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The Power of the Tongue: A Systematic Review on Inclusive Language Practices in Patient-Centered Healthcare Settings

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B.S. in Public Health
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An abstract of
A thesis submitted to the Faculty of the
Rollins School of Public Health of Emory University
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Abstract

The Power of the Tongue: A Systematic Review on Inclusive Language Practices in Patient-Centered Healthcare Settings

By Brittney Perry

Background: Communication of health-related information is a crucial aspect of the professional work taking place in healthcare settings. Many studies have shown that language used in the delivery of health information and healthcare interactions can both positively and negatively impact patient health outcomes. A systematic review of the literature was conducted to identify best practices for decreasing harmful and biased language.

Goal: To systematically identify and summarize evidence-based best practices for decreasing biased language usage by health sciences professionals working in healthcare and research.

Methods: A systematic search and review was conducted to locate peer-reviewed literature. An initial literature search was performed using ProQuest Sociological Abstracts, PubMed, and ScienceDirect databases. Covidence, a systematic literature review tool, was used by two reviewers to perform screening and data extraction of studies and to mitigate the risk of bias and poor reporting quality. PRISMA guidelines were used for the reporting process. A total of 128 full-text articles were deemed relevant for the review.

Results: A total of 128 papers were identified and title and abstract screened. After initial screening, 33 articles were deemed relevant for a full-text screen. This resulted in 12 articles meeting all eligibility requirements. Findings indicate a need for the use of inclusive language in healthcare settings and the challenges in implementing inclusive language in these settings.

Conclusion: Healthcare providers must be trained in inclusive language to enhance patient care quality, as advocated by organizations such as the American Medical Association and World Health Organization. Implementations such as inclusive language workshops and trainings are necessary to ensure the next generation of healthcare providers adopts these practices. Implementing these practices is a crucial step toward addressing systemic biases in the healthcare system, patient-centered care and improving health outcomes for all populations.

Keywords: Bias, Inclusive Language, Stigma, Healthcare workers, Infectious Diseases, Public Health, Patient-centered Care

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Table of Contents

List of Abbreviations

AUD	Alcohol Use Disorder
AMA	American Medical Association
ADHD	Attention-Deficit/Hyperactivity Disorder
HIV	Human Immunodeficiency Virus
IRB	Institutional Review Board
MUS	Medically Unexplained Symptoms
PFL	People First Language
PCC	Person-Centered Care
PCL	Person-Centered Language
PICOC	Population, Intervention, Comparison, Outcomes, and Context
PRISMA	Preferred Reporting Items for Systematic Review and Meta-Analysis
SUD	Substance Use Disorder
US	United States
WHO	World Health Organization

I. Introduction

There have long been many remarks about the power of the tongue, of the language we use. In the Book of Proverbs, it is stated “The tongue has the power of life and death” (Proverbs 18:21, NIV). This statement resonates strongly when examining the impact of communication between healthcare professionals and people receiving their care. Communicating health-related information is a crucial aspect of the work of healthcare providers and the language they use in the delivery of information can have the ability to build or harm individuals and communities.

For example, when providing healthcare to individuals experiencing substance use disorder (SUD) or individuals in recovery from SUD, the connection between the language used in patient-provider communication and its impact on health outcomes could not be more evident. The use of words such as “addict” and “substance abuser” is associated with “greater levels of bias and greater levels of negative association” leading to a poorer outlook on recovery (Ashford et al., 2019). Similarly, studies focused on alcohol use disorder (AUD) found that the use of stigmatizing language may lead to “poorer health outcomes, lower problem recognition, and lower chances of seeking treatment” (Hartwell et al., 2022).

Words that are written or spoken hold immense power and are a prime vehicle for the expression of stigma and discrimination in society. A conceptualization of stigma proposes that it requires five interrelated components: distinguishing and labeling differences, linkage to negative stereotypes, categorizing “us vs. them”, discrimination leading to unequal outcomes, and access to power (Link & Phelan, 2001). Discrimination is a key component in the United States (US) context, historically shaping the country’s health institutions and resulting in worse health outcomes for minority and marginalized groups when compared to groups that benefit from societal and economic privilege (Goddu et al., 2018). Stigma manifests in several ways in health sciences and healthcare, including (mis)understandings of the body and its physiology, association of implicit biases with illnesses, and communication barriers (Marjadi, 2023). It has been documented how diagnoses such as Human Immunodeficiency Virus (HIV), SUD, and more recently Coronavirus (COVID-19), are highly stigmatized while they disproportionately impact marginalized and underserved groups (Harney et al., 2022).

Person-centered language, with its historic roots within the disability self-advocacy movement of the mid 1970s, has been identified as one approach to reducing stigma within society (Harney et al., 2022). Furthermore, this movement posits that awareness of health inequalities has highlighted the need for more inclusive healthcare practices. For example, person-centered language has been studied in the context of attention deficit hyperactivity disorder (ADHD), with findings pointing to the reinforcement of stigma and negative impacts on the provision of care and the mental and social well-being of individuals when person-centered language is not used (Robling et al., 2023).

Person-centered language is now widely advocated for within the American Medical Association Manual of Style and by the American Psychological Association (Harney et al., 2022) and mirrored in healthcare settings by the “person-centered care” (PCC) concept. PCC was originally formulated in 1969 by Edith Balint, further developed since, and is currently promoted by influential public health institutions such as the Center for Disease Control and Prevention and the World Health Organization. Initially described as understanding the patient as a unique human being, PCC’s definition has evolved over time and alternative terms coined include “patient-centered care” (Santana, 2018). However, the aim to cultivate inclusive language usage is consistent among the different terminologies.

By conducting a systematic review of the literature, this thesis identified, summarized, and assessed best practices for appropriate and sensitive language or terminology and effective methods of communication between healthcare professionals and persons receiving their care. Further, this systematic review highlights the impact of healthcare providers' use of harmful and biased language in healthcare settings and identifies interventions implemented to address this issue. For this review healthcare professionals were defined as those who study, diagnose, treat, and prevent human illness, injury, and other physical and mental impairments. These professionals are on the front line of people's well-being and care and of providing scientific information.

Background & Significance

Despite the acceptance of a need for inclusive language in healthcare settings, research conducted by Marjadi (2023) found that "searches of literature in 2021 and 2022 failed to identify inclusivity guides covering multiple diversity aspects and their intersections." Equally lacking were practical steps health providers could use as a quick guide for inclusive practice. In their article, Mahdi and Fielder discuss that "The linguistic competence of health care workers is essential for the communication of the diagnosis or treatment details" (2020). Improved patient-provider communication can enhance patient trust, engagement, and overall satisfaction, leading to better health outcomes and treatment adherence (Mahdi & Fielder, 2020). Biased or non-inclusive language is problematic in the communication of health-related information and can contribute to ongoing stigma and discrimination, further limiting quality healthcare access, which is particularly dangerous for marginalized and vulnerable populations (Goddu et al., 2018).

Promoting inclusive language usage aligns with broader efforts to address historical structural inequalities and promote health equity within healthcare systems (Marjadi, 2023). By systematically identifying, documenting, and assessing current best practices for reducing biased language, this systematic literature review aims to contribute to promoting and raising awareness of the importance of fostering a more inclusive healthcare environment. Ultimately, this review has the potential to inform policy, practice, and future education initiatives for healthcare professionals.

Problem Statement

In modern healthcare settings, providing patient or person-centered care is widely recognized as a fundamental principle for ensuring quality care and patient satisfaction amongst healthcare providers. However, despite the growing need and emphasis on person-centered approaches, the use of non-inclusive language in healthcare interactions poses a significant barrier to achieving true patient-centered care (Goddu et al., 2018).

Closely related to the person-centered approach, inclusive language refers to the use of communication that puts the patient in the driver's seat and seeks to be culturally sensitive, gender-neutral, and respectful (Columbia University, 2022). The purpose of inclusive language is to acknowledge and respect the diverse identities, backgrounds, and experiences of all persons receiving care. Failure to adopt inclusive language practices can result in communication barriers, diminished trust, disparities in health outcomes, and negative outlooks on one's overall health or the perceived ability to change it (Mahdi & Fielder, 2020). Therefore, assessing best practices for inclusive language usage in healthcare settings provides an important contribution to advancing an equitable, respectful, and collaborative patient-provider relationship.

Purpose Statement

In striving to achieve patient-centered care, it is essential to address the pervasive issue of non-inclusive (or exclusive) language, which can create barriers to effective communication between patients and healthcare providers and, furthermore, perpetuate disparities in overall healthcare access and outcomes. The purpose or aim of this systematic literature review was to identify, synthesize, and assess existing literature on best practices (strategies and interventions) for decreasing biased language usage by healthcare professionals.

Research Objectives

This review sought to achieve the following objectives:

1. Use the Cochrane Systematic Review methodological guidelines to:
   1.a. Identify, collect, and select peer-reviewed literature describing experiences and best practices for decreasing biased language among health sciences professionals.
   1.b. Extract, synthesize, and analyze the findings of these studies.
2. Summarize and assess the results of the review and identify gaps in the literature and future areas of research regarding best practices for decreasing biased language among health sciences professionals.

II. Background Literature Review

Inclusive language usage is necessary to ensure patients build trust in their provider, feel supported in their care, and have the best health outcomes possible. In conducting an initial background literature review to determine if similar systematic reviews of the literature on this subject had been conducted, three main themes were found: diversity of terminology usage, a limited number of health issues in which inclusive language is addressed, and a need to integrate inclusive language practice in healthcare educational settings.

When looking at other previously conducted systematic reviews, there is a focus on language barriers in the delivery of care, such as not speaking the primary language or the primary dialect spoken in the health care system (Adorni et al., 2022; Gerchow et al., 2021; Hsueh et al., 2021; Madhi & Fielder, 2020). However, in exploring similar systematic reviews that have already been conducted in this area, I found that there was a gap in addressing other factors related to communication, more specifically addressing inclusivity in communication**.** Current systematic reviews also tend to focus on determining if there is an effect on patient health outcomes, however, few address what can be done to decrease harmful language usage (Deb Finn et al., 2021; Goddu et al., 2018; Raney et al., 2021).

