Addressing Health Illiteracy in the Hispanic Community – A Call to Action: An Integrative Review

Submitted to the

Faculty of Liberty University

In partial fulfillment of

The requirements for the degree

Of Doctor of Nursing Practice

By

Sarah Akers Dersch

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Lynchburg, VA

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Abstract

The United States Hispanic population is rapidly growing; however, existing healthcare endeavors are insufficiently accommodating this expansion. This demographic is linked to multiple serious health problems, including obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease. In order to improve health outcomes within this community, interventions, such as health literacy screening, need to be further explored to identify current insufficiencies and help this population overcome these health challenges. This integrative review seeks to determine the effectiveness of current health literacy screening tools among native Spanish speakers in the U.S. This review seeks to amalgamate data from various studies to demonstrate common health problems and barriers experienced by the Hispanic community, the benefit of health literacy for positive client outcomes, and what health literacy screening tools are presently available. This review will be of benefit by further delving into the existing health literacy screening resources, determining which are successful/unsuccessful, and explaining why/why not. Dissemination of this discerned information will help to highlight the benefit of current screening and direct continued research on this topic, particularly for subsequent interventions.

Key words: health literacy, health illiteracy, Spanish, Hispanic, and health literacy screening tool

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List of Abbreviations

Advanced Practice Nurse (APN)

Advanced Practice Registered Nurse (APRN)

Cardiovascular Disease (CVD)

Centers for Disease Control and Prevention (CDC)

Collaborative Institutional Training Initiative (CITI)

Communication-Persuasion Model (CPM)

Doctor of Nursing Practice (DNP)

Emergency Department (ED)

Health Illiteracy (HI)

Health Literacy (HL)

Hypertension (HTN)

Institutional Review Board (IRB)

Integrative Review (IR)

Medical Doctor (MD)

National Culturally and Linguistically Appropriate Services (CLAS)

National Health Education Standards (NHES)

New York City (NYC)

Nurse Practitioner (NP)

Office of Disease Prevention and Health Promotion (ODPHP)

Papanicolaou (PAP)

Plain Language Action and Information Network (PLAIN)

Posttraumatic Stress Disorder (PTSD)

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)

Quality Initiative (QI)

Randomized Controlled Trial (RCT)

Social Determinants of Health (SDOH)

Strategy Instruction on the Web for English Learners (SWELL)

The U.S. Department of Health and Human Services (HHS)

Type Two Diabetes Mellitus (T2DM)

United States (U.S.)

World Health Organization (WHO)

SECTION ONE: FORMULATING THE REVIEW QUESTION

Introduction

Health literacy (HL) is an essential component in the provision of beneficent, non-maleficent, just, autonomous care. Ensuring this ethical standard will lead to safer, more quality healthcare and better client outcomes, as health illiteracy (HI) is highly associated with unhealth (Varkey, 2021). According to Merriam-Webster (n.d.), unhealth is defined as a "lack of health or vigor: illness, infirmity" (p. 1). Many initiatives have been implemented in an attempt to address the serious issue of HI; however, it is unfortunately still a substantial problem, especially within disadvantaged communities with less education, lower socioeconomic statuses, and fewer resources. The Hispanic community is particularly at risk for HI due to the above obstacles, in addition to language barriers, statistically poorer health than Caucasians, and immigration challenges, among many others. Health illiteracy among native Spanish speakers is an expanding problem that necessitates swift, evidence-based intervention (Hickey et al., 2018).

There is a considerable amount of literature that demonstrates the substantial problem of HI among non-native English speakers within the United States (U.S.). Approximately 80 million adults in the U.S. are associated with inadequate HL. There is likewise extensive literature that has correlated HI to worse rates of hospitalization, diseases, and mortality. Health illiterate individuals are linked to increased healthcare system burdens and expenses, as many within the Hispanic community statistically and inappropriately use services like the emergency department (ED) as opposed to primary care for routine healthcare (Hickey et al., 2018). There is a myriad of sources that have linked specific health problems, such as obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease with the Hispanic demographic. Particularly, the Centers for Disease Control and Prevention (CDC) reports that approximately

50% of Hispanic persons are more likely to die from diabetes and liver disease than their Caucasian counterparts; heart disease and cancer are the two main causes of death; 24% more inadequately managed elevated blood pressure; 23% more obesity; and 28% less colorectal screening (CDC, 2015). The majority of these diseases/conditions are greatly affected by modifiable risk factors and could be avoided, convalesced, or corrected with lifestyle changes (Bellou et al., 2018). This integrative review (IR) aimed to demonstrate the correlation between health and health literacy, distinctively for the Hispanic community, by exhibiting current data regarding the significance of both health and health literacy, emphasizing health/healthcare impediments for Hispanic persons, ascertaining available HL screening resources, and recognizing opportunities for continued research and intervention.

Background

Before the need for health literacy can be sufficiently understood, the concept of health must be fully appreciated. Health is a multifaceted construct, consisting of physical, psychosocial, and spiritual elements. Although there are countless differing definitions for the concept of health, the majority of resources concur that its impact upon the daily lives of people everywhere cannot be overemphasized. Regardless of age, gender/sexual orientation, race/ethnicity, socioeconomic status, and education/profession, health is an incredibly vital aspect of one's life and considerably contributes to a worldview of personal wellbeing and success (Svalastog et al., 2017).

The World Health Organization (WHO) defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization, 2022, p. 1). The WHO champions this comprehensive concept of wellbeing as a human right, that each human life should possess the ability to exist without limitation. There has

been significant criticism due to the lack of measurability of this definition. The WHO has amended this defined concept numerous times throughout the years such as describing health as "the ability to maintain homeostasis and recover from insults" (Otorkpa, 2022, para. 3). Unfortunately, as important as health is, its subjectivity, not only in definition but also concerning its countless approaches, produces substantial obstacles in its achievement.

Health is a complex yet essential topic, one worth striving to better understand in order to help people worldwide. There are various factors that influence one's wellbeing: non-modifiable factors such as age, gender, race/ethnicity, and genetics and modifiable factors such as diet, substance use, physical activity, and extracurricular activities. There are also several factors that do not clearly reside in either category such as education, job/income, social support, and environment. These factors play varying roles in the health of every individual, making the concept of health challenging for researchers and providers to accurately delineate (Bellou et al., 2018).

The delineation of health is further complicated yet inarguably enhanced by the growing importance being placed on holism. Holistic health encompasses the health and wellbeing of the whole person. Holistic care considers not only physical health but also psychosocial and spiritual. Holism supports a profound, inter-reliant relationship among every element that makes a person whole. The field of nursing has long embodied a philosophy of holism, affording advanced practice nurses (APNs) uniquely impactful and crucial opportunities to provide evidence-based, well-rounded, comprehensive care to all clients regardless of religion and culture. (Jasemi et al., 2017; Shelly & Miller, 2006).

The concept of health within the Hispanic culture is typically viewed through a religious lens as the majority of Hispanic persons identify as Catholic/Christian. They believe that God is

the giver of health and life; therefore, He can likewise cause poor health as well as end life. As the spiritual component of health is meaningful to this community, Hispanic persons often first turn to prayer when faced with health challenges. The Hispanic community also possesses numerous cultural traditions that are believed to aid in healing – some helpful, such as garlic for cough; some harmful, such as lead/mercury oxides for teething. Culturally, preventative health in not typically a priority, as the Hispanic community often defers to God's will for the indefinite; minor illnesses are often treated with traditional methods. This client population typically delays seeking modern healthcare treatment until their illness has significantly progressed or is considered critical. An understanding of cultural customs can help researchers and providers coalesce evidence-based research and practice, cultural sensitivity/competence, and personalization of care all together in order to help improve health literacy and ultimately client outcomes within this community (The Harvard Kennedy School Journal of Hispanic Policy, 2017).

Changes in Healthcare

In recent years, the focus of healthcare has transformed in multiple capacities. Firstly, the emphasis of healthcare services has shifted from more of a retroactive approach to a proactive one. Instead of basing research and care on the treatment of disease, many healthcare organizations, systems, and providers are now enthusiastically pursuing the prevention of disease in addition to the promotion of health. The literature is rich with statistical evidence positively representing this transformative approach. By preventing disease and promoting health, not only do clients benefit, but also organizations, systems, and providers glean benefits through the conservation and stewardship of various resources, such as money, time, and workers. As the Hispanic community does not typically participate in preventative healthcare, they have been

disproportionately excluded from reaping the benefits of this transformative shift. There is immense opportunity for researchers and providers to conduct further study, education, and intervention to solve this imbalance within healthcare (Buttaro et al., 2021; HKS JHP, 2017; Merson et al., 2020).

Secondly, leadership within healthcare has shifted from a more authoritarian approach to one that is client-centered/led. Respect for autonomy is one of the four foundational principles of nursing ethics. Nevertheless, for the client to be truly autonomous, they must also be fully informed. This shift represents the birth of a partnership between provider and client. The provider should be well-researched and trained, competent in both knowledge and skill. However, the provider must also demonstrate humility through open-minded conversation, empathy through compassionate care, and respect through shared decision-making. The provider must personalize evidence-based education to most benefit each client individually. This coalescence of evidence-based research and practice and personalization of care, when paired together with cultural sensitivity/competence, could lead to prolific success by positively impacting the Hispanic community through demonstrative respect for their cultural customs and desire to improve their holistic health (HKS JHP, 2017; Varkey, 2021).

Thirdly, as important as client-centered care is, there is a growing emphasis consigning to community health. As previously discussed, one's community, such as family, living situation, and job, can significantly affect their wellbeing. There have been increased efforts in recent years to better serve disadvantaged communities residing within the U.S. A lack of privilege may present in various forms, such as being a racial/ethnic minority, not speaking the native language, lacking education, and working a low-paying job, among many others. This substantial

disparity necessitates continued attention and action (Brown et al., 2021; De Alba et al., 2019; Muncan, 2018).

Community is especially important in Hispanic culture. Hispanic persons are extremely community- and family-oriented, and this orientation significantly impacts life and health decisions made by Hispanic persons. Everyone serves a specific role within both their family and their community. Hispanic families are typically patriarchal and multigenerational. Traditionally, the father provides, protects, and makes the decisions; and the females cook, clean, and care for the children. Daughters typically do not move out of their parent's home unless married, and grandmothers typically move in with their eldest son's family once widowed. The residing grandmother, though, often surpasses the father's leadership as the household matriarch, often superseding him as decision maker, particularly concerning health-related matters. Within Hispanic culture, it is considered selfish to make a decision that benefits one's personal life and/or health but that also potentially hinders a family or community member. These cultural customs are important for providers to consider as they are caring for Hispanic clients (HKS JHP, 2017).

Disparities Impacting the Hispanic Community

Specifically, the Hispanic demographic unfortunately experiences much of this disparity as they oftentimes meet numerous challenges typically associated with disadvantaged communities. The Hispanic community is presently the largest minority in the U.S., making up approximately 18.7% of the country's population and measuring over 62 million persons, with this statistic expected to double within the next half century (CNN, 2022). Additionally, the majority of Hispanic persons' native language is Spanish, not English. There is a rapidly increasing sub-demographic of undocumented Hispanic persons who immigrated to the U.S.

illegally, approximately 13% of the current U.S. Hispanic population, that are at an even greater health/healthcare disadvantage (Andrade et al., 2021; Gamboa, 2021).

Many Hispanic persons statistically also possess lower socioeconomic statuses, less education, fewer resources (like being uninsured), and lower-paying and less-desirable jobs. All of these barriers are in addition to the genetic and cultural obstacles with which the Hispanic community is likewise statistically associated. The CDC reports that Hispanic persons are 50% more likely to die from diabetes and liver disease than their Caucasian counterparts. The CDC also reports that heart disease and cancer are the two leading causes of death among this people group. Additionally, the CDC reports "24% more poorly controlled high blood pressure, 23% more obesity, [and] 28% less colorectal screening" (Centers for Disease Control and Prevention, 2015, p. 1).

Health Illiteracy

Health illiteracy is believed to be a major component of unhealth. Health literacy is a valuable asset to every person regardless of demographic. The CDC recently updated their definition of HL by separating it into two categories: personal and organizational. The CDC now defines personal HL as "the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others" (CDC, 2022b, p. 1). The CDC defines organizational HL as "the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others" (CDC, 2022b, p. 1). Health literacy is valuable not only to the individual but also to the healthcare system. Ideal outcomes can be achieved when both of these categories are cohesively accomplished (CDC, 2022b).

