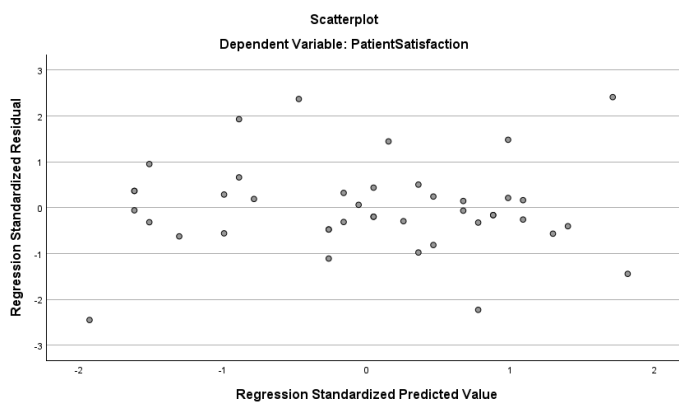
Figure 10*Patient Satisfaction Normality*

Note. Histogram of patient satisfaction scores with normal curve overlay. The distribution appears approximately normal, with no substantial skew.

The assumptions of normality were met, as shown in Figure 10, which presents a histogram indicating that the satisfaction scores were approximately normally distributed, with no evidence of substantial skew. Similarly, the P–P plot in Figure 11 shows observed values that closely align with the expected diagonal line, further supporting the assumption of normality. Finally, the scatterplot in Figure 12 illustrates the predictive relationship between PRPCC total scores and patient satisfaction. A positive linear trend is shown, indicating that higher cultural competence scores were associated with greater patient satisfaction.

Figure 11*Patient Satisfaction P-P Plot*

Note. Normal probability plot of patient satisfaction scores. Observed values align closely with the expected diagonal, supporting the assumption of normality.

Figure 12*Patient Satisfaction Scatterplot*

Note. Scatterplot of PRPCC Total Score predicting patient satisfaction. A positive linear trend is evident, indicating PRPCC scores significantly predicted satisfaction.

To sum up the results discussed, Table 10 presents a comparative interpretation of patient outcomes predicted by cultural competence, as measured by the PRPCC total score and the PRPCC History subscale. The results highlight meaningful differences in the extent to which cultural competence influences the four patient outcomes.

Table 10

Comparative Interpretation of Outcomes Predicted by Cultural Competence (PRPCC Total Score)

| Outcome Variable | Predictor | R/R^2 (Variance Explained) | p -value | Interpretation |
|----------------------------|-------------------|--------------------------------|------------|--|
| Patient Understanding | PRPCC History | $R = .605, R^2 = .366$ (36.6%) | $p < .001$ | The History subscale is a moderate-to-strong predictor of understanding, showing that exploring patients' cultural history meaningfully improves patient understanding |
| Patient Treatment Efficacy | PRPCC Total Score | $R = .178, R^2 = .032$ (3.2%) | $p = .243$ | Cultural competence does not predict treatment efficacy. The relationship is weak and non-significant. |
| Patient Adherence | PRPCC Total Score | $R = .004, R^2 = .000$ (0%) | $p = .981$ | Cultural competence has no relationship with adherence. The model explains none of the variance. |
| Patient Satisfaction | PRPCC Total Score | $R = .427, R^2 = .182$ (18.2%) | $p < .005$ | Cultural competence is a moderate, significant positive predictor of satisfaction. Patients report higher satisfaction when providers score higher in competence. |

Note. Cultural competence significantly predicted patient understanding and satisfaction, but not treatment efficacy or adherence.

Summary

This study investigated the impact of PCC among health care providers in The Bahamas on patient outcomes within culturally diverse populations. All ethical standards established by Walden University's IRB were followed, ensuring participant anonymity and protection. Data collection occurred over the course of 1 month, yielding a final sample of 49 participants. Although the recommended sample size was 55, the slightly smaller sample necessitates caution when interpreting the findings.

Minor discrepancies between the proposed and completed data analysis plans were identified and appropriately addressed. This study used ANOVA and bivariate linear regression models to test the hypotheses across eight research questions. The results revealed varying effects of cultural competence on patient outcomes. Specifically, the ANOVA post hoc analyses showed that respondents who perceived moderate cultural competence reported significantly greater understanding than those who perceived low competence ($p < .001$). However, results were nonsignificant for treatment self-efficacy ($p = .291$), medication adherence ($p = .964$), and patient satisfaction ($p = .175$).