Regarding commonalities across inclusive language research, the reviewed studies demonstrate a need for clarity and consensus on terminology. For example, some studies differentiate Person-Centered Care and Patient-Centered Care, while other studies choose to use these terms interchangeably. Current studies also demonstrate a need for further research in more healthcare medical areas, as this variance could help drive the importance of inclusive language usage across the entire healthcare system. Lastly, studies demonstrate a need for a change in educational practices and more action-oriented research. Much of the research shows that changes need to be made at an educational/training level to overcome a system stuck on non-inclusive language usage, while there is a lack of research on developing and implementing interventions to address this issue.

a. Terminology Usage:

One cause of confusion amongst healthcare professionals is the correct terminology usage (Håkansson Eklund et al., 2019). The development of terminology as a response to lack of inclusion has spanned decades (Håkansson Eklund et al., 2019). “Despite the rapid growing expansion of inclusive terminology and the inclusion of terms in health policy and research" (American Geriatrics Society Expert Panel on Person-Centered Care, 2016) there remains disagreement amongst the healthcare community on the most correct terminology or usage (Håkansson Eklund et al., 2019).

i. *Person-Centered Care vs. Patient-Centered Care*

Many suggest and acknowledge the need for inclusive language practices in healthcare settings (Consolandi, 2023); however, with the similar but different terms being used among those addressing the issue and the lack of agreement on which of these are preferred, researchers and other interested or involved parties are left trying to determine what is the best or most correct terminology to use. One common example of this situation are the terms Person-Centered Care and Patient-Centered Care. Some may argue that both terms are similar, using them interchangeably; however, a systematic literature review found that, while similar, the two terms have a stark difference in meaning and goal (Håkansson Eklund et al., 2019). A patient-centered perspective requires considering what is known about the patient and having a clear understanding of their history before forming a diagnosis and it is based on defining a patient as "someone who suffers" (Håkansson Eklund et al., 2019). The concept of person-centered care was developed to put less of a focus on the sick role "and more on the unique individual with an illness" (Håkansson Eklund et al., 2019). However, there is no consensus on which set of terms is best. While the Håkansson Eklund et al., article does a fantastic job of laying out the current literature using these terms, it is still unclear whether they should be used separately or interchangeably. Some authors deal with this problem by defining the two terms as synonyms, "Person-centered care (PCC), also known as patient-centered care" (Kim & Park, 2017). Additionally, there is a lack of agreement on the definitions of the two terms, with person-centered care defined by some as asking an individual their values and preferences and using them to guide all aspects of their care (American Geriatrics Society Expert Panel on Person-Centered Care, 2016).

ii. People-first language

Along with person-centered care, another term included when discussing inclusive care language is people-first language. In the 1970s "People First" became the first major "self-advocacy disability rights movement". This movement focused on people's individuality, uniqueness, and lived experiences. From this experience, the term "People First Language" was introduced. Twenty years later, person-first language was written into the Americans with Disabilities Act and the Individuals with Disabilities Education Act (U.S. Department of Health and Human Services, 2023). According to the CDC, People-first language "emphasizes the person first, not the disability" (Center for Disease Control and Prevention, 2022). The purpose of people-first language is to promote "understanding, dignity, and respect" and "avoid language that dehumanizes or stigmatizes" (U.S. Department of Health and Human Services, 2023). While the purpose of "person-first language" stems from a good place, it is also important to note that some within the disability community oppose this term due to the belief that "if language is needed to separate them from a trait, then that suggests the trait is negative" (U.S. Department of Health and Human Services, 2023). As 1 in 4 (61 million) Americans report living with some form of disability (Centers for Disease Control and Prevention, 2022), it is of the utmost importance to determine best practices for integrating the use of language that is sensitive, understanding, and respectful of a person's lived experiences into healthcare settings.

b. Inclusive Language Research in a Limited Number of Health Issues

Much of the research on inclusive language in healthcare focuses on a limited number of health topics. Many literature searches resulted in articles mainly about language usage related to dementia or weight loss.

The focus of inclusive language research on dementia could be related to the fact that the theory of person-centered care was formed in the context of dementia care and the need to "see the person" (Håkansson Eklund et al., 2019). According to Kim and Park, the aim of person-centered care, in the context of dementia, is to "maintain well-being and quality of life" (Kim and Park, 2017). In their article, they conducted a systematic literature review and meta-analysis and found intensive person-centered care significantly improved the quality of life in patients with dementia (Kim and Park, 2017). A similar systematic literature review and meta-analysis conducted by Lee et al., aimed to "review person-centered interventions used in the context of dementia care and analyze their effectiveness" (Lee et al., 2022). In their study, they concluded that "health care providers should consider person-centered interventions as a vital element in dementia care." (Lee et al., 2022). A third study conducted a systematic literature identifying 25 articles focusing on the delivery of person-centered dementia care. In this study, they concluded that delivering person-centered dementia care fostered a "positive environment for meaningful interactions between caregivers and care recipients" (Wu et al., 2022).

Many studies are also focused on the use of inclusive language and communication practices when discussing obesity. One study focusing on obesity aimed to evaluate the literature on the perspectives of patients and healthcare professionals and found that amongst both populations, the terms 'weight' and 'BMI' were preferred/least offensive, while terms such as 'obese', 'large sized', and 'fatness' were reported as stigmatizing and blameful (Auckburally et al., 2021). Another study done by Griffin et al., conducted a cross-sectional analysis spanning January 2004 to May 2021, to determine adherence to person-centered language (PCL) terminology, set forth by the American Medical Association Manual of Style and the International Committee of Medical Journal Editors, in weight focused journals (2023). It was found that of the 991 articles examined, only 24.02% adhered to PCL. “The most common non-PCL label was “obese” occurring in 75.48%”. It is important to note however, “PCL increased over time”, as the study was conducted over more than 15 years (Griffen et al., 2023). This does offer hope for the adoption of PCL into the healthcare practice.

A third study focused on patient preference for terminology. This study provided 168 adults who underwent bariatric surgery with 18 weight and eating-related terms and concluded that “many weight-related and loss-of-control eating terms are viewed as undesirable”, such as “fatness, excess fat, heaviness, and large size” (Ivezaj et al., 2020). The same study also suggested healthcare providers to “begin with neutrally related terms and ask patients about their language preference” (Ivezaj et al., 2020). This suggestion is not only beneficial for healthcare providers working in the field of bariatric surgery, but for healthcare professionals in every field.

There is some literature on language related research in the context of a few other health fields or topics. One example is a study discussing the importance of person-centered language in the field of amputation research, which aimed to determine the current adherence to PCL in scientific journals related to individuals with limb or digit amputations (Headley et al., 2022). Their results found that of the literature surveyed, only one third of scientific research adhered to PCL. This is an important statistic because in recent years the medical community has made strong recommendations to include PCL in written research (Truong et al., 2022). Another article conducted research concerning patients with medically unexplained symptoms (MUS). This article aimed to quantify language usage differences amongst practitioners and assess its relation to inducing patient anxiety (Stortenbeker et al., 2018).

In conclusion, while much is known about the necessity of PCL in healthcare, more research into its effects on patients facing different health issues is needed.

c. Lack of Action-oriented Inclusive Language Research

While many research articles aim to determine if there is a correlation or difference in patient health outcomes when using specific language, very few articles discuss interventions or solutions for this issue. Auckbrurally et al., state that there is “a need for greater support and provision of training for healthcare providers, such as education on communicating weight status” (Auckburally et al., 2021), whereas an article titled “*Resisting and unlearning dehumanizing language in nursing and healthcare practice, education and research: A call to action*”, discusses what it takes to overturn the traditional roles, practices, and terms used in the healthcare field (Truong et al., 2022). This article acknowledges that historically, health and scientific research have played “key roles in colonial missions”, reinforced racist ideologies and hierarchies, and used language to stigmatize (Truong et al., 2022). The article also calls out the historical impact science and healthcare have had on the disenfranchisement of marginalized communities and offers direct solutions on how to change. One important barrier mentioned in this article is that “healthcare workers and educators are unaware or uncertain of how to adapt their communication styles” (Truong et al., 2022).

The issue of inclusive language in healthcare settings has a long history and even further to go, and while it is recognized that it is necessary, many questions remain regarding its impact and implementation. This systematic review aims to add to the limited literature on inclusive language practices in healthcare and to address the current gap of systematic literature reviews synthesizing and assessing best practices for decreasing biased language. Documenting programs, trainings, and/or interventions related to inclusive language is needed as a step in the process of ensuring healthcare professionals create an inclusive and safe environment for all patients. Past systematic reviews agree that there is a correlation between language usage and patient health outcomes and show the need for more research on the extent to which language plays a part in determining health outcomes.

III. Methodology

The methodology for this study was a systematic search and review of relevant literature available through three health sciences databases: ProQuest Sociological Abstracts, PubMed, and ScienceDirect. Due to the nature of the project's aim, a "systematic search and review" type of review was an appropriately suited method to collect and evaluate peer-reviewed literature documenting and assessing best practices for language usage and health information communication in healthcare settings. According to a typology of reviews, a systematic search and review "combines the strengths of a critical review with a comprehensive search process" (Grant, 2009). This kind of approach allows for a holistic understanding of current best practices for decreasing biased language and be used to synthesize literature documenting different research methodologies used for best practices interventions or assessments. Thus, this review included biased language research that used qualitative and/or quantitative methods. Pre-existing qualitative studies were reviewed to identify the psychosocial context (including stigma) carried with the use of specific language by used by healthcare professionals. Likewise, pre-existing quantitative studies were reviewed to identify quantifiable changes in language usage, awareness, and attitudes over time. Overall, published datasets and case studies were used to develop a comprehensive systematic literature review detailing current best practices for decreasing biased language usage by health sciences professionals.

The Cochrane Review Method (Higgins et al., 2021) was used to guide this review's inclusion and exclusion criteria. Cochrane reviews base their findings on study results that meet specified inclusion and exclusion criteria. The Cochrane Review method is also used for the purpose of reducing the impact of bias throughout the review process. Additionally, the reporting of this systematic review was guided by the standards of the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) Statement (Sarkis-Onofre, et al., 2021)

a. Inclusion and Exclusion Criteria

The review adapted Cochrane's PICOC (*Population, Intervention, Comparison, Outcomes, and Context*) strategy for "defining review criteria, formulating questions and search strategies, and for characterizing included studies" (Higgins et al., 2021) with all key components of criteria determined before starting the review (Uman, 2011). The population of interest (P) was noted as Health Science (medicine, nursing, allied health) Professionals (healthcare providers). This was the chosen population of interest to determine healthcare professionals' perceptions and perceived effects of using inclusive or exclusive language in healthcare settings. Subsequently, studies not involving professionals from health science career fields were excluded. The interventions (I) included in the review mentioned programming or educational approaches used to reduce biased language usage. Both qualitative and quantitative studies were included. Studies were excluded if they lacked mention of language or communication. The inclusion criterion for comparison (C) was defined as studies using or lacking a comparative approach in their design. Study outcomes (O) were included if there was documentation and measurement of language bias (changes in communication patterns, attitude shift, change in patient outcomes), including interventional studies through qualitative or quantitative means. Studies not documenting language bias and/or measuring/intervening regarding a change in behavior or outcomes in the use of biased language among health professionals were excluded. Lastly, studies were included if their context (C) was noted as conducted in health-related settings, such as hospitals, health education environments/programs, and/or universities. If a study was not conducted in these settings or carried out in an unrelated field, it was excluded.

b. *Literature Search Strategy*

A comprehensive list of key terms related to each section of PICOC was used to identify relevant literature of interest to the systematic search and review. The search included terms within the titles or abstracts. Keywords and terms used in the search comprised four main terms: "*Bias language", "healthcare", "stigmatizing language", and "stigma"*. See Appendix 1 for a full list of key terms used when conducting the full database search. Key terms were entered into three databases: ProQuest Sociological Abstracts, PubMed, and ScienceDirect. Searches were filtered to only include research articles and were sorted in order of relevance. The first 80 populated titles and abstracts were screened. Relevant articles matching the inclusion criteria were then exported to a citation manger (EndNote) and from there exported to a web-based systematic review platform (Covidence) to streamline the process for abstract and full-text review.

c. *Screening, Extraction, and Review of Identified Literature*

i. Covidence platform

The Systematic Review was conducted via Covidence which is classified as a "systematic review tool" provided to students by the Emory University Libraries. Covidence is an "online platform designed to streamline the systematic review and meta-analyses process in academic research. This system allows individual researchers or research teams to collaborate efficiently through the multiple stages of the review process" (Covidence, 2022). Key features of Covidence includes importation, initial and full text screening, data extraction, risk of bias assessment, and customization and reporting. Overall, Covidence aims to simplify and accelerate the systematic review process, which is why it was selected for this review as the main systematic review tool.

ii. Management of Literature

To begin the Covidence review process, the platform requires users to input information about their review. The platform follows the Cochrane method of review. For this study settings were selected to two "reviewers required for screening", two "reviewers required for full text review" and one "reviewer(s) required for data extraction". The platform also allows the reviewers to set their preferred data extraction tool. For this review, "Extraction 2" was used because it supports single reviewer extractions.