Although numerous quality initiatives (QIs) have been implemented to aid in its reduction, HI remains a significant issue, particularly among disadvantaged people groups with insufficient education, socioeconomic status, and resources. These challenges, in addition to other obstacles, such as language barriers, chronic health problems, and immigration difficulties, increase the likelihood of Hispanic persons experiencing HI. This disparity is well-noted in current literature, as non-native English speakers residing within the U.S. are statistically associated with reduced HL, which can be directly tied to increased hospitalizations, diseases, and mortality. HI is likewise associated with increased burden and cost for healthcare systemically (Hickey et al., 2018).

Unfortunately, education level possesses a considerable impact upon one's HL, creating even more disparity for disadvantaged communities, such as the Hispanic community (Fei et al., 2017; Wijekumar et al., 2018). In addition to the negative affect this statistic has upon outcomes, HI is also linked to a lack of routine healthcare, such as health promotive and disease preventative education, screening, treatments, and therapies (Hadden et al., 2019; Hickey et al., 2018; Walters et al., 2020). Health illiteracy is associated with a financial burden of greater than $200 billion for healthcare-related expenditures annually within the U.S. (ICD10monitor, 2019). Whereas HL has been associated with increased healthcare compliance and improved client outcomes (Hickey et al., 2018; Kirkpatrick et al., 2020).

Health Literacy

The achievement of both personal and organizational HL, according to the above CDC definitions, complements the guiding ethical principles of beneficence, non-maleficence, justice, and respect for [client] autonomy. Over the years, additional principles have been appended to this list by varying sources, such as accountability, fidelity, veracity, research, and leadership. In

order to provide care that does good, does no harm, is just, respects autonomy, is reliable, and exhibits integrity, the provider must prioritize the HL of their clients, their organization, and healthcare as whole (CDC, 2022b; Varkey, 2021).

According to the CDC's definition of personal HL, the more educated a client is, the better informed their health-related decisions can be. Health literacy impacts the individual in various capacities concerning their daily life. It impacts their understanding of their present health such as why they are not sleeping well, why they are gaining weight, or why they have low daytime energy. It impacts their daily health decisions such as diet, exercise, and substance use. It impacts their awareness about what healthcare resources are available to them and how they should be utilizing them such as routine care, screening, and prescriptions. It impacts their knowledge regarding their diagnoses such as which diseases/conditions they have or are at risk for, both short- and long-term impacts, and lifestyle modifications. (Christy et al., 2018; Hickey et al., 2018; Vila-Candel et al., 2020).

Organizational HL is likewise extremely impactful to individual and systemic healthcare. Ultimately, healthcare is not only a service but also a business. In order to continue helping people, healthcare systems must be able to fiscally persevere. Although there are beneficial, evidence-based laws, policies, and protocols in place within differing healthcare institutions, apposite care does not always follow a straightforward path. In conjunction with current evidence, care should be individually catered to each client in an attempt to comprehensively best utilize available resources, steward associated expenses, and meet personal and community needs, thereby ultimately improving both client and organizational outcomes (CDC, 2022a).

The U.S. Department of Health and Human Services (HHS), Office of Disease Prevention and Health Promotion (ODPHP) created the National Action Plan to Improve Health

Literacy for "organizations, professionals, policymakers, communities, individuals, and families" to collaboratively strive for the betterment of health literacy for all (HHS, 2010, p. 1). This plan was founded upon the following two principles, "everyone has the right to health information that helps them make informed decisions, and health services should be delivered in ways that are understandable and beneficial to health, longevity, and quality of life" (HHS, 2010, p. 1). This plan was developed to cultivate a healthcare culture that "provides everyone with access to accurate and actionable health information, delivers person-centered health information and services, and supports lifelong learning and skills to promote good health" (HHS, 2010, p. 1).

This plan comprises seven evidence-based objectives, in addition to numerous strategies, that support both personal and organizational improvement of HL:

- Develop and disseminate health and safety information that is accurate, accessible, and actionable
- Promote changes in the healthcare system that improve health information, communication, informed decision-making, and access to health services
- Incorporate accurate, standards-based, and developmentally appropriate health and science information and curricula in childcare and education through the university level
- Support and expand local efforts to provide adult education, English language instruction, and culturally and linguistically appropriate health information services in the community
- Build partnerships, develop guidance, and change policies
- Increase basic research and the development, implementation, and evaluation of practices and interventions to improve health literacy
- Increase the dissemination and use of evidence-based health literacy practices and interventions (HHS, 2010, p. 1-2).

Health Equity

Healthy People 2030 established 358 data-guided, measurable, national objectives in an effort to improve health and well-being by 2030. They have three priority areas: Health Equity in Healthy People 2030, Health Literacy in Healthy People 2030, and Social Determinants of Health. All three of these areas' priority objectives are relevant to this IR's goals (Office of Disease Prevention and Health Promotion, 2022c). The priority health equity and literacy objective is to "eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all" (Office of Disease Prevention and Health Promotion, 2022a, p. 1). This objective intimately aligns with the purpose of this IR as the Hispanic community is unfortunately the recipient of much health disparity, inequity, and illiteracy. Addressing these incongruences is an essential component to improving the health and wellbeing of this client population. Healthy People 2030 define health disparity as a

> Particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion (Office of Disease Prevention and Health Promotion, 2022a, p. 1).

Healthy People 2030 defines health equity as the "attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary

injustices, and the elimination of health and healthcare disparities" (Office of Disease Prevention and Health Promotion, 2022a, p. 1).

Healthy People 2030 developed six objectives specific to health literacy:

- Increase the proportion of adults whose healthcare provider checked their understanding
- Decrease the proportion of adults who report poor communication with their healthcare provider
- Increase the proportion of adults whose healthcare providers involved them in decisions as much as they wanted
- Increase the proportion of people who say their online medical record is easy to understand
- Increase the proportion of adults with limited English proficiency who say their providers explain things clearly
- Increase the health literacy of the population (Office of Disease Prevention and Health Promotion, 2022b, p. 1)

Social Determinants of Health

The social determinants of health (SDOH) objective is to "create social, physical, and economic environments that promote attaining the full potential for health and well-being for all" (Office of Disease Prevention and Health Promotion, 2022d, p. 1). SDOH are the "conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks" (Office of Disease Prevention and Health Promotion, 2022d, p. 1). These determinants are categorized into five groups, "economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context" (Office of Disease

Prevention and Health Promotion, 2022d, p. 1). This IR delved into many of these issues as HL profoundly impacts personal, community, and systemic outcomes.

Advanced Practice Nurses

Advanced practice nurses are wholly equipped to fill this gap and provide excellent, holistic care to the Hispanic community. APNs possess a distinctive opportunity and prodigious responsibility to fulsomely utilize their nursing experiences, medical knowledge, researching proficiency, and holistic philosophy to best serve disadvantaged client populations, such as the Hispanic community. With overwhelming literature to support a direct correlation between HL and improved client outcomes, the APN should fervently pursue the fulfillment of HL for their native Spanish speaking clients. APNs are ideal providers to address HL within disadvantaged client populations as they can lean on their holistic metaparadigm to identify HI, ascertain suitable resources like an interpreter or community services, and educate/intervene promptly (Melnyk & Fineout-Overholt, 2019; Zaccagnini & White, 2017).

Theory of Cultural Marginality

Murphy et al. (2018, p. 106) delineates that theories "help define and differentiate a discipline, explain events, structure and organize knowledge, guide APRNs [Advanced Practice Registered Nurses] by identifying the goals and outcomes of practice, and contribute to a rational practice that questions and validates intuition and assumptions." Middle-range theories are characteristically narrower in focus and are applicable both in research and practice. Middle-range theories can stem from grand theories but can also originate from interdisciplinary theories, independent research, literature reviews, and clinical practice (Murphy et al., 2018). Due to their applicability, middle-range theories are best suited to bridge the gap between theory and evidence-based practice (EBP) (Zaccagnini & White, 2017).

Smith and Liehr (2018) advise evaluating middle-range theory via the rational however non-linear method of the "ladder of abstraction"; this logical, structured approach contains three different levels: philosophical, theoretical, and empirical. The philosophical level is represented by the highest rung of this figurative ladder. This level, relating to point of view, comprises three paradigms: unitary-transformative, the most abstract; ensued by interactive-integrative; and particulate-deterministic, the most concrete. The theoretical level, the conceptual rung, inhabits the center of the "ladder of abstraction" and similarly comprises three levels of theory: grand; middle-range; and the situation-specific, microrange. Lastly, the empirical level, the third rung, concludes this ladder by presenting theory to research and clinical practice (Smith & Liehr, 2018).

One of 13 middle-range theories referenced by Smith and Liehr (2018), Choi's Theory of Cultural Marginality, is established in the philosophical interactive-integrative paradigm and represents bicultural complexity. Choi's concepts of the middle-range theory comprise, "marginal living, across-cultural conflict recognition, and easing cultural tension" (Smith & Liehr, 2018, p. 27). His practice application examples comprise, "promoting parent-child engagement through across-cultural understanding and being sensitive to the struggle of immigration" (Smith & Liehr, 2018, p. 27). Choi's research activity examples comprise, "developing an instrument to measure cultural marginality and studying mental health outcomes of persons living through across-culture conflict" (Smith & Liehr, 2018, p. 28).

Choi, an immigrant himself, developed a fascination concerning the connection among immigrant adolescents in the U.S., cultural disparities, and psychological health, which guided him to create the Theory of Cultural Marginality (Choi, 2008). The Theory of Cultural Marginality was created "to increase understanding of the unique experiences of individuals who

are straddling distinct cultures and to offer direction for providing culturally relevant care" (Smith & Liehr, 2018, p. 299). Across-culture conflict recognition is an initial understanding of two differing cultures. Easing cultural tension mends across-culture conflict via four non-mutually exclusive, empirically-varied responses: assimilation, reconstructed return, poise, and integration. Marginal living, the most fundamental concept of this theory, is described as a "passive betweenness" amid two cultures (Murphy et al., 2018; Smith & Liehr, 2018).

Many within the Hispanic community, particularly native Spanish speakers and especially undocumented Hispanic persons, likewise struggle with the cultural division that Choi describes in his Theory of Cultural Marginality. This is an especially advantageous opportunity for the APN to apply their cultural awareness, knowledge, sensitivity, and competence. Regardless of status concerning language, education, and resources, the APN can provide personalized care to their Hispanic clients that will help them overcome immigrant-associated healthcare disparities, such as this theory depicts (Melnyk & Fineout-Overholt, 2019; Zaccagnini & White, 2017). This IR aimed to bridge the gap between health and HL, specifically for the Hispanic community, by sharing current data concerning the importance of both health and HL, highlighting health/healthcare barriers for Hispanic persons, uncovering existing HL screening resources, and identifying chasms that require future research and intervention.

Defining Concepts, Indicators, and Variables

The concepts, indicators, and variables of interest for this IR comprised the following: health and wellbeing among the Hispanic community is a key concept; screening its indicator; and statistical evidence such as incidence of commonly experienced diseases/conditions is a corresponding, measurable variable. Another pivotal concept is HL; again, with screening being the indicator; and HL screening tool results being a corresponding, measurable variable.

Unhealth within the Hispanic Community. Statistically, the Hispanic community has been linked to certain health problems that impact Hispanic individuals more commonly and/or more severely than Caucasians. The CDC (2015) reported it is 50% more likely for a Hispanic individual to die from diabetes or liver disease than their Caucasian counterpart. The CDC (2015) reported heart disease and cancer are the two leading causes of death among U.S. Hispanic individuals in addition to 24% more poorly managed high blood pressure; 23% more obesity; and 28% less colorectal screening.

Health Literacy Screening of Hispanic Persons. Although HL screening methodology for native Spanish speakers has yet to be standardized across healthcare systemically, there is ample evidence demonstrating the benefit of HL screening. Health literacy screening has been proven to demonstrate a positive correlation to the identification of health/English illiterate clients (Hadden et al., 2019). Health illiteracy identification through screening has been directly linked to improved client outcomes (Walters et al., 2020). Positive HI identification has led to further healthcare intervention for the Hispanic community (Francisco et al., 2018).