The regression analyses showed that cultural History-Taking was a significant predictor of Patient Understanding ($p < .001$), explaining 35.2% of the variance, and that cultural competence was a significant predictor of Patient Satisfaction ($p < .005$), accounting for 16.2% of the variance. This suggests that higher competence scores are strongly associated with improved patient understanding and satisfaction. In contrast, cultural competence was not a significant predictor of Treatment Efficacy ($p = .243$) or Patient Adherence ($p = .981$), suggesting no meaningful influence on these outcomes, and

that provider cultural competence has more of an impact on patients' perceptions of care (understanding and satisfaction) rather than directly affecting their behaviors or clinical outcomes (adherence to medication and treatment self-efficacy).

Chapter 5: Discussion, Conclusions, and Recommendations

Purpose of the Study

The purpose of this study was to determine the relationship between the PCC of health care providers in The Bahamas and the health outcomes of the non-Bahamian patients they treat.

Nature of the Study

The nature of this study was a causal-comparative design to investigate the potential relationship between the PCC of health care providers and patient outcomes without manipulating either variable.

Rationale

This study was conducted because, although the importance and necessity of cultural competency in health care were well established in the literature, there was limited evidence of its direct impact on patient outcomes. The literature suggested that barriers to health care access, caused by a lack of cultural competence, can lead to poorer patient outcomes and significant health disparities in that population (see Romain, 2025).

Interpretation of the Findings

Confirmations

The findings of this study contribute to the broader body of knowledge on cultural competence and its impact on patient outcomes and care. The most significant finding indicated that patients' understanding improves substantially when providers score higher on the History-Taking subscale of cultural competence. This suggests that when providers explore and respect their patients' cultures, patients are more likely to

understand the care they receive. Although the PRPCC History subscale did not fully explain patient understanding, accounting for approximately 36% of the variance, its representation was still significant. These results emphasize that incorporating culturally congruent care during medical interviews has a strong and significant impact on comprehension.

This study also found that patients report greater satisfaction when providers score higher in overall cultural competence. Although satisfaction can be influenced by multiple factors, including communication style, treatment outcomes, and medical environment, cultural competence accounts for a notable portion of the variance. Regression analysis revealed that PRPCC Total Score significantly predicted patient satisfaction, explaining 16.2% of the variance. These findings suggest that perceived cultural competence has a significant impact on patient satisfaction, providing empirical support that culturally congruent care is essential to enhance satisfaction among culturally diverse patients.

Disconfirming Findings

The regression analyses did not support the hypothesis that cultural competence predicts all patient outcomes. The regression model used to determine whether perceived cultural competence predicted patient treatment self-efficacy revealed that cultural competence was not a significant predictor, accounting for only 0.09% of the variance and making no meaningful or direct contribution to treatment self-efficacy. Similarly, the regression model used to determine whether cultural competence predicted patient adherence to treatment also indicated no significant relationship, with the model

accounting for none of the variance, indicating cultural competence was not associated with changes in adherence behaviors. Consequently, these findings disconfirm the stated hypotheses that cultural competence predicts all patient outcomes. Instead, these findings suggest that cultural competence has a more pronounced impact on interpersonal outcomes, such as understanding and satisfaction, rather than behavioral or clinical outcomes, including treatment self-efficacy or adherence to medication.

Contribution to the Literature

The current study contributes to the growing body of research on cultural competence in health care, while pioneering research on cultural competence in health care in the Caribbean region. It is the first empirical examination of the relationship between cultural competence and the delivery of culturally congruent care within the health care setting of The Bahamas, and the first study of its kind conducted within the wider Caribbean region, a distinctly multicultural context. Within this context, this study expands the scope of cultural competence research and offers new knowledge beyond North American, Asian, and European settings.

Next, this study also extends existing knowledge on cultural competence by clarifying its impact on patient outcomes. The findings demonstrate that provider cultural competence significantly predicts patient understanding and satisfaction but does not measurably impact treatment self-efficacy or adherence. This distinction is important because much of the existing literature has emphasized cultural competence as a broad determinant of patient outcomes without differentiating between interpersonal, behavioral, and clinical domains.

Regarding the theoretical framework, this study demonstrates that cultural competence primarily enhances patient understanding and satisfaction, refining the TMCC. The ability to recognize cultural differences through awareness, understand those differences through knowledge, and communicate in a culturally responsive way through skill has been shown to strongly improve patient understanding when providers use cultural History-Taking skills and moderately improve patient satisfaction when providers show awareness, respect, and empathy. This information adds clarity within the TMCC framework and provides practical guidance for health care training and policy, emphasizing the need to strengthen providers' awareness, knowledge, and communication skills to improve patient comprehension and satisfaction across diverse cultural contexts.