The platform also gives the option to add a review team, cultivate team settings, and input specified eligibility (inclusion/exclusion) criteria. Due to Covidence using the Cochrane method, it also formats its eligibility criteria section under the Cochrane acronym PICOC. Lastly, the "study tags" function, which can be included at any point during the review process, was used to help organize/categorize literature or highlight specific aspects of a piece of literature.

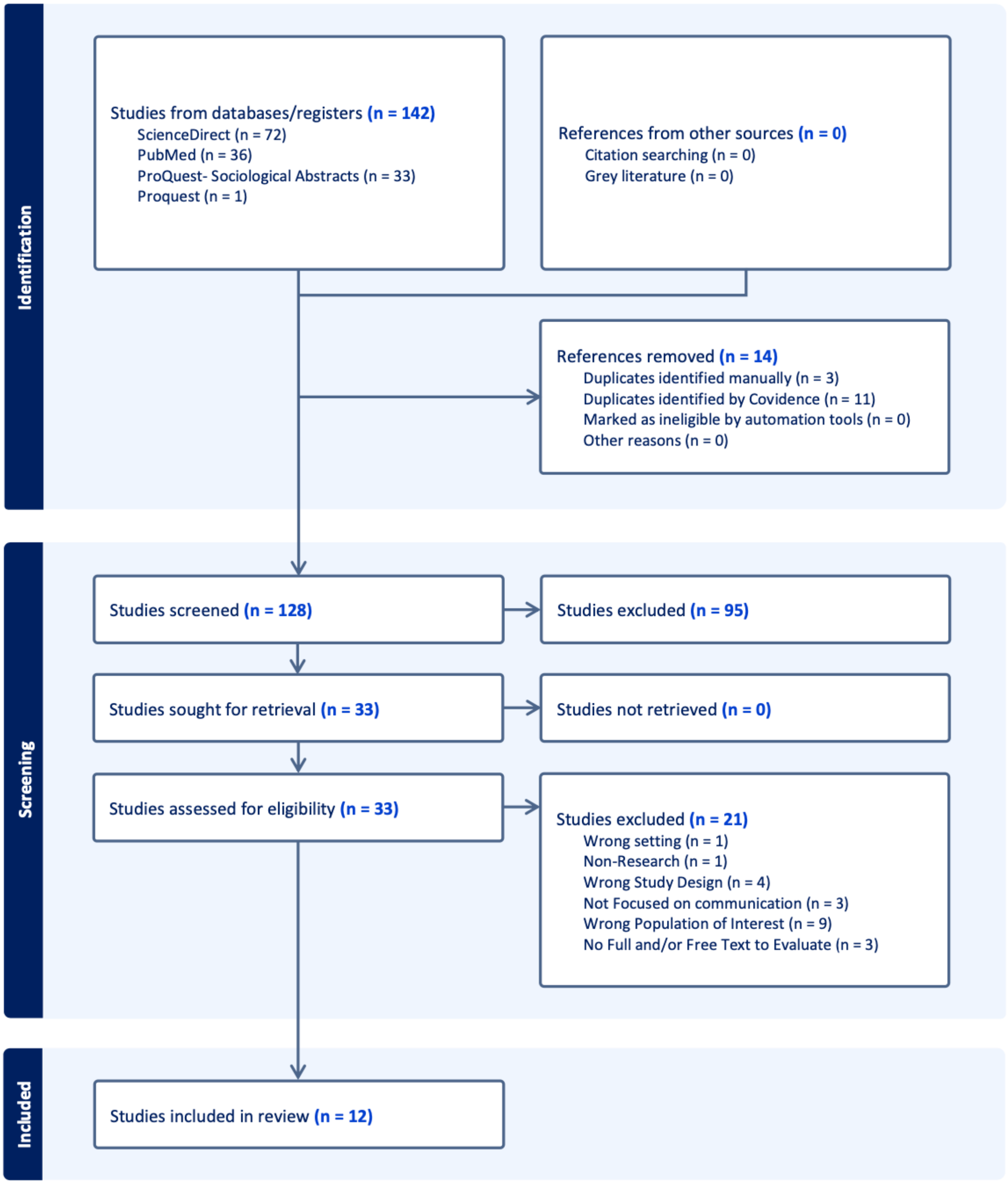
After arranging Covidence settings, the selected literature was imported. Identified studies were exported from the three databases used into EndNote citation manager. From EndNote an EndNote XML file was created and used to export sources into Covidence. This systematic review platform kept track of the number of sources used at each stage of the review process and automatically removed any duplicated items. At the initial import stage of this review, 142 studies were uploaded and 12 were removed due to being duplicates.

iii. Screening Process

Screening was conducted in two rounds. An initial title and abstract screening of 130 studies was conducted through Covidence by two independent reviewers. Independent notes were left by each reviewer and reviewers were instructed to leave study tags and/or mark the study as “Yes, Maybe, or No”. All studies marked by Covidence as having “conflicts” or marked as “maybe” fitting the eligibility criteria were then reevaluated and decided on by consensus between the two reviewers. Of the 130 studies that were initially screened, 95 were excluded due to the title or abstract not meeting the inclusion criteria. 35 studies met the inclusion criteria and were submitted to the next stage of the review process.

The next step of the review process consisted of a full-text review. This stage was also conducted independently by the same two reviewers. Two of the 35 studies were removed before the full-text review due to the inaccessibility of the full-text article. Reviewers left again notes and study tags on each of the remaining 33 pieces of literature as well as a specific reason for exclusion. Any conflicting reviews by researchers were resolved by consensus, like the previous review stage. 21 studies were found to not meet the inclusion criteria for various reasons as seen in Table 1. 12 studies were moved forward to the data extraction process.

Figure 1: PRISMA Flowchart- screening process



iv. Data Extraction

Data were extracted from 12 included studies following a systematic review process and using the web-based extraction tool Covidence. Data extraction was conducted independently by one reviewer using Covidence's Extraction 2 tool. Study characteristics included author(s), country of study, study design, study funding, conflicts of interest, sample size, participant demographics, intervention details, and outcome measures and were systematically recorded. Most studies were conducted in the US (n=9). One study was conducted in Canada, one in Australia, and one had been conducted in multiple countries across Europe. The 12 studies also varied in study designs including: Systematic Literature Reviews (2), Cross Sectional Studies (4), Qualitative Research (4), and Randomized Control Trials (2). Many studies utilized e-mail to recruit human participants and databases such as Medline and PubMed to conduct literature reviews. Studies also varied in date and duration ranging from January 2014 to June 2021.

d. Data Management

Risk of bias was assessed and mitigated by two independent reviewers to conduct the review. Both reviewers received and individually conducted a title and abstract screen, followed by a full-text screen of the selected literature. Have independent reviewers allowed for two separate comparisons, in turn mitigating the risk of reviewer bias in the scientific literature review.

e. Data Synthesis and Analysis

Data were synthesized and analyzed using the Covidence systematic review tool to conduct a qualitative synthesis and a thematic analysis. Using the Covidence data extraction template, each piece of literature was analyzed using the categories "General Information", "Study Characteristics", "Participants", and "Outcomes".

"General information" consisted of a study ID, the title, the lead author, the country the study was conducted in, the type of publication, funding source(s), author conflicts of interest, and additional notes. The "Methods" section of the data extraction template consists of the aim of the study, the study design, the start and end date of the study, the method of recruitments, theoretical frameworks used, trainings or interventions implanted, and finally the inclusion of patient-centered language in the text. The general information and study characteristics sections were then condensed to create "*Table 2. Key Characteristics Found in Included Studies".*

The next section of the data extraction template was labeled "Participants". This section consisted of a population description (included but not limited to age, sex, race/ethnicity), health conditions, inclusion and exclusion criteria, total number of participants, health professional and patient characteristics. The last category was "Outcomes". This section included method of outcomes, outcomes measured, primary and secondary outcomes reported, key conclusions, and references to relevant studies. The participant and outcomes sections were then condensed to create "*Table 3. Participant Characteristics and Inclusion/Exclusion Criteria in Included Studies".*

Any information not found in the studies were listed in the table as "N/A" for not applicable.

f. Ethical Considerations

Institutional Review Board (IRB) approval was not needed for this literature review because it does not involve direct interaction with human subjects or the collection of primary data from human participants. However, "The reporting of this systematic review was guided by the standards of Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) Statement (PRISMA, 2022).