Rationale for Conducting the Review

The literature is rich with information concerning the benefit of HL and the detriment of HI upon client and healthcare outcomes. Health literacy/illiteracy has been linked to education level, which of course places members of disadvantaged communities, such as Hispanic individuals, at an increased risk for poorer outcomes (Fei et al., 2017; Wijekumar et al., 2018). Health literacy has been linked to an increased likelihood of receiving routine care from primary care providers, such as primary; secondary; and tertiary preventative education; screening; and treatment/therapy, whereas HI has been linked to more frequent use of emergency services for simple sick visits in addition to the omission of routine, preventative care (Hadden et al., 2019;

Hickey et al., 2018; Walters et al., 2020). These variables not only impact the client but also the available healthcare resources. Approximately $230 billion per year of healthcare expenses within the U.S. are attributed to HI (ICD10monitor, 2019). Health literacy has been linked to better compliance to recommended lifestyle modifications; treatments/therapies; and follow-up care, whereas HI has been linked to diseases that are preventable or can be straightforwardly improved or resolved with daily, modest life changes (Hickey et al., 2018; Kirkpatrick et al., 2020).

Health problems and disparities among the Hispanic community are prevalent in the literature. As the currently largest and most rapidly growing minority within the U.S., the Hispanic community faces much disparity and inequity, particularly concerning healthcare (Andrade et al., 2021; HKS JHP, 2017). This community's challenges are exacerbated by a language barrier as the majority of U.S. Hispanic persons are native Spanish speakers (Gore et al., 2021; Rosales et al., 2021; Vamos et al., 2018). This community possesses the largest and most rapidly growing undocumented sub-population within the U.S. This is further complicated by not only a significant language/literacy obstacle but also a lack of legal documentation. Undocumented persons are even more likely to be uninsured and inadequately utilize recommended healthcare resources as previously discussed/noted (Gamboa, 2021). And, in addition to some statistically inherent or genetic challenges, Hispanic persons are also associated with several health problems believed to be significantly impacted by lifestyle: obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease (CDC, 2015).

The literature exhibits the use of various HL screening tools with varied success in identification of illiteracy and improvement of outcomes. There is not presently a standardized tool for screening nor an approach for intervention post-screening. This integrative review

further delved into this practice—what is currently being accomplished; is it improving outcomes, and what future research/intervention is needed (Christy et al., 2021; Francisco et al., 2018; Hadden et al., 2019; Walters et al., 2020). Strategies for transformation must be integrated into and in harmony with the culture and priorities of healthcare systemically. Therefore, the mission, vision, and values of healthcare concerning the Hispanic community must likewise be cogitated prior to the application of new strategies.

Mission, Vision, and Values

It is fundamentally important to consider the mission and vision of systemic healthcare when strategizing for the transformation of healthcare for the Hispanic community and for the solicitation of support from the targeted stakeholders. The mission statement provides the purpose of healthcare for the Hispanic client population in addition to propelling initiatives across healthcare systemically. The vision statement provides the prospective goals of healthcare for the Hispanic community in addition to guiding the strategic plan. The values of systemic healthcare are imperative to cogitate as these will convey aims and direct action in addition to delineating systemic healthcare's culture. Examples comprise health literacy, health equity, and social determinants of health. Mutual themes between both the mission and the vision statements comprise the health and wellbeing of the Hispanic community, which suggests systemic healthcare is concerned about unhealth, disparity, and HI experienced by Hispanic persons. When the mission, vision, and values of a project are in alignment, its success is more probable (Cueva, 2020). Therefore, HL screening to identify HI among Hispanic persons and to improve outcomes is significant to stakeholders.

Stakeholders

Stakeholders are integral to the success and sustainability of an initiative. Stakeholders are individuals or people groups that are personally or professionally invested in a project. Those that possess a stake in the HL of the Hispanic community include Hispanic clients, as they are directly impacted most from HI; providers and other healthcare personnel; organizational, state, and national resources; and community services (Toronto & Remington, 2020).

Triggers

Triggers represent existing issues that necessitate change through recognition and engagement. Triggers direct the reviewer to examine the literature in search of relevant evidence to translate into practice that will lead to the prevention, improvement, and/or resolution of identified issues (Toronto & Remington, 2020). The triggers for this IR comprised unhealth and HI within the Hispanic community.

Unhealth within the Hispanic Community. There are numerous sources that correlate specific health problems such as obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease to the Hispanic population. Specifically, the CDC accounts 50% of Hispanic persons are more likely to die from diabetes and liver disease than Caucasians; heart disease and cancer are the two primary causes of death; 24% more poorly controlled high blood pressure; 23% more obesity; and 28% less colorectal screening (CDC, 2015). Many of these health problems are highly impacted by modifiable risk factors and could be prevented, improved, or resolved with lifestyle changes (Bellou et al., 2018). This seamlessly transitions into the second trigger of HI among native Spanish speakers.

Health Illiteracy within the Hispanic Community. Health illiteracy is a significant problem among non-native English speakers within the U.S. Approximately 80 million U.S.

adults are believed to possess poor HL, with a significant portion of this statistic believed to be comprised of the Hispanic demographic. There is likewise substantial literature that correlates HI with increased hospitalization, diseases, and mortality. Health illiterate Hispanic individuals are also associated with increased healthcare system burdens and costs, as many within this group do not appropriately utilize primary care and instead frequent the ED for routine healthcare visits (Hickey et al., 2018).

Preliminary Review of Studies

A preliminary review of the literature comprised 20 studies related to HL among the Hispanic community. The 20 studies comprised eight systematic reviews and meta-analyses of randomized controlled trials (RCTs), one RCT experimental design, one controlled trial, three correlational designs/cohort studies, four systematic review of descriptive and qualitative studies, seven descriptive designs/qualitative studies, and two expert opinions (Appendix A removed to comply with copyright). The literature was rich with statistical evidence of unhealth among Hispanic persons and the importance of HL pertaining to client outcomes. This profuse data compels action by researchers and healthcare providers. Evidence-based research must be conducted; healthcare disparities must be identified; QIs must be implemented; and efficacious interventions must be sustained. Health literacy screening has been associated with improved HL and client outcomes among Hispanic persons. Literature was appraised utilizing the Melnyk tool and exhibited the necessity to conduct further research and intervention due to the lack of standardization in approach to the identification of HI in addition to subsequent intervention. Key elements noted within the literature correlated to HI in the Hispanic community comprised health problems among Hispanic persons, the importance of health literacy, and the benefit of

health literacy screening. This evidence was significant in recognizing the scholarly project's problem, consequence, and purpose.

Supplemental Evidence

Supplemental evidence pertaining to HL was acquired from several sources and provides significant benefit for healthcare professionals, health organizations, and native Spanish speakers. The following websites were searched: CDC, CNN, NBC News, MedLearn, HHS, Public Health Nigeria, University of Michigan Library, University of Regina, ODPHP, HKS JHP, and WHO. And the following textbooks were utilized: Elsevier, Sage Publications, Wolters Kluwer, Jones & Bartlett Learning, Springer Publishing Company, InterVarsity Press, and Jones & Bartlett Learning. The websites provided current statistics, definitions, and guidelines, whereas the textbooks provided a variety of beneficial information such as IR frameworks, APN roles, and healthcare objectives. Supplemental evidence cohesively complemented research articles, all contributing to a comprehensive review (Toronto & Remington, 2020).

Standards

The Plain Language Action and Information Network (PLAIN) is a national health literacy guideline that comprises a "community of federal employees dedicated to the idea that citizens deserve clear communications from government" (CDC, 2019, p. 1). PLAIN was created and continually amends the Federal Plain Language Guidelines in order to provide relevant recommendations on transparent communication. The Plain Writing Act of 2010 is a national health literacy law that necessitates "federal agencies to train staff and use plain language when they communicate with the public" (CDC, 2019, p. 1). The U.S. developed a couple national health literacy standards. The Joint Committee on National Health Education Standards created the National Health Education Standards (NHES), which are "written expectations for what

students should know and be able to do by grades 2, 5, 8, and 12 to promote personal, family, and community health…[and] provide a framework for curriculum development and selection, instruction, and student assessment in health education" (CDC, 2019, p. 1). The Department of Health and Human Services, Office of Minority Health created the National Culturally and Linguistically Appropriate Services (CLAS) Standards, which can

> help organizations address the cultural and language differences between the people who provide information and services and the people they serve…[and] provide effective, equitable, understandable and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy and other communication needs (CDC, 2019, p. 1).

Review of Studies

Health Problems among Hispanic Persons. The literature clearly demonstrated that the Hispanic demographic commonly experiences certain health problems. There are many factors involved in the development of these differing diseases and conditions. Some are not modifiable, such as race/ethnicity, gender, increasing age, and family history. However, factors such as diet, substance use, physical activity, and extracurricular activities can be modified. Additionally, there are several factors that are not entirely modifiable or non-modifiable and vary from factor to factor and from person to person, such as education, job/income, social support, and physical environment (Bellou et al., 2018; Hickey et al., 2018).

Hispanic persons residing within the U.S. encounter disparity for numerous reasons such as minority status, language barrier, and illegal immigration, and the health and wellbeing of the Hispanic community is significantly impacted by this inequality as this people group is often presented with many challenges characteristically associated with disadvantaged communities

(Fei et al., 2017; Gamboa, 2021; Wijekumar et al., 2018). Many within the Hispanic community lack health insurance, high school education, high-paying jobs, and future financial security (Edward et al., 2018; Hickey et al., 2018). Hispanic persons are statistically at greater risk for developing obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease (CDC, 2015). Ultimately though, many of these commonly experienced health problems are greatly affected by modifiable factors and could be prevented, improved, or resolved with lifestyle modifications (Bellou et al., 2018; Hickey et al., 2018).

The Importance of Health Literacy. The above commonly experienced disparities are often associated with HI within the Hispanic community, particularly among native Spanish speakers (De Alba et al., 2019; Gore et al., 2021). With approximately 80 million U.S. adults considered to be health illiterate, the Hispanic community is believed to occupy a significant portion of that statistic; although, due to the commonly occurring both legal and illegal immigration associated with this population, researchers have found it difficult to obtain accurate statistics. Health illiteracy is associated with increased hospitalization, diseases, and mortality in addition to increased healthcare system burdens and costs, whereas HL is associated with an increased probability of receiving routine care, preventative education, screening, and treatment/therapy (Hickey et al., 2018; Vamos et al., 2018). Health literacy is likewise associated with increased compliance to recommended lifestyle modifications, treatments/therapies, and follow-up care (Francisco et al., 2018; Kirkpatrick et al., 2020; Muncan, 2018).

The Benefit of Health Literacy Screening. The literature is abundant with defenses for the importance of HL, yet approaches to its attainment remain inconsistent in the standardization of the process, especially for native Spanish speakers. There were differing HL screening tools identified in practice with varied results. The literature was favorable to the efficacy of these

screening tools; however, they were not without fault. There was a lack of consistency in tool type and usage. There was also significantly more research needed for post-screening intervention (Brown et al., 2021; Christy et al., 2021; Francisco et al., 2018; Hadden et al., 2019; Kim & Xie, 2017; Muncan, 2018; Walters et al., 2020).

Problem Statement

The U.S. Hispanic population is rapidly increasing; however, current healthcare efforts are inadequately adapting to this growth. This demographic is associated with several health problems, including obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease. In order to provide the Hispanic population with ideal health outcomes, interventions, such as health literacy screening tools, need to be more actively pursued to help identify existing deficits and aid this population in overcoming health obstacles.

Purpose of the Integrative Review

The purpose of this integrative review is to determine the effectiveness of current health literacy screening tools among native Spanish speakers. This IR amalgamates data from various studies to demonstrate common health problems and barriers experienced by the Hispanic community, the benefit of HL for positive client outcomes, and what health literacy screening tools are presently available. This IR will be of benefit by further delving into the existing health literacy screening resources, determining which are successful/unsuccessful, and explaining why/why not. Dissemination of this discerned information will help to highlight the benefit of current screening and direct continued research on this topic, particularly for subsequent intervention(s).