Limitations and Recommendations

Despite the valuable insights provided by this study, some limitations must be acknowledged. Convenience sampling was chosen to efficiently access possible vulnerable participants within this study's timeframe and resource constraints. However, the findings offer meaningful insights despite limited generalizability. Although this sampling method may not represent all patient populations, the use of the three validated survey instruments and a consistent data collection protocol ensured strong internal validity. Consequently, the results reflect patterns and perceptions within the sampled group and serve as a valuable foundation for future research. Additionally, the sample size for this study (49) was smaller than the recommended threshold for conducting the analyses (55). This limitation may reduce the statistical power of the analysis, increase

the likelihood of Type II errors, and limit the ability to detect subtle differences between groups. To enhance generalizability, subsequent studies should replicate the methodology of this study using randomized or stratified sampling strategies to recruit a more diverse sample, thereby improving the applicability of these findings across different cultural contexts.

Another limitation of this study is that, although it focused on cultural competence and addressing barriers to access and effective communication, the survey was only offered in English. It should be noted that cultural, and therefore cultural competence, is inherently dependent on context. Future research should tailor its methodologies to the specific environment and demographic groups, including adapting language and framing to align with the cultural norms of the target population (Alizadeh & Chavan, 2023; Jongen et al., 2023). More specifically, focusing on producing psychometrics for translated versions of each assessment tool in the alternative languages appropriate to their context.

Despite these constraints, rigorous data collection procedures were employed to ensure the reliability of the results. Both recommendations would enable future researchers to expand their sample pool and include a more diverse range of experiences and perspectives, resulting in a more accurate representation of reality, thereby validating these preliminary findings and strengthening external validity.

Implications

Methodological

The results from this study present three important methodological implications for exploring cultural competence within a health care setting. First, this study presents an alternative strategy for measuring cultural competence. As mentioned in the literature review, self-report measures are also the most commonly used tool for assessing cultural competence (Chu et al., 2022), which can lead to SDB where participants overreport positive attributes and underreport negative ones (Furr, 2011; Grimm, 2010; Krosnick, 1999), threatening validity. Instead, this study utilized patient-reported measures to assess the PCC of their health care providers, which provides external validation of provider behaviors, strengthening construct validity. Additionally, self-report measures are prone to eliciting the behavior that the respondent intends to or believes they display (Grimm, 2010); however, patient reports are more reflective of reality and what is actually demonstrated, aligning measurement with real-world outcomes. By focusing on patient reports and perspectives, this study highlights and encourages the value of using patient-centered methodologies to provide more authentic insights into how cultural competence affects patient outcomes.

Another methodological implication is the potential to expand this study to use a mixed-methods approach. While quantitative methods are occasionally used in research to study cultural competence and cultural phenomena, more often than not, researchers tend to use qualitative methods, such as interviews, focus groups, and ethnography, to capture a deeper, more nuanced, and subjective experience from their participants (Fort et

al., 2025). As such, combining the breadth of quantitative research with the depth of qualitative research can enrich future studies to improve generalizability, trustworthiness, validity, reliability, and methodological rigor (Fort et al., 2025; Jordan & Hall, 2025).

Finally, there are also implications to expand this study from a causal-comparative design to an intervention study. The observed relationship between PCC and patient outcomes provides evidence that having a health care provider who appears to have cultural awareness, knowledge, and skills can improve understanding and satisfaction. However, the methodological framework of this study can also support the use of experimental or quasi-experimental designs to evaluate cultural competency training programs in a multicultural health care setting. The design also lends itself to longitudinal studies, as they hold value in assessing the sustained impact of cultural competency interventions over time.

Theoretical

When considering theoretical implications, this contributes to the practical application of the Tripartite Model. By demonstrating that PCC improves patient understanding and satisfaction through cultural awareness, knowledge, and skill, it reinforces the assertion that culturally competent care is a multidimensional concept that must not only be practiced by the provider but also recognized by the patients in order to influence outcomes.

Empirical

Regarding the empirical implications, this study provided empirical evidence linking cultural competence to patient understanding and satisfaction, which can serve as

a rubric for investigating other patient outcomes, including quality of life, readmission rates, and mortality (Arora et al., 2024; Churruca et al., 2021).

The current study also validates patients' perception of provider cultural competence as a measurable construct. By focusing on the patients, this study was able to highlight the value of subjective experience as valid and measurable. As noted, future studies should continue to prioritize patient-reported data when evaluating provider cultural competence and developing, implementing, and monitoring training programs.