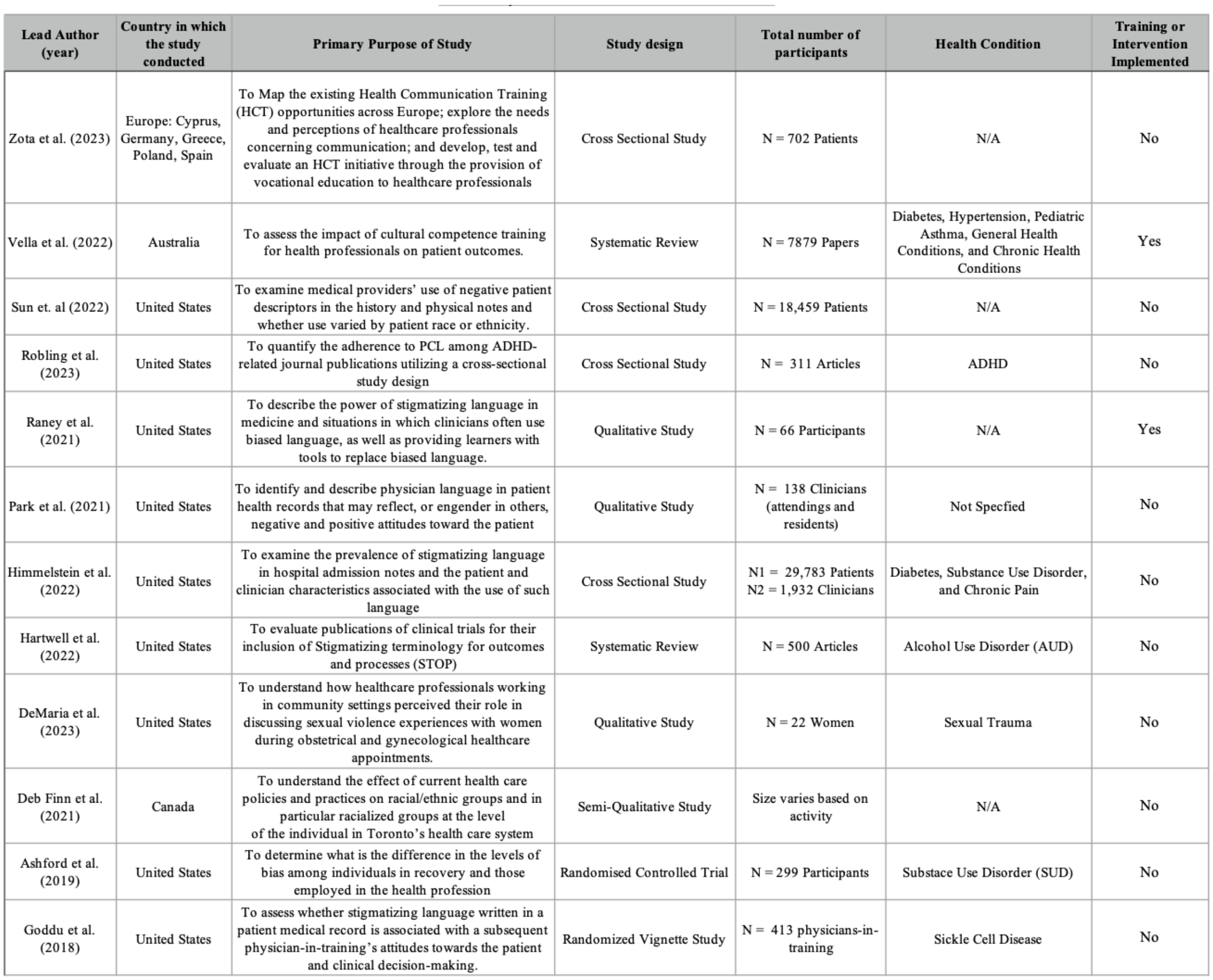
IV. Results

A total of 128 papers were identified and included in the title and abstract screening. This first screening resulted in 33 articles eligible for full-text screening, with 12 meeting full eligibility requirements. Of these 12 articles nine had research based in a US context, one in a European context, one was in the Australian context, and one in the Canadian context. There was also ample variation in study designs, showing the diversity of research surrounding inclusive language. Four studies had a cross-sectional study design, three studies were qualitative research (interviews), two were systematic reviews, one was semi-qualitative, one was a randomized control trial, and one was a randomized vignette study.

Studies had some diversity of participants; however, the majority (eight) surveyed patients as their population of choice. Of the 12 eligible studies, only three studies aimed to specifically determine how physicians and physicians in training view their usage of language and the effects it has on their patients. Six of the reviewed studies focused on specific health conditions including diabetes, hypertension, pediatric asthma, chronic pain, AUD, and SUD. The remaining six reviewed studies did not specify a health condition.

None of the studies included a clear definition of person- or patient-centered care. Rather, they noted or studied the effects of language usage in healthcare settings. Two studies set out to determine what literature is available on cultural competence training and evaluate how stigmatizing terminology has been found in clinical studies. Three studies used medical records and notes to determine how physicians and healthcare providers document patient health conditions using positive or negative descriptors. Two studies specifically aimed to address how bias plays a role amongst those in recovery. While other articles did not specifically mention bias, they did aim to assess the attitude of health professionals and how that may affect a person’s care and recovery.

Table 1. Key Characteristics Found in Included Studies



Lead Author (year)	Country in which the study conducted	Primary Purpose of Study	Study design	Total number of participants	Health Condition	Training or Intervention Implemented
Zota et al. (2023)	Europe: Cyprus, Germany, Greece, Poland, Spain	To Map the existing Health Communication Training (HCT) opportunities across Europe; explore the needs and perceptions of healthcare professionals concerning communication; and develop, test and evaluate an HCT initiative through the provision of vocational education to healthcare professionals	Cross Sectional Study	N = 702 Patients	N/A	No
Vella et al. (2022)	Australia	To assess the impact of cultural competence training for health professionals on patient outcomes.	Systematic Review	N = 7879 Papers	Diabetes, Hypertension, Pediatric Asthma, General Health Conditions, and Chronic Health Conditions	Yes
Sun et. al (2022)	United States	To examine medical providers' use of negative patient descriptors in the history and physical notes and whether use varied by patient race or ethnicity.	Cross Sectional Study	N = 18,459 Patients	N/A	No
Robling et al. (2023)	United States	To quantify the adherence to PCL among ADHD-related journal publications utilizing a cross-sectional study design	Cross Sectional Study	N = 311 Articles	ADHD	No
Raney et al. (2021)	United States	To describe the power of stigmatizing language in medicine and situations in which clinicians often use biased language, as well as providing learners with tools to replace biased language.	Qualitative Study	N = 66 Participants	N/A	Yes
Park et al. (2021)	United States	To identify and describe physician language in patient health records that may reflect, or engender in others, negative and positive attitudes toward the patient	Qualitative Study	N = 138 Clinicians (attendings and residents)	Not Specfied	No
Himmelstein et al. (2022)	United States	To examine the prevalence of stigmatizing language in hospital admission notes and the patient and clinician characteristics associated with the use of such language	Cross Sectional Study	N1 = 29,783 Patients N2 = 1,932 Clinicians	Diabetes, Substance Use Disorder, and Chronic Pain	No
Hartwell et al. (2022)	United States	To evaluate publications of clinical trials for their inclusion of Stigmatizing terminology for outcomes and processes (STOP)	Systematic Review	N = 500 Articles	Alcohol Use Disorder (AUD)	No
DeMaria et al. (2023)	United States	To understand how healthcare professionals working in community settings perceived their role in discussing sexual violence experiences with women during obstetrical and gynecological healthcare appointments.	Qualitative Study	N = 22 Women	Sexual Trauma	No
Deb Finn et al. (2021)	Canada	To understand the effect of current health care policies and practices on racial/ethnic groups and in particular racialized groups at the level of the individual in Toronto's health care system	Semi-Qualitative Study	Size varies based on activity	N/A	No
Ashford et al. (2019)	United States	To determine what is the difference in the levels of bias among individuals in recovery and those employed in the health profession	Randomised Controlled Trial	N = 299 Participants	Substace Use Disorder (SUD)	No
Goddu et al. (2018)	United States	To assess whether stigmatizing language written in a patient medical record is associated with a subsequent physician-in-training's attitudes towards the patient and clinical decision-making.	Randomized Vignette Study	N = 413 physicians-in-training	Sickle Cell Disease	No

a. *Recruitment and Data Collection of Included Studies*

Three studies used e-mail as their main method of participant recruitment. Two studies used a data mart or national registry to find patients who met their inclusion criteria. Two studies used purposive sampling to select participants based on characteristics that represent the larger population they chose to study. Lastly, the three systematic literature reviews used a mix of databases including MEDLINE, CINAHL, PubMed, PsycINFO, and ERIC.

b. *Study Participant Characteristics of Included Studies*

Six studies aimed to have sample sizes and characteristics representative of the population of the country of study. Four studies mentioned having participants identifying as white/Caucasian, followed by Black/African American, and then Hispanic. Three studies also mentioned the majority of their participants identifying as female. Six of the 12 articles included healthcare workers and patients as participants in their study, while three of the 12 articles solely focused on healthcare workers. Participants across studies also varied in age, ranging from 25 years old to 47 years old.

c. *Inclusion and Exclusion Criteria of Included Studies*

Inclusion criteria listed in the 12 articles consisted of patients, health professionals, or a mixture of both. Six studies included health professionals (including medical residents). Eight of the 12 studies involved patients or the medical records of patients. The majority (nine) of the articles had unique exclusion criteria such as not specifically stating age or health specialty, not speaking English, or not working in a community healthcare setting. The remaining three articles had exclusion criteria consisting of specific dates such as papers published prior to 2010 (Vella et.al), medical records not written in 2017 (Park et al.), and patients not admitted in 2018 (Himmelstein et al.). Other exclusion criteria included age specification, health condition qualifications, or a specific setting (for example, a community healthcare setting) that led to disqualification from their study.