Review Questions

Among non-native-English-speaking, Hispanic, adult clients, would a health literacy screening tool increase the clinical identification of health literacy needs and improve client outcomes?

The following questions guided and focused the integrative review efforts.

1. Which health problems are most observed in the Hispanic client population?
2. Why is health literacy important?
3. Does health literacy screening improve client outcomes among native Spanish speakers?

Goals of the Project

The goals of the scholarly work were to:

1. Determine the effectiveness of current HL screening tools among native Spanish speakers.
2. Amalgamate data from various studies to demonstrate common health problems and barriers experienced by the Hispanic community, the benefit of HL for positive client outcomes, and what HL screening tools are presently available.
3. Further delve into existing HL screening resources, determining which are successful/unsuccessful, and explaining why/why not.
4. Highlight the benefit of current screening.
5. Direct continued research on this topic, particularly subsequent intervention.

Inclusion and Exclusion Criteria

The majority of publications utilized were published from 2017 to 2023 to ensure current, relevant information was applied to the review. The literature search was largely limited to research participants who were 18 years old and older. Only full-text articles in English and

Spanish were included. The majority of articles were peer-reviewed to support the validity and credibility of the applied data.

Most publications dated before January 1, 2017, were excluded in addition to the majority of articles concerning participants younger than 18 years old, partial-text, not peer-reviewed, and written in a language apart from English or Spanish (see Table 1).

Table 1

Inclusion and Exclusion Criteria

Inclusion	Exclusion
Publications from 2017-2023	Publications prior to 2017
Adult client population 18 years and older	Pediatric population less than 18 years of age
Peer-reviewed, grey literature	Non-research articles
Articles written in English or Spanish	Articles written in non-English or -Spanish languages
Full-text articles	Abstracts only

Conceptual Framework

Harris Cooper's (1989) conceptual framework, with the modifications made by Whittemore and Knafl (2005) and the additional modifications made by Toronto & Remington (2020), served as the basis for this integrative review. This revised framework is described in detail via concepts, indicators, variables, triggers, stakeholders, and dissemination and provides a profound review of the existing literature concerning HL within the Hispanic community. Additionally, the flow diagram Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was applied for in-depth review of the literature, particularly concerning inclusion and exclusion criteria and exhibited in Appendix F (removed to comply with copyright) (Page et al., 2021). The utilized literature sources were systematized via the Melnyk Levels of Evidence Pyramid in Appendix D (removed to comply with copyright) (University of Michigan Library, 2022). These tools support comprehensive research, the utilization of diverse methodologies, and standardized structure. This IR was structured through a five-stage process:

problem identification stage, literature search stage, data evaluation stage, data analysis stage, and presentation (Toronto & Remington, 2020; Whittemore & Knafl, 2005).

Problem Identification Stage

Problem identification is the initial step in a review as it guides the conducted research. Harris Cooper's (1989) conceptual framework, with the modifications made by Whittemore and Knafl (2005) and the additional modifications made by Toronto & Remington (2020) was selected to ensure rigor throughout the conduction of this IR. Although there is not presently a standardized guide to conducting an IR, this framework provides structure for the utilization of multifaceted methodologies. The IR is an ideal method for the identification and summarization of diverse, comprehensive information about HI in the Hispanic community. This IR aimed to determine the effectiveness of current HL screening tools among native Spanish speakers. Research has revealed that HL screening is positively correlated to HI identification and improved outcomes (Christy et al., 2021; Francisco et al., 2018; Hadden et al., 2019; Kim & Xie, 2017; Walters et al., 2020; Wijekumar et al., 2018). This IR will demonstrate the benefit of HL screening and the need for standardization of screening and subsequent intervention.

Literature Search Stage

Subsequent to problem identification, the literature search, or data collection, was performed. This stage is vital in ensuring rigor, as insufficient data collection will result in erroneous review conclusions. Therefore, the reliability of the keywords utilized for the varying methodologies of the literature search is essential to the credibility and generalizability of the review. A table of evidence was used to demonstrate the collected data from each study in this review, comprising their study purpose, sample characteristics, methods, results, level of evidence, limitations, and conclusions (Appendix A removed to comply with copyright).

Data Evaluation Stage

After collecting all viable data, the rigorous process of data evaluation can begin. An IR is an excellent method for translating evidence into practice as it enables the effective utilization of diverse methodologies and comprehensive sources, such as both experimental and non-experimental sources and primary and secondary sources. All levels of evidence possess value and utility within evidence-based research. However, per the Melnyk Levels of Evidence, level one evidence possesses more confidence and generalizability than level seven evidence, for example. This IR included diversity of levels of evidence, though intending to mostly incorporate literature sources with higher levels of confidence. Primary sources within this IR directly evaluated the efficacy of HL screening tools, while secondary sources indirectly evaluated this focus via reviews of primary sources. The diversity of methodologies and comprehensiveness of sources enabled the application of broad, comprehensive literature; however, it also complicated the achievement of review credibility due to limited method standardization. Taking into account the diversity of collected data, the most effective approach for evaluating the utilized IR sources is through the PRISMA flow diagram and the Melnyk Pyramid (Whittemore & Knafl, 2005).

The PRISMA flow diagram is a tool used for appraising the quality of literature sources. This evidence-based set of guidelines can be employed for conveying the various reviews used within the IR, evaluating intervention effect and goal outcomes. PRISMA 2020 consists of a 27-item checklist and a flow diagram which facilitates the use of diverse sources and systematically reveals the data collected throughout the IR via identification, screening, and included categories (Appendices E and F removed to comply with copyright). For this IR, the PRISMA flow diagram functioned as a foundation for ensuring quality throughout the execution of this review

(Page et al., 2021). The Melnyk Pyramid is another tool for appraising the quality of literature sources. This appraisal helps determine each article's relevance and credibility to this review's purpose. Level one signifies the highest level of relevance and credibility and descends to seven signifying the lowest. Level one encompasses systematic reviews and meta-analyses of RCTs; level two, one or more RCTs; level three, a controlled trial without randomization; level four, a case-control or cohort study; level five, a systematic review of descriptive and qualitative studies; level six, a single descriptive or qualitative study; and level seven is expert opinion (Appendix D removed to comply with copyright). This IR utilized all seven levels of evidence to provide a thorough review of the literature for the scholarly project (Melnyk & Fineout-Overholt, 2019).

Data Analysis Stage

During the data analysis stage, all acquired data from the review of literature is coded, categorized, ordered, and summarized to accurately analyze it. Pertinent literature is collected in a concise, organized, understandable approach. Patterns, themes, relationships, and variations are established. Subcategories were developed according to the applied variables such as the significance of HL; the impact of HI; health problems and disparities experienced by the Hispanic people; current HL initiatives; and the potential benefit of HL screening tools. Since both quantitative and qualitative studies, diverse methodologies, and a diversity of levels of evidence were integrated into this IR, continual contrast and comparison by means of data reduction, data display, data comparison, and conclusion drawing and verification were executed to ensure rigor (Whittemore & Knafl, 2005).

Constant Comparison Method. The constant comparison method enables the reviewer to translate data into categories, resulting in the establishment of patterns, themes, relationships,

and variations. Continued contrast and comparison of collected data is necessary to integrate various levels of evidence, diverse methodologies, and experimental and non-experimental studies into a review. In order to ensure the validity and reliability of this IR, data reduction, data display, data comparison, and conclusion drawing and verification were implemented (Whittemore & Knafl, 2005).

Data Reduction. During the first phase of data reduction, an adaptable classification system must be created to adapt to the diverse methodologies that will be utilized within the review. Subcategories are created, and primary sources are disseminated amongst them in correspondence with sample characteristics and intervention components. This IR's data was allocated according to level of evidence; then the following subcategories were established: significance of HL; the impact of HI; health problems and disparities experienced by the Hispanic people; current HL initiatives; and benefits of HL screening tools. During the second phase, data is extracted and coded through continual improvement of the data classification system in order to ensure rigor and preserve order. This IR's sources were inserted into a literature matrix to compare and contrast their study purpose, sample characteristics, methods, results, level of evidence, limitations, and conclusions (Appendix A removed to comply with copyright) (Whittemore & Knafl, 2005).

Data Display. The literature matrix is illustrated through a chart, which demonstrates all literature collected and applied within the review. Every article utilized in this IR was inserted into a matrix, exhibiting its study purpose, sample characteristics, methods, results, level of evidence, limitations, and conclusions (Appendix A removed to comply with copyright) (Whittemore & Knafl, 2005).

Data Comparison. Data comparison was conducted through the patterns, themes,

relationships, and variations acknowledged through data display. Data comparison of utilized sources lead to the identification of variables within this IR, resulting in the formation of final conclusions (Whittemore & Knafl, 2005).

Conclusion Drawing and Verification. Conclusion drawing and verification is the last step of data analysis; this step strengthens the generalization of data. Generalizable conclusions require the substantiation of validity and reliability of all source data to ensure inclusion of all pertinent evidence. After each subcategory was exhaustively analyzed, a concluding data analysis was completed, and all conclusive evidence was amalgamated to form a definitive conclusion regarding HL among native Spanish speakers (Whittemore & Knafl, 2005).

SECTION TWO: SEARCH STRATEGIES

Search Organization and Reporting Strategies

An integrative review supports a more profound comprehension of a topic by integrating both experimental and non-experimental studies, concurrently addressing numerous objectives. Search organization and reporting strategies are multifaceted due to the diversity of utilized methodologies in the development of appropriate conclusions. Due to the substantial benefit in the translation of evidence-based research into practice, meticulousness during the utilization of various study types within a review is essential to the credibility and generalizability of an IR (Toronto & Remington, 2020).

Search Strategy

For this IR, the following databases were searched: PubMed Central, Ovid, ProQuest, Taylors & Francis, Wiley, Sage, Cambridge University Press, Springer Nature, BMJ, and Elsevier. The following websites were searched: CDC, CNN, NBC News, MedLearn, HHS, Public Health Nigeria, University of Michigan Library, University of Regina, ODPHP, HKS

JHP, and WHO. The following textbooks were utilized: Elsevier, Sage Publications, Wolters Kluwer, Jones & Bartlett Learning, Springer Publishing Company, InterVarsity Press, and Jones & Bartlett Learning. A grey literature search was also performed, and the following databases were searched: Google Scholar, WHO, CDC, and ODPHP. The following keywords were utilized: health literacy, health illiteracy, Spanish, Hispanic, and health literacy screening tool. The following parameter was applied to all of the above sources: English or Spanish language. The following parameters were applied to the majority of the above sources: peer-reviewed and published within the last five years.