Implications for Positive Social Change

The findings of this study provide evidence of the impact of culturally competent health care providers not only on individual patients but also on broader social systems in The Bahamas. By creating a welcoming environment that fosters inclusivity, respect, and responsive care, the cultural competence of health care providers contributes to positive social change at multiple levels.

At the individual level, culturally competent care facilitates a deeper understanding of diagnoses and treatment plans, as well as satisfaction, which can result in enhanced health literacy and increased trust in health care providers. Patients who feel understood, connected, and respected can be empowered to be more collaborative in their health care, taking on a more active role in their health decisions, behaviors, and outcomes (Alizadeh & Chavan, 2023).

At a familial level, when health care providers engage patients in culturally sensitive ways, their families are more likely to participate in their care processes. This

strengthens patient support systems, improves family communication about health, and encourages a sense of shared responsibility for patient health. (Cipta et al., 2024).

Regarding positive social change at the organizational level, cultural competence and a supportive work environment are mutually reinforcing as they work in tandem to support culturally congruent care. Providers who possess high levels of cultural knowledge, awareness, and skills, along with managerial support, collectively contribute to better outcomes for diverse patient populations and a reduction in health disparities in the care they provide. As a result, the organizations would be better equipped to manage and serve their culturally diverse populations (Teixeria et al., 2024).

Finally, at a societal/policy level, the widespread adoption of cultural competence can reduce systemic health inequities and promote social justice in health care delivery. Findings from this study can inform public health policy, guide the development of national training standards, and support legislation aimed at enhancing access to and improving the quality of care for marginalized and minority communities (Baker, 2024).

Recommendations for Practice

This study emphasizes the significance of cultural competence in a health care setting on interpersonal outcomes that incorporate all three dimensions of the Tripartite Model. By incorporating cultural awareness, knowledge, and skills, health care institutions and providers are better equipped to address implicit biases, facilitate patient support and collaboration, and create a more inclusive and understanding environment through cross-cultural communication. To achieve this goal, several actionable steps can be taken.

First, cultural competence cannot be treated as a one-time training requirement. Rather, it should be ongoing professional development that requires commitment and continuous learning. As mentioned, cultural competence is a dynamic, developmental process that is also inherently iterative and cyclical (Pedrero et al., 2020). As such, regular and continuous training initiatives, including seminars, simulation-based and interdisciplinary programs, and reflective practice sessions, can be implemented to ensure that health care providers remain responsive to patients' evolving needs and improve the quality of care provided to migrant populations (Theodosopoulos et al., 2024).

Next, implementing training initiatives that incorporate feedback mechanisms can help assess how patients perceive the competence of their providers. Patient-reported measures can be incorporated into routine quality assessments, enabling culturally diverse patients to help identify gaps in provider communication and guide targeted improvements, thereby closing the loop between theory and practice (Adeghe et al., 2024; Nikolovski et al., 2025). Moreover, health care providers can conclude each interaction by ensuring that the patient and, if necessary, their social support understand both the interaction and the treatment/intervention plan, so they can respond effectively to the patient's needs (Stubbe, 2020).

Third, health care organizations must actively foster and promote inclusivity to ensure that patients feel comfortable, respected, and understood. Strategies can include using multilingual signage and messaging, providing culturally tailored health materials, mandated and financially supported training initiatives, reasonable and responsible community engagement and collaboration (Theodosopoulos et al., 2024), and recruiting

and retaining diverse staff who can respond effectively to the diverse cultural and linguistic needs of their patients (Hajighasemi, 2023). Additionally, offering interpreter services can facilitate more accurate communication of patients' health histories, family dynamics, goals, expectations, and culturally grounded medical practices or remedies they may have used in the past (Stubbe, 2020).

Finally, health care organizations should align their organizational policies with more equitable goals. Administrators should ensure that their policies, procedures, and strategic plans explicitly support cultural competence and health equity. This alignment can include inclusive hiring practices (Hajighasemi, 2023), assistance with navigating unfamiliar health care settings, provision of necessary information, and responsible community engagement (Theodosopoulos et al., 2024). Research also recommends considering and revising disparaging immigration laws that create structural barriers to accessing proper care, and advocating for policy reform that addresses discriminatory practices to expand access to marginalized populations (Stubbe, 2020; Theodosopoulos et al., 2024).

Conclusion

The current study employed a research design, theoretical framework, and purpose appropriate for addressing the identified gaps in the literature and answering the research questions. The results of this study provided statistically significant evidence that perceived cultural competence improves understanding and satisfaction, supporting the notion that culturally competent care can mitigate interpersonal barriers among culturally diverse populations. An important distinction emerged from the results, which

suggests that cultural competence has a greater impact on interpersonal patient outcomes, including understanding and satisfaction, rather than on behavior-based outcomes like medication adherence or clinical outcomes like treatment self-efficacy. This distinction aligns with the foundation of the TMCC, which predicts that cultural competence enhances the quality of the patient-provider relationship and communication, thereby improving how patients feel and understand.