Table 2. Participant Characteristics and Inclusion/Exclusion Criteria

Lead Author (year)	Method of recruitment of participants	Population Characteristics	Inclusion criteria	Exclusion criteria
Zota et al. (2023)	E-Mail	About 64% of the sample was female. Most participants were employed in Greece (21.2%). The majority were physicians (45%), followed by nurses, other allied health professionals (i.e., psychologists, paramedics, health administration staff, nursing assistants, social workers, dentists/dental hygienists, dietitians/nutritionists, health promotion specialists, public health specialists) and students from health-related sectors.	Physicians, nurses, other allied health professionals (i.e., psychologists, paramedics, health administration staff, nursing assistants, social workers, dentists/dental hygienists, dietitians/nutritionists, health	Participants who did not specify health specialty/training or age
Vella et al. (2022)	Databases: MEDLINE Complete, CINAHL, APA PsycINFO, and ERIC	Qualified and/or undergraduate health professionals participating in a cultural competence training intervention.	All forms of training (in person, online, single session, multiple sessions) designed to support the development of cultural competence in health professionals were considered eligible.	- Papers published prior to 2010, which did not report an intervention and did not report patient outcomes. - Grey literature, Opinion, editorial, dissertations, and/or conference papers - Papers not available in English were excluded
Sun et. al (2022)	COVID-19 Data Mart	Almost one-third (29.7 percent) of the patients were White, 60.6 percent were Black, 6.2 percent were Hispanic or Latino, and 3.5 percent were categorized as other. The mean age was 47.4 years (SD23.0; data not shown), and 56.0 percent were	All patients treated in an ED or inpatient setting between April 30, 2020 and October 1, 2020.	Patients with International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10), codes for dementia (n = 647),
Robling et al. (2023)	Systematic Search of PubMed, which encompasses MEDLINE	Of the articles, original research (93.6%), and case reports or editorials (6.4%). The majority of the articles by type of research were cross-sectional (237/311; 76.2%) and were funded through grants (168/311; 54.0%). Out of the remaining articles, 12 were clinical trials (3.9%), 19 were literature reviews (6.1%), 12 were not research articles (3.9%), and 31 were systematic reviews (10.0%)	- Non-person centered language (PCL) terminology - Peer-reviewed and focused on children with ADHD - Articles were included in our study if they were original research articles, including research letters, brief reports, case reports, and editorials focused on ADHD pertaining to humans.	Adult populations, unrelated to ADHD, not in English, and not involving human research
Raney et al. (2021)	Not Specified	The target population is broad, including any provider, trainee, or staff member who works with patients in a clinical environment.	All health professionals caring for patients and documenting in the electronic medical record, including novice learners	Health professionals not documenting in electronic medical records
Park et al. (2021)	Random selection	Most patients were identified in the medical record as female (n = 350 [69%]). Most patients were identified as Black/African American (n = 406 [80%]), and 76 (15%) were identified as White	Patient medical records that had been written by physicians (attendings and residents) in 2017 at an ambulatory internal medicine setting at an urban academic medical center	Patient medical records not written in 2017
Himmelstein et al. (2022)	Free-text admission notes of all patients admitted to a large academic medical center in 2018	the 29,783 patients had a mean (SD) of 46.9 (27.7) years and 17 334 (58.2) were female, 840 (2.8%) were Hispanic patients, 1033 (3.5%) non-Hispanic Asian patients, 2498 (8.4%) were non-Hispanic Black patients, 18 956 (63.6%) were non-Hispanic White patients, and 1394 (4.7%) were another race (including American Indian or Alaskan Native and Hawaiian or Pacific Islander), and 2939 (9.9%) preferred a language other than English	All patients admitted to a large academic medical center in 2018	Patients admitted to a non-academic medical center or patients not admitted in the year 2018
Hartwell et al. (2022)	Systematic search of PubMed for AUD clinical trials	Among the 147 included articles, 73 (49.66%) used behavioral interventions, 45 (30.61%) used pharmacologic treatments, 25 (17.01%) used devices, and 4 (2.72%) were grouped as Other. A majority of studies were grant-funded (117/147; 79.59%)	- publications of primary or secondary results from clinical trials of alcohol use interventions including AUD and heavy or binge drinking - Binge or heavy drinking studies were included when the publication operationalized and reported these terms. - We included trials in any phase assessing feasibility, safety, or efficacy of pharmacologic treatments, devices, behavioral interventions, or other medical treatments. - Studies must have been published between January 1, 2017 and June 30, 2021, and be available in English.	Publications not focused on AUD
DeMaria et al. (2023)	Email, Purposive Sampling, Snowball Sampling	Average Age- 25.8 ± 5.3; Race: White/Caucasian- 12 (54.5%); Black/African American - 7 (31.8%) Education: Some College or Undergraduate Degree - 13 (59.1%); Graduate Degree- 5 (22.7%) Employment: Student- 10 (45.5%); Full-Time- 11 (50.0%)	- Women were eligible to participate in the study if they were 18–45 years of age and had ever sought reproductive healthcare at a community health center or program in Indiana - Non-physician healthcare professionals (i.e., NP, RN, CNM, doula, pharmacist, chiropractor) were eligibale if they were lliving in Indiana who worked in a community healthcare setting	Not working in a community healthcare setting
Deb Finn et al. (2021)	Purposive Sampling	Of the participants that completed the rating activity (n= 72), 41 participants identified as racialized health care users, 23 participants identified as non-racialized health care users, and 11 participants identified as either a ra- cialized or non-racialized health care provider. Of the 41 racialized health care users, 25 participants identified as female and 22 identified as Canadian-born	Recruited health care users were participants who had had a negative experience in Toronto or the GTA health care system within the past 5 years, age 16 years or older, and were able to write in English Recruited health care providers were front line providers (e.g. nurse, doctor, social worker, and pharmacist) who had at least 1 year of practice experience working in Toronto or the GTA	Participant eligibility was group specific
Ashford et al. (2019)	Research Match- a national health volunteer registry. An email was sent to participants found in the registry	Participants had a mean age of 46.29 years (SD = 15.19), with the majority identifying as female (n = 225 / 75.3%), white (n = 271 / 90.6%), and either married or in a domestic partnership (n = 155 / 51.8%). Many participants had either a post-graduate degree (n = 135 / 45.2%) or a 4-year degree (n = 103 / 34.4%), were employed (n = 210 / 70.2%), and had a last year income over $50,000 (n = 200 / 66.9%). Less than a third of participants were in recovery (n = 87 / 29.1%)	Volunteers that elected to receive more information about the study	Random volunteers who did not respond
Goddu et al. (2018)	E-Mail	Of the 413 study participants (54% response rate), 42.8% were female, 43.5% were residents, and 14% were Hispanic/Latino. Most respondents were white (54.7%), 26.9% were Asian, and 10.4% identified as black or African American.	Residents in the medical center's two internal medicine (IM) programs and one emergency medicine (EM) program	Non-residents

d. *Measures and Outcomes of Studies*

An array of outcomes was measured amongst the 12 eligible articles (see Table 3). The two systematic literature reviews by Robling et al. and Hartwell et al., aimed to determine if non-person-centered language can still be found in scientific research, reported that less than 50% of eligible articles adhered to the person-centered language. In two studies reviewing physician or healthcare worker notes (Park et al., 2021 and Himmelstein et al., 2022), it was found that negative descriptors such as “questioning credibility”, “disapproval”, and “difficult patient” were noted. One study also found that “black patients had 2.54 times the odds of being described with one or more negative descriptors” (Sun et. al, 2022). Lastly, only one study aimed to implement a training workshop in which “actionable skills for replacing biased language in clinical presentations and electronic health records” were provided (Raney et al., 2021).

e. *Key Conclusions of Included Studies*

The conclusions at which the twelve studies arrived can be broken into two large thematic categories: 1) a need for increased language training of healthcare professionals and 2) racial bias. Four of the 12 studies mention the need for training aimed at using person-centered language. The study by Zota et al. concluded that many healthcare professionals have not received health communication training, which was proven beneficial to “patient relations, professional satisfaction, patient satisfaction, trust, and medication adherence” (Zota et al., 2023). It was also determined that language training for health professionals can help address health disparities experienced by diverse populations (Vella et al., 2022). Though only one study directly set out to determine the effects of racial bias, three studies found that race plays a part in the language used by healthcare professionals. Findings showed that stigmatizing language appeared in patient admission notes more often when describing non-Hispanic Black patients than non-Hispanic White patients (Himmelstein et al., 2022). In the Deb Finn et al. (2021) study, participants reported race/ethnic based discrimination as a large contributor to the challenges experienced when receiving care. Patients who have difficult interactions with clinicians may perceive that they are not receiving quality care and are at risk of distrusting their care team.

Table 3. Measurements and Outcomes in Included Studies

Lead Author (year)	Method of Outcome	Outcomes Measured	Primary Outcomes Reported	Secondary Outcomes Reported	Key Conclusions of Authors
Zota et al. (2023)	Online questionnaire, comprising 35 close-ended questions	Benefits, barriers and outcomes of effective health communication from the point of view of healthcare professionals	Physicians appear to be less concerned about communication skills, the barriers and facilitators of effective communication and perceived outcomes of successful communication	N/A	- Many healthcare professionals have yet to receive HCT, even though almost everyone identifies the beneficial effect of successful health communication on improved professional–patient relations, professional satisfaction and patient satisfaction, trust and medication adherence
Vella et al. (2022)	Assessed via self-report or medical record data	Outcomes could be satisfaction with/perception of health professional's cultural competence, treatment adherence or a health outcome	Overall, considering no significant improvements were demon-strated in patient outcomes, no clear link between the effectiveness of cultural competence training and patient health has been established in any of the five reviewed studies.	N/A	- Cultural competence training is considered essential for health professionals. - Health disparities experienced by diverse populations may be addressed by cultural competence training for health professionals. - Few studies assess the impact of cultural competence training on patient health outcomes. - Heterogeneity of approaches may limit understanding of the link between cultural competence training and patient health outcomes.
Sun et. al (2022)	Natural language processing and machine learning	The occurrence of at least one negative descriptor in a patient's history and physical note	In total, 8.2 percent of patients had one or more negative descriptors recorded in the history and physical notes in their EHR	Black patients had 2.54 times the odds of being described with one or more negative descriptors in the history and physical notes of their EHRs, even after we adjusted for their sociodemographic and health characteristic	This difference may indicate implicit racial bias not only among individual providers but also among the broader beliefs and attitudes maintained by the health care system
Robling et al. (2023)	Google Sheets were utilized for screening and extraction purposes for the randomized search return	(1) type of article: original (full) article (including brief report or research letters), case reports, or editorial; (2) type of research: systematic review, clinical trial, cross-sectional, etc; (3) type of intervention (pharmacologic, nonpharmacologic, or no treatment); (4) employment type of first and last author: private, public, or government; (5) funding statement/source	31 of the 311 (42.1%) articles were adherent to PCL guidelines	The use of non-PCL may reinforce stigma surrounding children with ADHD and may negatively impact the way that care is provided to the child and may influence their mental health and social lives	Over half of the current ADHD literature did not adhere to PCL guidelines.
Raney et al. (2021)	Course Evaluation	Data familiarization, identifying themes, developing and applying a coding scheme, and organizing codes and themes.	Most believed the workshop met its objectives (4.8 out of 5.0) and strongly agreed that they would apply skills learned (4.8)	N/A	Workshop provided actionable skills for replacing biased language in clinical presentations and electronic health records
Park et al. (2021)	Encounter notes	Common linguistic characteristics reflecting an overall positive or negative attitude toward the patient	Five negative language categories: questioning credibility, disapproval, stereotyping, difficult patient, and unilateral decisions Six positive language categories: compliment, approval, self-disclosure, minimizing blame, personalize, and bilateral decision making	N/A	This qualitative study found that physicians express negative and positive attitudes toward patients when documenting in the medical record Patients who have difficult interactions with a clinician may perceive that they are not receiving high-quality, patient-centered care, and may be at risk of distrusting or disengaging from care
Himmelstein et al. (2022)	Admission Notes	Stigmatizing language	Stigmatizing language appeared in 1197 of all 48 651 notes (2.5%); diabetes-specific stigmatizing language appeared in 599 notes for patients with diabetes (6.9%); language stigmatizing substance use appeared in 209 notes for patients with substance use disorder (3.4%); 37 notes for patients with chronic pain included stigmatizing language regarding pain (0.7%)	Across all medical conditions studied, stigmatizing language appeared more frequently in notes written about non-Hispanic Black patients	Although the stigmatizing language we assessed appeared infrequently, it has the potential to unnecessarily alienate patients and influence subsequent clinicians. Findings suggest that stigmatizing language appears in patients' EHR admission notes, varies by medical condition, and is more often used to describe non-Hispanic Black than non-Hispanic White patients. Therefore, efforts to understand and minimize the use of stigmatizing language might improve patients' care and their trust in their clinicians
Hartwell et al. (2022)	Pilot-tested Google Sheet	1. total number of journals and articles returned from PubMed 2. the number of studies that were screened 3. the number of studies that were included based on the eligibility criteria from each selected journal	32 of 147 (21.76%) of articles were free of stigmatizing process and outcomes language	N/A	- The current study identified the inclusion of STOP within nearly 80% of clinical trial publications for alcohol interventions - our study demonstrates a pervasive use of stigmatizing language within medical literature for AUD, which may lead to poorer health outcomes, lower problem recognition and treatment engagement, and fewer people seeking treatment options
DeMaria et al. (2023)	Semi-structured protocol focus groups and key-informant interviews	perspectives, novel experiences, and shared knowledge	There were three resulting themes: (1) healthcare professionals' approaches to screening for a history of sexual assault varied depending on the providers' work setting and their field; (2) healthcare experiences can compound traumatic experiences and create professional distrust with survivors; (3) sexual assault impacts patient healthcare experiences through the services they seek, how professionals interact with them, and type of professional they are willing to see.	N/A	One strength of this study was the inclusion of doulas. Doulas may gain additional patient context that a healthcare professional can use, with patient permission, to increase sensitivity to women's needs in their birth experience Incorporating healthcare professionals' and patients experiences and preferences for sexual assault-related discussions during routine obstetrical and gynecological care can assist in sexual assault prevention and treatment efforts, improve patient-professional rapport, and yield better health outcomes
Deb Finn et al. (2021)	Concept Mapping using Concept System® Global MAXTM software	Understanding complex the experiences of the target population	Racialized health care users reported that access to and quality of medical care are challenges cur- rently experienced in Toronto's health care system	N/A	- Racialized health care users from Toronto (Canada's largest city) and the Greater Toronto Area, reported 'race'/ethnic based discrimination as largely contributory to the challenges experienced when receiving care. - Racialized health care users also prioritized unequal access to medical care for taking action/change
Ashford et al. (2019)	Scoring of the GNATs was done using the d-prime (d') method. The method calculates sensitivity, indexed by d', by converting the proportion of correct responses for signal items and incorrect responses for noise items into z-scores and then calculating the difference between the z-score value	Recovery status and employment types effects on views of SUD terminology	Descriptive statistics showed that while participants not in recovery had stronger associations than participants in recovery with most linguistic choices (addict + good M = 1.66; SUD + good M = 1.61, SUD + bad M = 2.10), that participants in recovery had stronger associations than participants not in recovery for addict + bad (M = 2.58).	health professional participants had stronger associations than non-health professional participants for all linguistic choices, with mean differences of .511 for substance abuse + good, .431 for substance abuse + bad, .248 for SUD + good, and .145 for SUD + bad.	- The labels that are often used to identify and describe individuals with a SUD or in recovery can often be stigmatizing. - Terms such as "addict' and "substance abuser" are also associated with greater levels of bias among individuals in recovery and health professionals. - Health professionals, having greater levels of negative association with stigmatizing terms, should commit to improving their linguistic choices in all manner of communication.
Goddu et al. (2018)	Qualtrics survey platform	Attitudes towards the hypothetical patient and pain management decisions (residents only	Exposure to the stigmatizing language note was associated with more negative attitudes towards the patient (20.6 stigmatizing vs. 25.6 neutral, $p < 0.001$)	reading the stigmatizing language note was associated with less aggressive management of the patient's pain (5.56 stigmatizing vs. 6.22 neutral, $p = 0.003$)	Stigmatizing language used in medical records to describe patients can influence subsequent physicians-in-training in terms of their attitudes towards the patient and their medication prescribing behavior