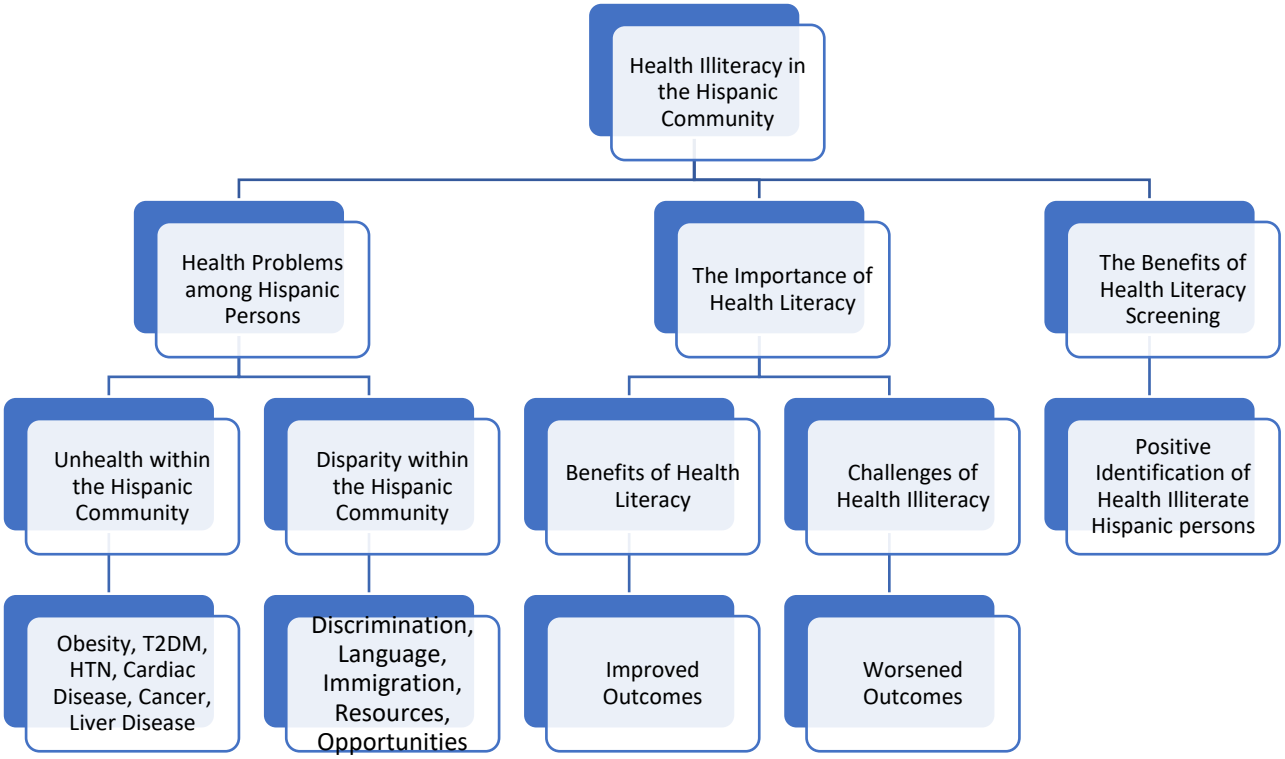
The literature search resulted in 630 articles for review. Six supplementary articles were discovered utilizing additional sources, and 91 duplicate articles were removed, consigning 545 articles for review. Every article was examined and augmented by subject age 18 years and older, study language in English and Spanish, quality and validity via peer review, and publication date within the last 5 years. Twenty-six articles remained, and continued review of both titles and abstracts resulted in the compilation of 20 articles as displayed within the literature matrix (Appendix A removed to comply with copyright).

Melnyk Pyramid. The Melnyk Pyramid is a tool used for assessing the quality of literature sources. This evidence-based instrument categorizes the levels of evidence of studies through a delineative pyramid ranging from one to seven. This assessment will help establish each article's relevance and credibility to this review's subject of research. Level one represents the highest level of relevance and credibility and progresses downward to seven representing the lowest. Level one comprises systematic reviews and meta-analyses of RCTs; level two, one or more RCTs; level three, a controlled trial without randomization; level four, a case-control or cohort study; level five, a systematic review of descriptive and qualitative studies; level six, a

single descriptive or qualitative study; and level seven, expert opinion (Melnyk & Fineout-Overholt, 2019). This IR used all seven levels of evidence to present a comprehensive review of the literature for the project. The strength of the evidence integrated into this review is moderate-to-high as 50% of the studies utilized are a level one, two, or three on Melnyk Levels of Evidence Pyramid (Appendix D removed to comply with copyright). Through this process, the following IR themes were identified: health problems among Hispanic persons, the importance of health literacy, and the benefit of health literacy screening (see Figure 1).

Figure 1

Flowchart of Themes Related to Health Illiteracy in the Hispanic Community



PRISMA. The PRISMA flow diagram is another tool used for assessing the quality of literature sources. This evidence-based set of guidelines can be employed to relate review studies, evaluating intervention impact and goal findings. PRISMA 2020 consists of a 27-item checklist and a flow diagram which facilitates the inclusion of diverse sources and systematically displays collected data through identification, screening, and incorporated categories. For this IR, the PRISMA flow diagram served as the basis for achieving quality throughout the completion of this project (Page et al., 2021).

Terminology

Documentation of search organization and reporting strategies is crucial in ensuring review validity and reliability (Toronto & Remington, 2020). Review questions and keywords

guided the conduction of this IR. The following keywords were utilized: health literacy, health illiteracy, Spanish, Hispanic, and health literacy screening tool. The following Boolean phrases were utilized as needed in order to enhance the literature search according to inclusion and exclusion criteria: OR, AND, and NOT.

Limitations

Limitations of this review included a lack of standardization for IR conduction. Limitations also included a lack of studies in languages other than English or Spanish. Limitations included the utilization of an individual reviewer, limiting the opportunity to ensure credibility and reduce the risk for bias. Limitations included search strategy as the quantity of studies generated in relation to HI in the Hispanic community was substantial, making it more challenging for the reviewer to select the most suitable sources for review inclusion.

SECTION THREE: METHODOLOGY

An integrative review was selected to demonstrate the existing literature and conclusions on health literacy among native Spanish speakers. An IR is an ideal review type as it allows for comprehensive, diverse methodologies. Higher levels of evidence provide more confidence in their relevance and credibility to a review than lower levels; however, each level of evidence holds value and can be effectively appreciated through an IR. The utilization of primarily higher levels of evidence reduces bias and ensures rigor (Toronto & Remington, 2020; Whittemore & Knafl, 2005).

Through a systematic and comprehensive search, this IR resulted in a compilation of 20 articles in total for review. These selected 20 articles vary in study type and vary from levels one to seven on Melnyk Levels of Evidence Pyramid (Melnyk & Fineout-Overholt, 2015). Eight of the studies are systematic reviews and meta-analyses of randomized controlled trials (Andrade et

al., 2021; Bellou et al., 2018; Christy et al., 2021; Hani et al., 2020; Muncan, 2018; Vila-Candel et al., 2020; Walters et al., 2020; Wijekumar et al., 2018); one study is an RCT experimental design (Francisco et al., 2018); one study is a controlled trial (Brown et al., 2021); three studies are correlational designs/cohort studies (Gore et al., 2021; Hadden et al., 2019; Hickey et al., 2018); four studies are systematic reviews of descriptive and qualitative studies (Buja et al., 2021; De Alba et al., 2019; Jasemi et al., 2017; Kim & Xie, 2017); seven studies are descriptive designs/qualitative studies (Castro-Sánchez et al., 2018; Edward et al., 2018; Fei et al., 2017; Rosales et al., 2021; Snijder et al., 2017; Vila-Candel et al., 2020; Vamos et al., 2018); and two studies are expert opinions (Kirkpatrick et al., 2020; Tyson, 2020). These articles substantiated the problem statement that addressed the issue of unhealth and HI within the Hispanic community. These articles also substantiate the benefit of HL in addition to what HL screening tools are currently available.

This IR did not incorporate human subjects or medical record review; however, an application to the institutional review board (IRB) was submitted and approved. Collaborative Institutional Training Initiative (CITI) training has been completed for quality verification of this IR (Appendix B removed to comply with copyright). Cooper's (1989) conceptual framework, with the modifications made by Whittemore and Knafl (2005) and the additional modifications made by Toronto & Remington (2020), served as the basis for this IR. This revised framework supported an exhaustive review of the current literature pertaining to health literacy within the Hispanic community.

Framework

Although there is not one standardized guide for conducting an integrative review, there are a few reliable frameworks and tools that provide beneficial structure. The conceptual

framework created by Cooper (1989) and modified by Whittemore and Knafl (2005) and Toronto & Remington (2020) applied the following stages: problem identification stage, literature search stage, data evaluation stage, data analysis stage, and presentation. The PRISMA flow diagram was applied for an exhaustive review of the literature selection (Appendix F removed to comply with copyright). And the Melnyk Levels of Evidence Pyramid tool was additionally applied to systematize literature sources (Appendix D removed to comply with copyright). This framework and these tools support comprehensive research, the application of diverse methodologies, and standardized structure.

Problem Identification Stage

For this IR, the problems addressed were the most common health issues experienced by Hispanic persons and HI within the Hispanic community, and the purpose was to determine the effectiveness of current health literacy screening tools among native Spanish speakers. This topic is important due to the U.S. Hispanic population rapidly growing with existing healthcare endeavors insufficiently adapting to this growth (Andrade et al., 2021; HKS JHP, 2017). Hispanic persons are associated with health problems, such as obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease (CDC, 2015). This IR integrated data from various studies to demonstrate the value of HL regarding positive client outcomes in addition to existing HL screening tools benefits.

Literature Search Stage

This stage of the integrative review ensures the rigor of the collected data. The validity and reliability of the IR is dependent upon the thoroughness of the literature search. After the problem and its associated variables are determined, all relevant data can be collected and incorporated into the review. Data collection methods are significant components for establishing

the credibility of a study, which ultimately leads to the generalizability of an IR. To date, all scholarly research was conducted electronically through a university library. All literature searches were narrowed down to English or Spanish. Most literature searches were narrowed down to peer-reviewed and published within the last five years (Toronto & Remington, 2020). The following databases were included in the review: PubMed Central, Ovid, ProQuest, Taylors & Francis, Wiley, Sage, Cambridge University Press, Springer Nature, BMJ, and Elsevier. The following keywords were utilized to focus the search: health literacy, health illiteracy, Spanish, Hispanic, and health literacy screening tool. Studies that were included within the data collection were conducted within various healthcare settings in the U.S. They incorporated themes of health literacy, safe and quality care, improving client and organizational outcomes, implementing QIs, and health literacy screening tools. These studies focused on adult minorities, immigrants, the uneducated, persons of low socioeconomic status, non-native English speakers, and the Hispanic community.

Target audience. Identifying the target audience is an important component in ensuring the generalizability of an IR (Toronto & Remington, 2020). For the purpose of this IR, the primary target audience comprised healthcare professionals, especially providers, nurses, technicians, secretaries, and any other healthcare team members involved in direct client care, as they will be the ones ideally reading this IR and implementing its recommendations. The secondary target audience comprised native Spanish speaking adults 18 years and older, as they would be the ones impacted by the review's conclusions. The tertiary target audience comprised health organizations as HI results in increased healthcare costs and resources.

Inclusion. The majority of publications utilized were published from 2017 to 2023 to ensure current, relevant information was applied to the review. The literature search was largely

limited to research participants who were 18 years of age and older. Only full-text articles in English and Spanish were included. The majority of articles were peer-reviewed to support the validity and credibility of the applied data.

Exclusion. Most publications dated before January 1, 2017 were excluded in addition to the majority of articles concerning participants younger than 18 years old, partial-text, not peer-reviewed, and written in a language other than English or Spanish.

Setting. Studies associated with any healthcare setting in the U.S. were included.

Data Evaluation

All levels of evidence are valuable and have their place within evidence-based research. However, per the Melnyk Levels of Evidence, level one evidence possesses more confidence and generalizability than level seven evidence, for example. This integrative review incorporated a variety of levels of evidence; however, it aimed to primarily integrate literature sources with higher levels of confidence. Primary sources within this IR directly assessed the effectiveness of health literacy screening tools, whereas secondary sources indirectly assessed this topic via reviews of primary sources. The diversity of methodologies and variety of sources enabled the utilization of broad, comprehensive literature; however, it also complicated the attainment of credibility of the review due to the lack of process standardization. Considering this variety, the most efficacious method of evaluating these utilized IR sources is through study purpose, sample characteristics, methods, results, level of evidence, limitations, and conclusions (Whittemore & Knafl, 2005).

PRISMA. The PRISMA flow diagram is a tool used for evaluating the quality of literature sources. This evidence-based set of guidelines can be utilized for reporting the differing reviews utilized within the IR, assessing intervention impact and goal findings. PRISMA 2020

comprises a 27-item checklist and a flow diagram which permits the application of diverse sources and systematically demonstrates the data collected during the IR via identification, screening, and included categories. The flow diagram begins with the number of articles ascertained from the preliminary search. 630 articles were ascertained for further review. Six supplementary articles were discovered utilizing additional sources, and 91 duplicate articles were removed, consigning 545 articles for review. Every article was examined and augmented by subject age 18 years and older, study language in English and Spanish, quality and validity via peer review, and publication date within the last five years. Twenty-six articles remained and continued review of both titles and abstracts resulted in the compilation of 20 articles as displayed within the literature matrix (Appendix A removed to comply with copyright). For this IR, the PRISMA flow diagram functioned as a foundation for ensuring quality throughout the execution of this review (Page et al., 2021).