Based on these results and the literature, it is recommended that future research continue to develop and improve this design by reviewing and considering its methodological, theoretical, and empirical implications. This study also provides recommendations for practice that can be implemented immediately to improve patient outcomes, while providing relief and support at the individual, family, organizational, and societal/policy levels. In all, this study serves as a detailed rubric for researchers and stakeholders to follow, providing evidence that provider cultural competence can be used as a strategic tool to enhance public health and promote health equity by improving patient understanding and satisfaction.

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Appendix: Assessment Tools

Website link: [Patient-Reported Provider Cultural Competency Scale - EBSCO](#)

Patient-Reported Provider Cultural Competency Scale
PRPCC

Items

1. My doctor asks me why I think I got sick.
2. My doctor talks with me about medications I may use other than the ones he or she prescribes.
3. My doctor talks with me about traditional healing remedies I may use.
4. My doctor asks if I seek advice from other family members and friends in making decisions about my health care.
5. When discussing diagnosis and treatment related to my condition, my doctor asks if I would like to include family members in the discussion.
6. My doctor takes time to help me understand possible side effects of the medications he or she prescribes for me.
7. My doctor informs me of the resources in my local community where I can find help.
8. My doctor asks if I understand his or her instructions, and if I do not, repeats them when necessary.
9. My doctor asks if I have other questions or concerns before I leave the office.
10. My doctor helps me to ask questions about my condition and treatment.
11. My doctor helps me answer the questions he or she asks.
12. My doctor encourages me to stop him or her when I am confused.
13. My doctor helps me make decisions about my treatment.

Note. Scored as 1 = never, 2 = seldom, 3 = sometimes, 4 = usually, 5 = always. Two-factor structure: history-taking (items 1 to 5) and explaining (items 6 to 13).

The MMC

Website link: [Please respond to each item by checking one box per row](#)

PROMIS® Item Bank v1.0 – General Self Efficacy – Short Form 4a

General Self-Efficacy – Short Form 4a

Please respond to each item by marking one box per row.

For the next set of questions, please read each sentence and rate your level of confidence in managing various situations, problems, and events.

| Rate your level of confidence. | | I am not at all confident | I am a little confident | I am somewhat confident | I am quite confident | I am very confident |
|---------------------------------------|---|--|--|--|---------------------------------|--------------------------------|
| GSE11_C | I can manage to solve difficult problems if I try hard enough. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| GSE14_C | I am confident that I could deal efficiently with unexpected events. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| GSE19_C | If I am in trouble, I can think of a solution. | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| GSE20_C | I can handle whatever comes my way..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

The G-Miss 16

Website link: [Table 2 | Validation of the generic medical interview satisfaction scale: the G-MISS questionnaire | Health and Quality of Life Outcomes](#)

Table 2 Principal Component Analysis (Varimax rotation) and DIF of the G-MISS

From: **Validation of the generic medical interview satisfaction scale: the G-MISS questionnaire**

| Item n° | Relief | Communication | Compliance | DIF | Delta R2 |
|---------|--------------|---------------|--------------|-------------|----------|
| Q3 | 0.840 | | | 0,43 | |
| Q4 | 0.803 | | | 0,93 | |
| Q2 | 0.767 | | | 0,31 | |
| Q6 | 0.669 | | | 0,00 | 0,01 |
| Q25 | 0.668 | | | 0,71 | |
| Q1 | 0.639 | | | 0,13 | |
| Q24 | 0.600 | | | 0,50 | |
| Q19 | 0.560 | | | 0,00 | 0,01 |
| Q13 | | 0.697 | | 0,12 | |
| Q12 | | 0.679 | | 0,11 | |
| Q11 | | 0.669 | | 0,02 | 0,00 |
| Q15 | | 0.627 | | 0,03 | 0,00 |
| Q9 | | 0.607 | | 0,07 | |
| Q8 | | 0.561 | | 0,35 | |
| Q28 | | | 0.915 | 0,00 | 0,01 |
| Q26 | | | 0.902 | 0,01 | 0,00 |

For clarity, factor loadings below 0.3 are not reported in the table. For each column bold numbers are the factor loadings of the items participating in the computation of the corresponding dimension. DIF are expressed as Chi2-*p*-value
G-MISS Generic-Medical Interview Satisfaction Scale