V. Discussion & Limitations

Discussion

This systematic literature review aimed to identify, synthesize, and assess existing literature on best practices (strategies and interventions) for inclusive language usage by healthcare professionals. After assessing and analyzing 12 eligible studies in this systematic literature review, two thematic categories were identified: a) the need for more research with a focus on interventions (programmatic workshops and trainings) for language related to the communication between healthcare providers and people receiving care; and b) the effects of racial bias on language usage in healthcare settings. The themes found in this systematic literature are similar to the themes found in the background literature review as those studies found terminology usage and lack of action-oriented research to be two concerning problems.

a. More research & training on inclusive language

Despite the importance of terms such as “person-centered care”, “patient-centered care”, and “person-first language” in increasing inclusivity in healthcare and scientific research settings (Håkansson Eklund et al., 2019; NIH, 2023), out of the 33 studies reviewed in this systematic literature review, zero addressed the question of which of these terms is “preferred’ in the context of inclusive language in healthcare. This is important to note because the absence of consensus on best practices for terminology to be used in inclusive language research demonstrates a key need in the field.

One of the articles included in this study’s background literature review suggested beginning with neutrally related terms and asking patients about their language preferences as good practice for inclusive communication in healthcare settings (Ivezaj et al., 2020). Beginning with neutral terms and allowing the patient to express their preferences builds patient trust. This allows the patient to know they have a voice in their healthcare journey and process. Patient-provider trust is essential because the chances of better health outcomes and correct medicine usage or practice increase (Raney et al., 2021; Vella et al., 2022; Zota et al., 2023).

Furthermore, three of the 12 included studies also highlighted that there is a great need for formal training of current and future healthcare workers on inclusive language practices. It is important that healthcare providers are trained on how to use inclusive language because of its potential to increase the quality of care a patient may receive. As discussed in the background literature review, action-oriented interventions aimed at transitioning from non-person-centered language to person-centered language are lacking (Auckbrurally et al., 2021; Deb Finn et al., 2021; Goddu et al., 2018; Raney et al., 2021; Truong et al., 2022). Similarly, the Raney et al. article, included in the twelve articles reviewed for this study, concluded that workshops need to provide actionable skills for replacing biased language (2021). The articles in this systematic review showed that when offered workshops and trainings, healthcare professionals were more willing to apply the skills they learned into practice. Implementing workshops could be as simple as hospitals hosting trainings to help healthcare professionals meet or keep accreditations, inclusive language workshops at conventions or conferences, and inclusive language pamphlets or guidebooks that professionals could keep on their lanyards, ID badges, or in their pockets. Once actionable skills and tools are made accessible to healthcare professionals, further research should be conducted to identify the usage of tools and the overall success of implementations, such as the ones previously mentioned, in healthcare and scientific settings.

b. Effects of racial bias on language usage

Lastly, there is a great need to address systematic racism in the healthcare system. Historically inaccurate stereotypes and biases have harmed marginalized communities in healthcare settings, stigmatizing them with, for example, the use of negative descriptors in medical notes. One of the 12 reviewed studies found that “black patients had 2.54 times the odds of being described [in medical notes] with one or more negative descriptors” (Sun et. al, 2022). Implicit bias and negative language, whether spoken or written, have a chance to harm patient recovery, patient-provider trust, and overall quality of care. Patients are unlikely to return to providers who they feel do not have their best interest at hand. This could lead to prolonged periods before seeking treatment, leading to worse health outcomes or distrust in the healthcare system overall. As mentioned in the Vella et al. article included in this study, cultural competence training is essential for health professionals (2022). This type of training or curriculum can help address stigmatizing or harmful language usage in healthcare settings. Despite the growing increase in knowledge amongst healthcare providers on person-centered care, this review suggests that much more research and implementation is needed to achieve greater inclusivity in healthcare settings.

Limitations

While many precautions were taken to ensure quality research was conducted, at least two limitations are still plausible. The first limitation is an incomplete retrieval of studies. Only the first 80 relevant studies resulting from each systematic search were reviewed. While the article search was set to display “most relevant first”, it is recognized that studies past 80 could have still been relevant to the search criteria. A second study limitation is the constant update of knowledge. While this systematic literature review is based on the availability of literature at the time of search (December 2023), it is important to recognize that literature is constantly evolving and what may be available in the present is likely to be more than what was present at the time of search.

VI. Conclusion

It is vital that healthcare providers new and old are trained on how to use inclusive language. While it may seem daunting at first, the transition has the potential to increase the quality of care a patient may receive. Influential institutions such as the American Medical Association and the World Health Organization have called on healthcare professionals to begin using inclusive language, however, if healthcare educators are not taught how to properly incorporate this into their practice, how will the next generation of healthcare providers make the same change? For future healthcare practitioners still in school or training, the implementation of inclusive language practices into their curriculum can be an easy way to get new healthcare professionals to practice using inclusive care language. For current practicing healthcare providers, trainings, lessons, and demonstrations at healthcare conventions, or continuing education events can serve as a medium to introducing inclusive care language into their practice.

Furthermore, systematic racism in the healthcare system has created biases, barriers, and divides that have disproportionately affected minority populations. These biased notions have appeared in language and treatment of patients, negatively affecting the overall health outcomes. More work needs to be done to ensure future generations of healthcare providers are properly equipped with the tools, practices, and terminology necessary to implement inclusive care for all groups in society.

VII. Public Health Implications and Recommendations

Increasing inclusive language usage in healthcare settings can have far-reaching implications for patient-provider relationships and overall healthcare outcomes. By adopting language that respects one’s identity and experience, healthcare professionals can create environments where patients feel valued, trusted, and understood. Studies show this can lead to adherence to treatment plans, reduce healthcare disparities, and increase patient satisfaction. Moreover, inclusive language usage can start to break systematic barriers that have historically led to inequality and perpetuated healthcare disparities.

Furthermore, enhancing person-centered language usage in healthcare settings demands multifaceted strategies. First off, comprehensive training programs must be put in place for healthcare professionals. Programming needs to involve cultural humility and bias on-going training as well as effective and appropriate communication techniques, tailored to the populations they will serve. These programs should be supplemented with clear guidelines and policies for using inclusive language when asking about a patient's health history or writing in their chart. Studies have shown that training and support of current healthcare workers, as well as those who are in training, are essential to effectively implement inclusive language strategies in healthcare settings.