Melnyk Pyramid. The Melnyk Pyramid is another tool for evaluating the quality of literature sources. This evidence-based instrument ranks the levels of evidence of research articles via an illustrative pyramid ranging from one to seven. This systemization will aid in determining each article's relevance and credibility to this review's topic of research (Appendix D removed to comply with copyright). Level one represents the highest level of relevance and credibility and progresses downward to seven representing the lowest. Level one comprises systematic reviews and meta-analyses of RCTs; level two, one or more RCTs; level three, a controlled trial without randomization; level four, a case-control or cohort study; level five, a systematic review of descriptive and qualitative studies; level six, a single descriptive or qualitative study; and level seven is expert opinion (Melnyk & Fineout-Overholt, 2019). This IR utilized all seven levels of evidence to provide a thorough review of the literature for the

scholarly project.

Data Analysis

During the data analysis stage, all acquired data from the review of literature was coded, categorized, ordered, and summarized to properly analyze it. Relevant literature was gathered in a concise, organized, understandable manner. Patterns, themes, relationships, and variations were established. Subcategories were formed according to the utilized variables such as the significance of HL; the impact of HI; health problems and disparities experienced by the Hispanic people; current HL initiatives; and potential benefit of HL screening tools. Since both quantitative and qualitative studies, diverse methodologies, and a variety of levels of evidence were incorporated into this IR, continual contrast and comparison through data reduction, data display, data comparison, and conclusion drawing and verification were performed to ensure rigor (Whittemore & Knafl, 2005).

Data Reduction. During the first phase of data reduction, a flexible classification system was developed to accommodate for the diverse methodologies that will be used within this IR. Subcategories were created, and primary sources were distributed amongst them according to sample characteristics and intervention elements. During the second phase, data was extracted and coded through continued development of the data classification system in order to assure rigor and maintain order. The sources were then inserted into a literature matrix, which demonstrates their study purpose, sample characteristics, methods, results, level of evidence, limitations, and conclusions (Appendix A removed to comply with copyright) (Whittemore & Knafl, 2005).

Data Display. The previously referenced literature matrix is illustrated via a chart and displays all literature collected and utilized within this IR. Every article was entered into this

matrix and exhibits study purpose, sample characteristics, methods, results, level of evidence, limitations, and conclusions (Appendix A removed to comply with copyright) (Whittemore & Knafl, 2005).

Data Comparison. The data comparison stage examined the patterns, themes, relationships, and variations identified through the data display stage. Data comparison of utilized sources resulted in recognition of this IR's variables, leading to definitive conclusion development (Whittemore & Knafl, 2005).

Conclusion Drawing and Verification. Conclusion drawing and verification is the final stage to consider; this stage supports generalizing data. Generalizable conclusions necessitate verification of validity and reliability of primary source data to ensure inclusion of all relevant evidence. After each subcategory was thoroughly analyzed, a final data analysis was performed, and all conclusive evidence was coalesced to form one definitive conclusion concerning HL among native Spanish speakers (Whittemore & Knafl, 2005).

Health Problems among Hispanic Persons

Organization and evaluation of all compiled data exhibited a correlation between certain health problems and the Hispanic community, demonstrated by the following five articles. Muncan (2018) conducted a systematic review of the literature to demonstrate risks associated with cardiovascular disease (CVD) for racial/ethnic minorities and suggested initiatives associated with improvement of client outcomes within this demographic. Study findings identified numerous health-related obstacles encountered by racial/ethnic minorities, which are linked to CVD as well as the benefit of a two-tiered system to augment this statistic. Fei et al. (2017) conducted a logistic regression to analyze the prevalence of hypertension (HTN) among the Hispanic and Asian population in New York City (NYC). Study findings indicated worse

HTN among non-Caucasian races. Brown et al. (2021) concluded a quantitative, quasi-experimental design to improve type two diabetes mellitus (T2DM) management in disadvantaged Hispanic clients. Study findings demonstrated the Hispanic population possessed higher rates of T2DM than their Caucasian counterparts, culturally considerate interventions benefitting this demographic, and nurse practitioners (NPs) being the ideal providers to effectually fill this gap. Bellou et al. (2018) conducted an umbrella review to determine T2DM risk factors. Study findings identify numerous specific risk factors, strategies, and interventions for T2DM. Andrade et al. (2021) conducted a systematic review to amalgamate evidence about the impacts of racial/ethnic discrimination on mental, physical, and health behaviors of Hispanic individuals and assess the coping mechanisms and cultural factors that reduce the negative relationship between discrimination and health among adult Hispanic persons residing in the U.S. Study findings emphasize the need for the development of ethnic identity in order to sufficiently address mental health and perceived discrimination.

The Importance of Health Literacy

Compiled data organization and evaluation exhibited the importance of HL, demonstrated by the following nine articles selected for this IR. Edward et al. (2018) conducted a chi-square, Mann-Whitney U test, and logistic regression analysis to evaluate the effect HL and health insurance literacy (HIL) have on health insurance and healthcare access for Spanish speakers in Massachusetts. Study findings indicated a negative correlation between a lack of healthcare access and health insurance and a positive correlation between HL and health insurance. Kirkpatrick et al. (2020) conducted a thematic analysis to examine provider perceptions in regard to prescribing antidepressants. Study findings indicated low mental HL among low-income, uninsured, Hispanic immigrants. Mental HL equates to the literacy of an individual concerning

mental health, such as mental health diagnoses like depression, anxiety, and posttraumatic stress disorder (PTSD); resources like primary care, specialists, and therapy; and treatments like antidepressants regarding necessity, side effects, and accessibility. Rosales et al. (2021) conducted a qualitative analysis to augment the existing literature by evaluating the communication-persuasion model (CPM) variables in Midwest Hispanic communities and distinguishing perceptions among Hispanic clients of health information in Spanish. Study findings indicated Spanish speakers prefer to receive health information from a healthcare professional and in Spanish strictly.

Vamos et al. (2018) conducted an exploratory qualitative study to assess the responses via an HL framework of female Hispanic clients living in a migrant farming community to abnormal Papanicolaou (PAP) test results. Study findings indicated incongruent responses and levels of understanding concerning abnormal PAP results which potentiate unideal follow-up care and client outcomes. Gore et al. (2021) conducted a cohort analysis to evaluate CVD risk awareness. Study findings indicated significant insufficiency of CVD knowledge among monolingual Hispanic clients. De Alba et al. (2019) conducted a cross-sectional survey to examine the relationship between acculturation and HL among native Spanish speakers in the US Midwest. Study findings indicated a strong correlation between HL and acculturation. Vila-Candel et al. (2020) conducted a systematic review comprising five RCTs and one quasi-experimental design to determine the effectiveness of HL interventions among women/pregnant women. Study findings indicated HL is an important component of positive client outcomes for women; however, more research is needed. Hickey et al. (2018) conducted a cross-sectional study in a population of older adults with multiple cardiac conditions to examine the relationship between HL and quality of life among clients of various ethnicities with cardiac conditions in

NYC. Study findings indicated that income and HL possess a direct correlation to one another. Jasemi et al. (2017) conducted a hybrid model of concept analysis to present a concept analysis of holistic care. Study findings exhibited a clear definition of holistic care.

The Benefit of Health Literacy Screening

Compiled data organization and evaluation exhibited the benefit of HL screening, demonstrated by the following six articles selected for this IR. Walters et al. (2020) conducted a systematic review of the literature to establish the efficacy of HL interventions. Study findings suggested enhanced HL and client outcomes. Wijekumar et al. (2018) conducted a randomized controlled study with pre- and post-tests to demonstrate increased learning with strategy instruction on the web for English learners (SWELL) over traditional methods. Study findings indicated a moderate to large impact preferring the students in the SWELL classrooms over the traditional ones. Kim and Xie (2017) conducted a systematic review of the literature to assess the impact of and relationship between eHealth and HL. Study findings indicated existing HI concerning eHealth utilization, a need for correlating screening tools, and the potential benefit of mobile applications. Hadden et al. (2019) conducted a statistical power analysis to identify health-illiterate, native Spanish speakers through an HL screening tool. Study findings suggested a lack of confidence with English medical forms and a positive identification of HI. Francisco et al. (2018) conducted an RCT to analyze the impact of an HL curriculum on the cardiovascular (CV) health of native Spanish speakers. Study findings demonstrated considerable improvement in both CV health and HL post-curriculum. Christy et al. (2021) conducted a secondary data analysis from a pilot RCT to illustrate HL among 50-75-year-old native Spanish speaking clients. Study findings indicated a lack of confidence among 78% of the study participants receiving health information or completing health forms in English.

SECTION FOUR: QUALITY APPRAISAL

Subsequent to data collection and organization is quality appraisal. Quality appraisal necessitates a methodical assessment to appraise the literature's importance, applicability, and trustworthiness (Toronto & Remington, 2020). This assessment is implemented throughout the development of the integrative review via inclusion and exclusion criteria during literature evaluation. All literature integrated into this IR is pertinent to the guiding review questions and preserves rigor through the recognition of advantages and disadvantages concerning methodology. Additionally, ethical integrity is a substantial component of quality appraisal. To better understand the significance of human subject protection within research, this IR's reviewer and chair both completed CITI training (Appendix B removed to comply with copyright). Since this IR did not involve the utilization of human subjects and was therefore exempt, the Institutional Review Board approved the project (Appendix C removed to comply with copyright). The data search for this IR was thorough, and final revisions were performed, comprising the addition of relevant keywords identified through contributing articles and additional searches not providing differing results (Toronto & Remington, 2020).

Sources of Bias

Bias can negatively impact the credibility of an IR considerably; therefore, minimizing bias is essential during the quality appraisal process (Toronto & Remington, 2020). As bias can ensue throughout any phase of research, it is important to assess hindrance in this study within every potential source. Grey literature, specifically, is an invaluable asset to the execution of a reliable IR, as this type of literature helps to fill in gaps and substantiate more conventional forms of scholarship. Grey literature is not formally published such as with textbooks or journal articles; however, its utilization can help to increase the rigor of a review, as significant bias has

been unambiguously identified among scientific publications. Grey literature sources can additionally aid in the enhancement of a review by providing recent statistical data. Consequently, a grey literature search was performed for this IR and incorporated several unpublished sources such as reliable government agencies and international and non-governmental organizations (Toronto & Remington, 2020). This search was performed through the databases Google Scholar, WHO, CDC, and ODPHP with 10 articles being incorporated into this IR, profoundly enhancing its legitimacy.

Internal Validity

Internal validity is the degree of credibility a conclusion possesses as it correlates causation (Toronto & Remington, 2020). The previously described detriment associated with the amalgamation of biased sources will negatively impact the IR's internal validity. The sources utilized within this IR were selected after rigorous analyses of potential bias, research issues, and study limitations. These sources were chosen in correlation to the IR problem statement and review questions, which, in conjunction with each other, helped guide the reviewer in determining accompanying conclusions. These conclusions likewise helped guide the reviewer in developing themes for this IR: health problems among Hispanic persons, the importance of health literacy, and the benefit of health literacy screening.

Appraisal Tools

Although there is not presently an exclusive, standardized tool for appraising an IR, there are several trustworthy frameworks that give advantageous guidance (Toronto & Remington, 2020). The conceptual framework created by Cooper (1989) and modified by Whittemore and Knafl (2005) and Toronto & Remington (2020) utilized the following stages: problem identification stage, literature search stage, data evaluation stage, data analysis stage, and

presentation. The flow diagram PRISMA was utilized for a comprehensive review of the selected literature (Appendix F removed to comply with copyright). The Melnyk Levels of Evidence Pyramid was utilized to organize literature sources (Appendix D removed to comply with copyright). The literature matrix was also utilized to demonstrate the conducted quality appraisal of each integrated source (Appendix A removed to comply with copyright). This framework and these tools support the categorization of the selected literature.

Reporting Guidelines

Toronto and Remington (2020) recommend the utilization of PRISMA as a reporting guideline to strengthen the validity and reliability of the IR. This 27-item checklist and flow diagram is an excellent tool for appraising the quality of the selected literature sources (Appendix E removed to comply with copyright). For this IR, the PRISMA statement served as a basis for ensuring quality throughout the implementation of the review (Page et al., 2021). This reporting guideline utilized a structured process to search relevant literature and methodically present its results via a flowchart (Appendix F removed to comply with copyright).

Applicability of Results

The applicability, also known as generalizability, is achieved by conducting a credible, relevant review (Whittemore & Knafl, 2005). The external validity of each selected literature article was evaluated, which led to the development of the following major themes: health problems among Hispanic persons, the importance of health literacy, and the benefit of health literacy screening. These themes are applicable to current healthcare initiatives aimed at improving outcomes for and reducing disparity experienced by minorities such as the Hispanic community.

Health Problems among Hispanic Persons

The IR results substantiated that the Hispanic community is associated with racial/ethnic disparities concerning health/healthcare. Not only are there certain diseases/conditions that Hispanic persons are more likely to develop than their Caucasian counterparts, there are also multifaceted barriers such as potentially a lack of health insurance, healthcare accessibility, provider cultural competency, HL, language accommodations, and chronic health resources (Muncan, 2018). With the U.S. Hispanic population rapidly increasing, this disparity is likewise expanding; therefore, healthcare must intentionally adapt through targeted intervention to improve outcomes for Hispanic clients (Fei et al., 2017). Although recent efforts have been employed to help bridge this gap for the Hispanic community, additional intervention is necessary. Statistically, culturally sensitive healthcare endeavors are associated with greater success among Hispanic persons. Nurse practitioners, functioning as culturally competent educators, are likewise associated with improved client outcomes among this client population. Meliorated by their holistic metaparadigm, the NP is an ideal resource to provide evidence-guided, client-centered care to the Hispanic community (Brown et al., 2021). Ultimately, there is abundant data within existing literature about the unhealth experienced by and disparity impacting the Hispanic community (Andrade et al., 2021). Future efforts should be focused on identifying resources to help resolve this gap in health and healthcare (Bellou et al., 2018).

The Importance of Health Literacy

The IR results additionally substantiated the significance of HL/HI regarding client outcomes. Due to commonly experienced healthcare disparities like language barriers, the Hispanic community possesses limited access to primary care and even more limited access to specialty care. For example, mental health is a substantial, growing problem for many people at

present. However, education about resources and interventions for mental health conditions such as depression are extremely limited for native Spanish speakers. The Hispanic community's English/health illiteracy possesses a direct, negative impact upon their mental health (Kirkpatrick et al., 2020). This community is linked to an insufficient provision of health information and preventative care, which leads to worsened client outcomes and increased strain on healthcare systemically (Vamos et al., 2018). Statistically, native Spanish speakers prefer and trust communication, regardless of format, such as videos, conversations, and articles in Spanish as opposed to English or a combination of English and Spanish (Rosales et al., 2021).

In addition to language barriers, inferior education, socioeconomic status, and resource accessibility compound the monolingual Hispanic individual's path to HL (Gore et al., 2021). Health literacy among Hispanic persons is also significantly impacted by HIL, thereby additionally impacting their healthcare accessibility. There are subpopulations within the U.S. Hispanic community that are experiencing even greater disparity, such as undocumented persons and women. There is a direct correlation between women's health and HL, for example. Initiatives to improve HL must be pursued in order to promote self-efficacy and optimal care for Hispanic women and other disparaged persons within this community (Vila-Candel et al., 2020). There is also a direct correlation between income and HL, which has been shown to significantly impact chronic health conditions (Hickey et al., 2018). Health literacy cannot be achieved by solely addressing the client's potential deficits; the provider must examine their own cultural competence, utilization of plain language, and willingness to personalize the plan of care according to the client's individual needs (De Alba et al., 2019). Researchers and healthcare providers must translate their awareness of this growing disparity and the consequential gap it is causing for this client population within healthcare into action and pursue further study and

intervention to mend this divide (Jasemi et al., 2017; Vamos et al., 2018).

The Benefit of Health Literacy Screening

The IR results further substantiated the benefit of HL screening. The literature is abundant with statistical evidence of unhealth among Hispanic persons and the value of HL concerning client outcomes. This copious data necessitates action on behalf of researchers and healthcare providers. Evidence-based research must be conducted; healthcare disparities must be identified; QIs must be implemented; and efficacious interventions must be sustained. Health literacy interventions not only improve HL, but they can also result in improved holistic health, especially for those within disadvantaged people groups (Walters et al., 2020). There are various instruments such as web-based tools, surveys, and curriculum that have been successfully implemented in order to identify HI among native Spanish speakers (Wijekumar et al., 2018). Multifaceted educational and healthcare interventions are associated with improved care of immigrant needs (Francisco et al., 2018).

However, as healthcare is rapidly evolving, the application of health information technology (HIT) is likewise expanding. Not only are clients struggling with literacy regarding health-related topics, but they are now also having to navigate the utilization of HIT as a newly standard part of healthcare interaction and facilitation (Kim & Xie, 2017). Screening Hispanic clients for health or English language literacy helps identify native Spanish speakers who may need additional support (Hadden et al., 2019). Unfortunately, there is not presently a standardized approach to the identification of HI nor for subsequent intervention, which further validates the considerable need for continued research and interposition (Christy et al., 2021).

SECTION FIVE: DATA ANALYSIS AND SYNTHESIS

Data analysis and synthesis comprise data reduction, display, and comparison in order to

effectively translate and summarize rigorous, unbiased evidence from the literature (Whittemore & Knafl, 2005). The following three major themes were identified: health problems among Hispanic persons, the importance of health literacy, and the benefit of health literacy screening.

Data Analysis Methods

Data analysis strengthens the objectives of the IR by developing a systematic framework for acquiring, organizing, comparing, filtering, summarizing, and displaying data. Data analysis leads to synthesis, both of which result in increased topic knowledge. A data analysis matrix is a valuable presentation tool, as it systematically exhibits relevant data (Toronto & Remington, 2020). This IR utilized a matrix to demonstrate study purpose, sample characteristics, methods, results, level of evidence, limitations, and conclusions (Appendix A removed to comply with copyright). Through data analysis and synthesis, the following themes were identified: health problems among Hispanic persons; the importance of health literacy; and the benefit of health literacy screening (see Figure 1).

Synthesis

The second function, synthesis, deepens one's understanding of a topic through the multifaceted application of diverse literature, resulting in the development of novel constructs (Toronto & Remington, 2020). Just as with analysis, identified themes and organized data are developed from the information synthesized in correlation to the IR's purpose and review questions. The strength of the evidence incorporated into this review is moderate-to-high as 50% of the studies utilized are rated as level one, two, or three on the Melnyk Levels of Evidence Pyramid (Appendix D removed to comply with copyright). IR results substantiated that the Hispanic community is associated with racial/ethnic disparities concerning health/healthcare, that

health literacy/illiteracy is significant to client outcomes, and that there are benefits to screening for health literacy.

Health Problems among Hispanic Persons

This review utilized a constant comparison method, accomplished by grouping and comparing/contrasting data in order to effectively distinguish patterns and themes (Toronto & Remington, 2020). The IR results support the deduction that the Hispanic community disproportionately experiences certain health problems and that disparity plays a significant role in their unhealth.

Unhealth within the Hispanic Community. Statistically, Hispanic persons experience certain health problems more commonly and/or more severely than their Caucasian counterparts. The CDC (2015) reported it is 50% more probable for a Hispanic person to die from diabetes or liver disease than a Caucasian. The CDC (2015) also reported heart disease and cancer are the two primary causes of death among the U.S. Hispanic population in addition to 24% more poorly managed high blood pressure, 23% more obesity, and 28% less colorectal screening. The majority of these commonly experienced health problems could be prevented, improved, or resolved with lifestyle modifications. For example, Bellou et al. (2018) concluded a healthy lifestyle could significantly reduce the risk for developing T2DM. Unfortunately, the Hispanic community is associated with a lack of preventative care attainment. HKS JHP (2017) deduced preventive care is not typically a priority within Hispanic culture as Hispanic persons often concede this component of health to their belief in God's will in addition to frequently treating minor illnesses with traditional practices. Preventative healthcare is not reasonably accessible for many Hispanic persons. Vamos et al. (2018) determined an annual estimate of 13,000 cases of and 4,100 deaths among U.S. Hispanic women occur due to preventable cervical cancer with

migrant farm laborers being at greater risk because of their significantly inferior access to preventive and therapeutic care.

Disparity within the Hispanic Community. As the largest minority in the U.S., the Hispanic population experiences significant healthcare disparity that is characteristically linked to disadvantaged communities, such as less education, lower socioeconomic status, and fewer resources. The Hispanic community additionally experiences disparity due to language barriers, racial/ethnic/cultural differences, and immigration challenges. Many within the Hispanic community lack health insurance, high school education, high-paying jobs, and financial security. Fei et al. (2017) noted as the Hispanic population grows within the U.S., their encountered disparity similarly increases. Muncan (2018) identified several complex factors that negatively affect Hispanic health outcomes, such as a lack of health insurance, healthcare access, provider cultural competency, HL, language accommodations, and chronic health resources. Andrade et al. (2021) ascertained racial/ethnic discrimination substantially impacts the holistic health of Hispanic persons. Healthy People 2030 recognized the direct correlation between health disparity, inequity, and illiteracy and unhealth within the Hispanic community (ODPHP, 2022). Kirkpatrick et al. (2020) determined, due to barriers and challenges associated with health disparity, Hispanic persons are less prone to take antidepressants than Caucasians. Gore et al. (2021) likewise determined that due to experienced disparities monolingual Spanish speakers are associated with higher rates of heart disease than Caucasians. Hickey et al. (2018) deduced racial/ethnic disparity is associated with poorer quality of life in Hispanic clients with more than one chronic heart condition. Rosales et al. (2021) determined that due to disparity, Hispanic persons suffer from more chronic health problems in comparison to Caucasians.

The Importance of Health Literacy

The IR results support the assertion that health illiteracy is a major component of unhealth, whereas health literacy is associated with improved personal and organizational health outcomes.

Benefits of Health Literacy. Health literacy is beneficial to both individuals and systemic healthcare (CDC, 2022b). Regarding personal HL, there is a direct correlation between being educated and being well-informed in order to make health decisions. Health literacy affects the daily lives of individuals through various means. It affects their understanding of their current health, their everyday health decisions, their awareness of available healthcare resources and how best to utilize them, and their knowledge of their diagnoses (Christy et al., 2018; Hickey et al., 2018; Vila-Candel et al., 2020). Regarding organizational HL, not only is the individual positively impacted but also healthcare as a whole. As healthcare is both a service and a business, systemic healthcare has to fiscally endure in order to continue helping individuals, families, and communities. Organizational HL supports the pairing of evidence with personalized care, fiscal responsibility, resource stewardship, community consideration, and ultimately outcome improvement (CDC, 2022a). De Alba et al. (2019) positively correlated HL and acculturation, highlighting the significance of Hispanic cultural customs when creating HL interventions and education. Vamos et al. (2018) applied HL as a meaningful conceptual framework to successfully identify disparities among Hispanic women with abnormal Pap test results. Hickey et al. (2018) deduced health-literate clients are more likely to satisfactorily manage their chronic diseases. Gore et al. (2021) established that cardiovascular HL is a significant component of health promotion.

Challenges of Health Illiteracy. As beneficial as HL is to improving outcomes, HI is detrimental. Muncan (2018) determined HI contributes to increased CVD risk factors and subsequent CVD. Kirkpatrick et al. (2020) identified HI as one of the primary barriers and challenges most negatively impacting Hispanic persons struggling with mental unhealth in their attainment of antidepressants. Edward et al. (2018) established a 93% correlation between a lack of health insurance and Hispanic clients never previously accessing healthcare. Gore et al. (2021) revealed that CVD HL is poorly employed among monolingual Spanish speakers external to traditional healthcare environments. Vila-Candel et al. (2020) correlated HI with bad health outcomes, particularly insufficient prevention and self-management of disease. Hickey et al. (2018) deduced health illiterate clients are associated with higher hospitalizations, disease development, and mortality. This study also discovered health illiterate clients are more likely to inappropriately utilize emergency services in place of primary care. Hickey et al. (2018) deduced HI causes substantial financial and social challenges for systemic healthcare. HI is more often experienced by the elderly, uneducated, poor, clients with chronic health problems, and non-native English speakers. With 80 million U.S. adults approximated to be health illiterate, Hispanics are believed to make up a considerable portion of this statistic. De Alba et al. (2019) predicted that by 2060 one third of U.S. residents will be Hispanic. This study also determined HI, a lack of acculturation, and disparity are linked to Hispanic persons experiencing more chronic health problems like HTN and T2DM than other people groups within the U.S. In addition to the adverse relationship HI has with outcomes, HI is likewise related to inadequate routine healthcare such as health promotive and disease preventative education, screening, treatments, and therapies (Hadden et al., 2019; Hickey et al., 2018; Walters et al., 2020). HI is

responsible for more than $200 billion annually in healthcare-related expenditures within the U.S. (ICD10monitor, 2019).