VIII. References

A, P. G., O'Conor, K. J., Lanzkron, S., Saheed, M. O., Saha, S., Peek, M. E., . . . Beach, M. C. (2018). Do Words Matter? Stigmatizing Language and the Transmission of Bias in the Medical Record. *J Gen Intern Med*, *33*(5), 685-691. https://doi.org/10.1007/s11606-017-4289-2

Adorni, R., Manzi, C., Crapolicchio, E., & Steca, P. (2022). The role of the family doctor's language in modulating people's attitudes towards hearing loss and hearing aids. *Health Soc Care Community*, *30*(5), e1775-e1784. https://doi.org/10.1111/hsc.13606

Albury, C., Strain, W. D., Brocq, S. L., Logue, J., Lloyd, C., & Tahrani, A. (2020). The importance of language in engagement between health-care professionals and people living with obesity: a joint consensus statement. *The Lancet Diabetes & Endocrinology*, *8*(5), 447-455. https://doi.org/https://doi.org/10.1016/S2213-8587(20)30102-9

American Geriatrics Society Expert Panel on Person-Centered Care (2016). Person-Centered Care: A Definition and Essential Elements. *Journal of the American Geriatrics Society*, *64*(1), 15–18. https://doi.org/10.1111/jgs.13866

Ashford, R. D., Brown, A. M., McDaniel, J., & Curtis, B. (2019). Biased labels: An experimental study of language and stigma among individuals in recovery and health professionals. *Subst Use Misuse*, *54*(8), 1376-1384. https://doi.org/10.1080/10826084.2019.1581221

Auckburally, S., Davies, E., & Logue, J. (2021). The Use of Effective Language and Communication in the Management of Obesity: the Challenge for Healthcare Professionals. *Curr Obes Rep*, *10*(3), 274-281. https://doi.org/10.1007/s13679-021-00441-1

Boolchandani, H., Chen, L., Elder, R. W., Osborn, R., Phatak, U. P., Puthenpura, V., . . . Langhan, M. L. (2024). Identifying Gender and Racial Bias in Pediatric Fellowship Letters of Recommendation: Do Word Choices Influence Interview Decisions? *The Journal of Pediatrics*, *265*, 113843. https://doi.org/https://doi.org/10.1016/j.jpeds.2023.113843

Centers for Disease Control and Prevention. (2022, February 1). *Communicating with and about people with disabilities*. Centers for Disease Control and Prevention. https://www.cdc.gov/ncbddd/disabilityandhealth/materials/factsheets/fs-communicating-with-people.html

Columbia University. (2022). *Using Inclusive Language*. Columbia University Department of Pediatrics. https://www.pediatrics.columbia.edu/using-inclusive-language#:~:text=Inclusive%20language%20is%20a%20framework,person%20rather%20than%20their%20characteristics.

Consolandi, M. (2023). Implicit understandings and trust in the doctor-patient relationship: a philosophy of language analysis of pre-operative evaluations. *Theor Med Bioeth*, *44*(3), 191-208. https://doi.org/10.1007/s11017-023-09607-5

Covidence. (2022). About Us. Retrieved from https://www.covidence.org/about-us-covidence/

Danielson, B. (2022). Confronting Racism In Pediatric Care. *Health Affairs*, *41*(11), 1681-1685. https://doi.org/https://doi.org/10.1377/HLTHAFF.2022.01157

Dawson, J. (2021). Medically optimised: healthcare language and dehumanisation. *Br J Gen Pract*, *71*(706), 224. https://doi.org/10.3399/bjgp21X715829

de Bruin, M., Lane, R., & Mitchell, E. K. L. (2023). Gender sensitivity and experiences of gender in an Australian nursing cohort: A cross-sectional, mixed-methods study.

Teaching and Learning in Nursing, *18*(3), e24-e29. https://doi.org/https://doi.org/10.1016/j.teln.2023.02.009

Deb Finn, M., Patricia, O. C., Lofters, A., Shankardass, K., Salmon, C., & Muntaner, C. (2021). Experiences of everyday racism in Toronto's health care system: a concept mapping study. *International Journal for Equity in Health*, *20*, 1-15. https://doi.org/https://doi.org/10.1186/s12939-021-01410-9

DeMaria, A. L., Meier, S., King, H., Haley, S., Seigfried-Spellar, K. C., & Schwab-Reese, L. M. (2023). The role of community healthcare professionals in discussing sexual assault experiences during obstetrics and gynecological healthcare appointments. *BMC Women's Health*, *23*, 1-13. https://doi.org/https://doi.org/10.1186/s12905-023-02401-4

Dong, K., & Gagliardi, A. R. (2023). Person-centered care for diverse women: Narrative review of foundational research. *Womens Health (Lond)*, *19*, 17455057231192317. https://doi.org/10.1177/17455057231192317

Edmonds, J. (2023). Moving Toward More Person-Centered Language in Maternity Care. *J Obstet Gynecol Neonatal Nurs*, *52*(5), 333-334. https://doi.org/10.1016/j.jogn.2023.07.001

Eliacin, J., Matthias, M. S., Cunningham, B., & Burgess, D. J. (2020). Veterans' perceptions of racial bias in VA mental healthcare and their impacts on patient engagement and patient-provider communication. *Patient Education and Counseling*, *103*(9), 1798-1804. https://doi.org/https://doi.org/10.1016/j.pec.2020.03.017

Ernawati, D. K., Sutiari, N. K., Astuti, I. W., Onishi, H., & Sunderland, B. (2022). Correlation between intercultural sensitivity and collaborative competencies amongst Indonesian healthcare professionals. *Journal of Interprofessional Education & Practice*, *29*, 100538. https://doi.org/https://doi.org/10.1016/j.xjep.2022.100538

Fennelly, O., Grogan, L., Reed, A., & Hardiker, N. R. (2021). Use of standardized terminologies in clinical practice: A scoping review. *Int J Med Inform*, *149*, 104431. https://doi.org/10.1016/j.ijmedinf.2021.104431

Griffin, Z., Long, P., Peña, A., Jacobsen, S., Johnson, A. L., Ottwell, R., Torgerson, T., Walters, C., Ghebrehiwet, M., Vassar, M., & Hartwell, M. (2023). Obesity, stigma, and person-centered language: A serial cross-sectional analysis of scientific literature. *Obesity (Silver Spring, Md.)*, *31*(6), 1505–1509. https://doi.org/10.1002/oby.23726

Goodyear, K., Haass-Koffler, C. L., & Chavanne, D. (2018). Opioid use and stigma: The role of gender, language and precipitating events. *Drug Alcohol Depend*, *185*, 339-346. https://doi.org/10.1016/j.drugalcdep.2017.12.037

Håkansson Eklund, J., Holmström, I. K., Kumlin, T., Kaminsky, E., Skoglund, K., Höglander, J., . . . Summer Meranius, M. (2019). "Same same or different?" A review of reviews of person-centered and patient-centered care. *Patient Educ Couns*, *102*(1), 3-11. https://doi.org/10.1016/j.pec.2018.08.029

Harney, B. L., Korchinski, M., Young, P., Scow, M., Jack, K., Linsley, P., . . . Bartlett, S. R. (2022). It is time for us all to embrace person-centred language for people in prison and people who were formerly in prison. *International Journal of Drug Policy*, *99*, 103455. https://doi.org/https://doi.org/10.1016/j.drugpo.2021.103455

Harrer, S. (2023). Attention is not all you need: the complicated case of ethically using large language models in healthcare and medicine. *EBioMedicine*, *90*, 104512. https://doi.org/10.1016/j.ebiom.2023.104512

Hartwell, M., Lin, V., Hester, M., Sajjadi, N. B., Dunn, K., Morris, J., & Witkiewitz, K. (2022). Stigmatizing Terminology for Outcomes and Processes (STOP) in Alcohol Research: A Meta-epidemiologic Assessment of Language Used in Clinical Trial Publications. *J Addict Med*, *16*(5), 527-533. https://doi.org/10.1097/adm.0000000000000960

Headley, S., Potter, I., Ottwell, R., Rogers, T., Vassar, M., & Hartwell, M. (2022). Adherence rates of person-centered language in amputation research: A cross-sectional analysis. *Disabil Health J*, *15*(1), 101172. https://doi.org/10.1016/j.dhjo.2021.101172

Higgins JP, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA, editor(s). Cochrane Handbook for Systematic Reviews of Interventions Version 6.2 (updated February 2021). Cochrane, 2021. Available from training.cochrane.org/handbook.

Himmelstein, G., Bates, D., & Zhou, L. (2022). Examination of Stigmatizing Language in the Electronic Health Record. *JAMA Netw Open*, *5*(1), e2144967. https://doi.org/10.1001/jamanetworkopen.2021.44967

Hsueh, L., Hirsh, A. T., Maupomé, G., & Stewart, J. C. (2021). Patient-Provider Language Concordance and Health Outcomes: A Systematic Review, Evidence Map, and Research Agenda. *Med Care Res Rev*, *78*(1), 3-23. https://doi.org/10.1177/1077558719860708

Hunter-Adams, J., & Rother, H. A. (2017). A Qualitative study of language barriers between South African health care providers and cross-border migrants. *BMC Health Serv Res*, *17*(1), 97. https://doi.org/10.1186/s12913-017-2042-5

Ivezaj, V., Lydecker, J. A., & Grilo, C. M. (2020). Language Matters: Patients' Preferred Terms for Discussing Obesity and Disordered Eating with Health Care Providers After Bariatric Surgery. *Obesity (Silver Spring, Md.)*, *28*(8), 1412–1418. https://doi.org/10.1002/oby.22868

Kim, S. K., & Park, M. (2017). Effectiveness of person-centered care on people with dementia: a systematic review and meta-analysis. *Clin Interv Aging*, *12*, 381-397. https://doi.org/10.2147/cia.S117637

Kobayashi, S., Allen, K., Bennell, K., Bowden, J. L., Briggs, A. M., Burgess, A., . . . Eyles, J. P. (2022). A Framework to Guide the Development of Health Care Professional Education and Training in Best Evidence Osteoarthritis Care. *Clinics in Geriatric Medicine*, *38*(2), 361-384. https://doi.org/https://doi.org/10.1016/j.cger.2021.11.008

Lam, J. S. H., & Abramovich, A. (2019). Transgender-inclusive care. *Cmaj*, *191*(3), E79. https://doi.org/10.1503/cmaj.180954

Larrow, D. R., Kadosh, O. K., Fracchia, S., Radano, M., & Hartnick, C. J. (2023). Harnessing the power of electronic health records and open natural language data mining to capture meaningful patient experience during routine clinical care. *International Journal of Pediatric Otorhinolaryngology*, *173*, 111698. https://doi.org/https://doi.org/10.1016/j.ijporl.2023.111698

Lee, K. H., Lee, J. Y., & Kim, B. (2022). Person-Centered Care in Persons Living With Dementia: A Systematic Review and Meta-analysis. *The Gerontologist*, *62*(4), e253–e264. https://doi.org/10.1093/geront/gnaa207

Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology*, *27*(1), 363-385. https://doi.org/10.1146/annurev.soc.27.1.363

Lundin, C., Hadziabdic, E., & Hjelm, K. (2018). Language interpretation conditions and boundaries in multilingual and multicultural emergency healthcare. *BMC Int Health Hum Rights*, *18*(1), 23. https://doi.org/10.1186/s12914-018-0157-3

Mahdi, D. A., & Fiedler, B. A. (2020a). 8 - Culture, language, and health care professionals. In *Three Facets of Public Health and Paths to Improvements* (pp. 213-237). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-819008-1.00008-0