The Benefit of Health Literacy Screening

The IR results support the conclusion that health literacy screening is beneficial in improving outcomes within the Hispanic community. Walters et al. (2020) established HL interventions improve HL, thereby improving health behaviors, especially for disparaged communities. Francisco et al. (2018) found multifaceted educational and healthcare interventions are associated with improved health, HL, and language needs of immigrant Hispanic persons. This study found the Health Literacy and ESL Curriculum was beneficial for Spanish speakers with CVD, particularly within community environments. Kim and Xie (2017) determined mobile applications can be great eHealth resources for health illiterate individuals; however, continued efforts should be rendered to increase eHealth service accessibility. Hadden et al. (2019) revised substantiated HL screening questions from English into Spanish in order to better identify health illiterate Hispanic clients. Christy et al. (2021) stressed the necessity for HL interventions for health illiterate Hispanic clients who have difficulty with transcribed forms and information, emphasizing the importance of plain language being utilized within educational resources. Rosales et al. (2021) determined Spanish speakers prefer to receive health information in Spanish from an official healthcare entity. Gore et al. (2021) identified a lack of CVD literacy among disparaged monolingual Spanish speakers. This study also identified further necessity for CVD HL intervention such as prevention and education programs, customized in Spanish and to Hispanic culture, in addition to continued research and intervention. Unfortunately, there is not currently a standardized approach to the identification of HI nor for successive intervention,

which additionally supports the significant need for further research and intervention (Christy et al., 2021).

SECTION SIX: DISCUSSION

The purpose of this IR was to determine the effectiveness of current HL screening tools among native Spanish speakers. Amid the significant increase of Hispanic persons residing within the U.S., healthcare nationwide has been unable to adequately adapt to the growth. The Hispanic population is associated with various health problems, such as obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease. In order to help the Hispanic community attain improved health outcomes, interventions like HL resources must be more intentionally sought to address current disparities and support this people group in surmounting current health impediments, such as language barrier, education, and socioeconomic status. Due to these important issues, this IR is both opportune and essential in addressing the disparities which negatively impact Hispanic healthcare.

This IR synthesized data to answer the following questions:

1. Which health problems are most commonly observed in the Hispanic client population?
2. Why is health literacy important?
3. Does health literacy screening improve client outcomes among native Spanish speakers?

Health Problems among Hispanic Persons

This IR demonstrated that Hispanic persons experience certain health problems like obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease more frequently and severely than their Caucasian counterparts. Although some of these health challenges may be non-modifiable in nature, such as hereditary ones, the majority are modifiable, such as lifestyle, and therefore, can be ameliorated. The greatest barrier facing the Hispanic community is

health/healthcare disparity, inequity, and illiteracy. There are numerous obstacles hindering the betterment of health outcomes for Hispanic persons, such as a lack of health insurance, healthcare accessibility, provider cultural competency, HL, language accommodations, and chronic health resources. With this population increasing and the gap for adequate health/healthcare likewise widening, also encompassing subpopulations experiencing even greater division, there is a significant and apparent need for evidence-based, individualized, and holistic intervention (Brown et al., 2021; Bellou et al., 2018; Fei et al., 2017; Muncan, 2018).

The Importance of Health Literacy

This IR additionally demonstrated the significance of HL/HI concerning client outcomes (Edward et al., 2018; De Alba et al., 2019; Gore et al., 2021; Hickey et al., 2018; Jasemi et al., 2017; Kirkpatrick et al., 2020; Rosales et al., 2021; Vamos et al., 2018; Vila-Candel et al., 2020). The benefit of HL is multifaceted and substantial. Health literacy is associated with the utilization of primary care and preventative services, HIL and health insurance access, compliance with therapy or treatment, and ultimately improvement in overall health outcomes (Edward et al., 2018; Vamos et al., 2018). Conversely, HI is associated with the inverse. There is copious literature revealing the adverse impacts of HI, particularly among Hispanic clients. This IR incorporated studies presenting specific examples, such as mental health repercussions, systemic healthcare strain, and challenges with self-efficacy and optimal care for Hispanic women and other disparaged subpopulations (Kirkpatrick et al., 2020; Vamos et al., 2018; Vila-Candel et al., 2020). The literature exhibits correlations between HL and long-term health; this parallel is profoundly demonstrative as long-term health possesses arguably the most onerous impact upon both client health and systemic healthcare outcomes (Hickey et al., 2018). Health literacy necessitates a joint effort between providers and researchers to conduct continued study

and intervention to bridge this substantial gap (De Alba et al., 2019; Jasemi et al., 2017; Vamos et al., 2018).

The Benefit of Health Literacy Screening

This IR demonstrated the benefit of HL screening (Christy et al., 2021; Francisco et al., 2018; Hadden et al., 2019; Kim & Xie, 2017; Walters et al., 2020; Wijekumar et al., 2018). Unhealth, disparity, and HI within the Hispanic community in addition to HL benefit have been well established. Evidence-based research must be conducted; healthcare disparities must be identified; QIs must be implemented; and efficacious interventions must be sustained (Walters et al., 2020). A need has been clearly identified; however, a plan of action must likewise be established (Francisco et al., 2018; Hadden et al., 2019). There are numerous tools of various kinds that have been successfully implemented in order to identify HI among native Spanish speakers (Wijekumar et al., 2018). Unfortunately, there is not currently a standardized method for identifying HI nor for subsequent intervention, which confirms the significant necessity for further research and intercession (Christy et al., 2021).

Implications for Practice

This IR provided ample evidence to amend practice in support of the utilization of screening tools in order to identify HI among native Spanish speakers. Researchers and providers must recognize the unhealth and disparity that is commonly experienced by the Hispanic people, appreciate the impact of HL upon outcomes, and advocate for healthcare transformation on behalf of the Hispanic community through intentional screening and continued study/intervention. Health literacy screening and intervention must balance evidence-derivation with client-centeredness. Pursuing standardization of process could provide benefits by ensuring reliable, quality care for all Hispanic clients. Integrating an official screening process into formal

regulation could help prevent any native Spanish speakers from metaphorically falling through the healthcare cracks. There is a considerably greater lack of standardization regarding subsequent intervention post-positive HI screening. Intervention process and regulation could also provide significant benefit to Hispanic clients deemed health illiterate through screening.

This IR discerned five elements of discussion to disseminate:

1. The Hispanic community experiences considerable racial/ethnic disparity within healthcare (Andrade et al., 2021; Bellou et al., 2018; Fei et al., 2017).
2. Hispanic persons disproportionately suffer from the following health problems: obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease (Brown et al., 2021; Muncan, 2018).
3. Health literacy possesses a significant impact upon holistic health (Candel et al., 2020; De Alba et al., 2019; Edward et al., 2018; Hickey et al., 2018; Jasemi et al., 2017).
4. Health literacy screening helps identify native Spanish speakers who need additional support (Gore et al., 2021; Hadden et al., 2019; Kirkpatrick et al., 2020; Rosales et al., 2021; Vamos et al., 2018).
5. A standardized approach to health literacy screening and intervention is currently nonexistent; therefore, further research is needed (Christy et al., 2021; Francisco et al., 2018; Kim & Xie, 2017; Walters et al., 2020).

Future Work

Further research is essential in developing a standardized approach for HL screening and subsequent intervention. Establishing uniformity in screening and intervention via regulation should be explored in order to improve the reliability and the quality of care provided to

Hispanic clients. This continued endeavor necessitates involvement from clients, communities, providers, and researchers. Future work must consider the evidence, the culture, and the individual if to be successful.

Dissemination

Dissemination of results is the concluding component of the IR. Efficacious dissemination enables the IR to provide comprehensive benefits to associated stakeholders. The IR dissemination plan will transparently convey central research conclusions to its target audience, encouraging awareness and continued study (Melnyk & Fineout-Overholt, 2015; Toronto & Remington, 2020). The selected framework, derived from the University of Virginia, to disseminate this IR's results comprises findings, objectives, audience, user needs, methods, resources, and barriers (University of Regina, 2011).

Findings

This IR's findings will be disseminated and comprise health problems among Hispanic persons, the importance of HL, and the benefit of HL screening.

Objectives

In alignment with this IR's purpose, objectives comprise determining the effectiveness of current HL screening tools among native Spanish speakers; amalgamating data from various studies to demonstrate common health problems and barriers experienced by the Hispanic community, the benefit of HL for positive client outcomes, and what HL screening tools are presently available; further delving into existing HL screening resources, determining which are successful/unsuccessful, and explaining why/why not; highlighting the benefit of current screening; and directing continued research on this topic, particularly subsequent intervention.

Audience

This IR's stakeholders comprise Hispanic clients, healthcare providers and other healthcare personnel; organizational, state, and national resources; and community services. Hispanic clients are key stakeholders, as they are most-directly impacted from a lack of health literacy. Providers and other healthcare personnel are also key stakeholders, as they are responsible for the provision of care to Hispanic clients. Organizational, state, and national resources and community services are likewise impacted by HI in the Hispanic community, as this IR has demonstrated, due to associated reduced outcomes and increased resource and financial burdens.

User Needs

IR dissemination will be catered to its user needs. Dissemination of results to a Hispanic client would certainly require a differing approach than to a healthcare provider. Depending on the audience, language may need to be simplified or a different presentation tool utilized. During IR dissemination, it is essential to convey a pertinent, advantageous message to the specific audience to encourage audience engagement (Toronto & Remington, 2020; University of Regina, 2011).

Methods

Potential dissemination methods for this IR comprise "peer-reviewed publications, podium, or poster presentations at conferences, professional seminars, social media, and news media" (Toronto & Remington, 2020, p. 25). These methods enable IR findings to be disseminated and ultimately benefit relevant stakeholders.

Resources

Resources for the dissemination of this IR could include presentation materials, location, advertisement, and labor force.

Barriers

An IR is the broadest type of research methodology, as it enables an amalgamated assemblage of experimental and non-experimental research; however, it is not without its limitations, such as a lack of standardization for its conduction. Barriers to successful dissemination of IR findings may include a lack of consistent findings concerning type of utilized HL screening tool and subsequent interventions.

Conclusion

As the largest minority in the U.S., the Hispanic community continues to experience significant unhealth and disparity. Hispanic persons commonly suffer from various health problems: obesity, diabetes, hypertension, cardiac disease, cancer, and liver disease and are associated with numerous disparities: racial, ethnic, and cultural discrimination; less education; lower socioeconomic status; fewer resources; language barrier; immigration challenges; and a lack of health insurance, high school education, healthcare access, high-paying jobs, provider cultural competency, financial security, and health literacy. Health illiteracy has been directly correlated to poor health outcomes, particularly within the Hispanic community; however, health literacy screening has been proven successful in identifying health illiterate, native Spanish speakers. Although there is not presently a standardized health literacy screening tool or process, the evidence demonstrates substantial benefits for screening Hispanic clients for language and health illiteracy. Implications for practice for the healthcare provider entail intentional and consistent screening for health literacy, particularly for Hispanic clients. Practice implications for

researchers necessitate continued study concerning health literacy screening standardization. Researcher implications for practice also entail further research concerning health literacy interventions, as there is likewise not an existing standard for intervening subsequent to positive identification of health illiteracy among Hispanic clients.

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Appendix A

Literature Matrix Removed to Comply with Copyright

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Appendix B

CITI Program Certificate Removed to Comply with Copyright

Citi Program Certificate.pdf

Appendix C

IRB Letter Removed to Comply with Copyright

IRB Letter.pdf

Appendix D

Melnyk Levels of Evidence Removed to Comply with Copyright

Melnyk Levels of Evidence.pdf

Appendix E

PRISMA Checklist Removed to Comply with Copyright

PRISMA Checklist.pdf

Appendix F

PRISMA 2020 Flow Diagram Removed to Comply with Copyright

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