Marjadi, B., Flavel, J., Baker, K., Glenister, K., Morns, M., Triantafyllou, M., . . . Gardiner, P. A. (2023). Twelve Tips for Inclusive Practice in Healthcare Settings. *International Journal of Environmental Research and Public Health*, *20*(5), 4657. https://doi.org/https://doi.org/10.3390/ijerph20054657

Meidert, U., Dönnges, G., Bucher, T., Wieber, F., & Gerber-Grote, A. (2023). Unconscious Bias among Health Professionals: A Scoping Review. *International Journal of Environmental Research and Public Health*, *20*(16), 6569. https://doi.org/https://doi.org/10.3390/ijerph20166569

Meuter, R. F., Gallois, C., Segalowitz, N. S., Ryder, A. G., & Hocking, J. (2015). Overcoming language barriers in healthcare: A protocol for investigating safe and effective communication when patients or clinicians use a second language. *BMC Health Serv Res*, *15*, 371. https://doi.org/10.1186/s12913-015-1024-8

Millar, R. J., Sahoo, S., Yamashita, T., & Cummins, P. A. (2020). Literacy skills, language use, and online health information seeking among Hispanic adults in the United States. *Patient Educ Couns*, *103*(8), 1595-1600. https://doi.org/10.1016/j.pec.2020.02.030

Neri, J., & Iudici, A. (2023). The Use of “Science” and “Scientific Language” in the DSM-5: Theoretical, Clinical, and Operative Implications for Health Professionals. *The International Journal of Interdisciplinary Social and Community Studies*, *18*(1), 83-95. https://doi.org/https://doi.org/10.18848/2324-7576/CGP/v18i01/83-95

Okoro CA, Hollis ND, Cyrus AC, Griffin-Blake S. Prevalence of Disabilities and Health Care Access by Disability Status and Type Among Adults— United States, 2016. MMWR Morb Mortal Wkly Rep. 2018; 67:882–887. DOI: http://dx.doi.org/10.15585/mmwr.mm6732a3l.

Pandey, M., Maina, R. G., Amoyaw, J., Li, Y., Kamrul, R., Michaels, C. R., & Maroof, R. (2021). Impacts of English language proficiency on healthcare access, use, and outcomes among immigrants: a qualitative study. *BMC Health Serv Res*, *21*(1), 741. https://doi.org/10.1186/s12913-021-06750-4

Park, J., Saha, S., Chee, B., Taylor, J., & Beach, M. C. (2021). Physician Use of Stigmatizing Language in Patient Medical Records. *JAMA Netw Open*, *4*(7), e2117052. https://doi.org/10.1001/jamanetworkopen.2021.17052

Penlington, M., Goulet, P., & Metcalfe, B. (2022). Improving knowledge and trust in vaccines: A survey-based assessment of the potential of the European Union Clinical Trial Regulation No 536/2014 plain language summary to increase health literacy. *Vaccine*, *40*(6), 924-933. https://doi.org/https://doi.org/10.1016/j.vaccine.2021.12.045

Person-Centered Care: A Definition and Essential Elements. (2016). *J Am Geriatr Soc*, *64*(1), 15-18. https://doi.org/10.1111/jgs.13866

PRISMA. (2022). Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Retrieved from https://www.prisma-statement.org/

Raney, J., Pal, R., Lee, T., Saenz, S. R., Bhushan, D., Leahy, P., . . . Hoang, K. (2021). Words Matter: An Antibias Workshop for Health Care Professionals to Reduce Stigmatizing Language. *MedEdPORTAL*, *17*, 11115. https://doi.org/10.15766/mep_2374-8265.11115

Ransing, R., Ramalho, R., de Filippis, R., Ojeahere, M. I., Karaliuniene, R., Orsolini, L., . . . Adiukwu, F. (2020). Infectious disease outbreak related stigma and discrimination during the COVID-19 pandemic: Drivers, facilitators, manifestations, and outcomes across the world. *Brain Behav Immun*, *89*, 555-558. https://doi.org/10.1016/j.bbi.2020.07.033

Robling, K., Cosby, C., Parent, G., Gajjar, S., Chesher, T., Baxter, M., & Hartwell, M. (2023). Person-centered language and pediatric ADHD research: a cross-sectional examination of stigmatizing language within medical literature. *J Osteopath Med*, *123*(4), 215-222. https://doi.org/10.1515/jom-2022-0126

Sampson, N., Price, C., Sampson, M., Bradshaw, M., & Freeman, B. (2024). Lessons from a plain language analysis: U.S. Clean Air Act Title V public notices as barriers to environmental justice. *Environmental Science & Policy*, *151*, 103604. https://doi.org/https://doi.org/10.1016/j.envsci.2023.103604

Sanchez, G. R., & Vargas, E. D. (2016). Language bias and self-rated health status among the Latino population: evidence of the influence of translation in a wording experiment. *Qual Life Res*, *25*(5), 1131-1136. https://doi.org/10.1007/s11136-015-1147-8

Santana, M. J., Manalili, K., Jolley, R. J., Zelinsky, S., Quan, H., & Lu, M. (2018). How to practice person-centred care: A conceptual framework *Health Expect*, *21*(2), 429-440. https://doi.org/10.1111/hex.12640

Sayfi, S., Charide, R., Elliott, S. A., Hartling, L., Munan, M., Stallwood, L., . . . Pottie, K. (2024). A multimethods randomized trial found that plain language versions improved adults understanding of health recommendations. *Journal of Clinical Epidemiology*, *165*, 111219. https://doi.org/https://doi.org/10.1016/j.jclinepi.2023.11.009

Sayyad, A., Lindsey, A., Narasimhan, S., Turner, D., Shah, P., Lindberg, K., & Mosley, E. A. (2023). “We really are seeing racism in the hospitals”: Racial identity, racism, and doula care for diverse populations in Georgia. *PLoS One*, *18*(6). https://doi.org/https://doi.org/10.1371/journal.pone.0286663

Sedney, C. L., Dekeseredy, P., Singh, S. A., & Holbein, M. (2023). Stigmatizing Language Expressed Towards Individuals With Current or Previous OUD Who Have Pain and Cancer: A Qualitative Study. *Journal of Pain and Symptom Management*, *65*(6), 553-561. https://doi.org/https://doi.org/10.1016/j.jpainsymman.2023.02.007

Shabalala, S. B., & Campbell, M. M. (2023). The complexities of trans women’s access to healthcare in South Africa: moving health systems beyond the gender binary towards gender equity. *International Journal for Equity in Health*, *22*, 1-12. https://doi.org/https://doi.org/10.1186/s12939-023-02039-6

Stortenbeker, I. A., Houwen, J., Lucassen, P., Stappers, H. W., Assendelft, W. J. J., van Dulmen, S., . . . Das, E. (2018). Quantifying positive communication: Doctor's language and patient anxiety in primary care consultations. *Patient Educ Couns*, *101*(9), 1577-1584. https://doi.org/10.1016/j.pec.2018.05.002

Sun, M., Oliwa, T., Peek, M. E., & Tung, E. L. (2022). Negative Patient Descriptors: Documenting Racial Bias In The Electronic Health Record. *Health Affairs*, *41*(2), 203-208. https://doi.org/https://doi.org/10.1377/hlthaff.2021.01423

Townes, A., Rosenberg, M., Guerra-Reyes, L., Murray, M., & Herbenick, D. (2020). Inequitable Experiences Between Black and White Women Discussing Sexual Health With Healthcare Providers: Findings From a U.S. Probability Sample. *The Journal of Sexual Medicine*, *17*(8), 1520-1528. https://doi.org/https://doi.org/10.1016/j.jsxm.2020.04.391

Truong, M., Lazarus, M., Ochoa, G. G., & Brand, G. (2022). Resisting and unlearning dehumanising language in nursing and healthcare practice, education and research: A call to action. *Nurse Educ Today*, *116*, 105458. https://doi.org/10.1016/j.nedt.2022.105458

U.S. Department of Health and Human Services. (2023, April 12). *Writing respectfully: Person-first and identity-first language*. National Institutes of Health. https://www.nih.gov/about-nih/what-we-do/science-health-public-trust/perspectives/writing-respectfully-person-first-identity-first-language

van Meurs, T., Oude Groeniger, J., de Koster, W., & van der Waal, J. (2022). Receptive to an authoritative voice? Experimental evidence on how patronizing language and stressing institutional sources affect public receptivity to nutrition information. *SSM - Population Health*, *20*, 101295. https://doi.org/https://doi.org/10.1016/j.ssmph.2022.101295

Vella, E., White, V. M., & Livingston, P. (2022). Does cultural competence training for health professionals impact culturally and linguistically diverse patient outcomes? A systematic review of the literature. *Nurse Education Today*, *118*, 105500. https://doi.org/https://doi.org/10.1016/j.nedt.2022.105500

Wooldridge, S. (2023, April 19). *Writing respectfully: Person-first and identity-first language*. National Institutes of Health. https://www.nih.gov/about-nih/what-we-do/science-health-public-trust/perspectives/writing-respectfully-person-first-identity-first-language

Wu, Q., Qian, S., Deng, C., & Yu, P. (2020). Understanding Interactions Between Caregivers and Care Recipients in Person-Centered Dementia Care: A Rapid Review. *Clinical interventions in aging*, *15*, 1637–1647. https://doi.org/10.2147/CIA.S255454

Zgierska, A. E., Miller, M. M., Rabago, D. P., Hilliard, F., McCarthy, P., Cowan, P., & Salsitz, E. A. (2021). Language Matters: It Is Time We Change How We Talk About Addiction and its Treatment. *J Addict Med*, *15*(1), 10-12. https://doi.org/10.1097/adm.0000000000000674

Zhang, L. J., Shannon, K., Tibashoboka, D., Ogilvie, G., Pick, N., Kestler, M., . . . Deering, K. N. (2021). Prevalence and correlates of having sexual and reproductive health priorities met by HIV providers among women living with HIV in a Canadian setting. *Sexual & Reproductive Healthcare*, *30*, 100666. https://doi.org/https://doi.org/10.1016/j.srhc.2021.100666

Zota, D., Diamantis, D. V., Katsas, K., Karnaki, P., Tsiampalis, T., Sakowski, P., . . . Linos, A. (2023). Essential Skills for Health Communication, Barriers, Facilitators and the Need for Training: Perceptions of Healthcare Professionals from Seven European Countries. *Healthcare*, *11*(14), 2058. https://doi.org/https://doi.org/10.3390/healthcare11142058

IX. Appendices

a. Appendix 1: Data Search

Database: ScienceDirect

Keyterms:	Number of Original Return	Number of Filtered for Research Articles	Number of Articles Exported
Bias language AND Healthcare	43,754	27,657	5
Bias language AND Healthcare Workers	10,830	6,732	0
Bias language AND Infectious Diseases	15,734	8,645	5
Public Health AND bias language	92,573	61,723	8
Public Health AND Stigmatizing Language	11,527	7,603	13
Healthcare Workers AND Stigmatizing Language	2,304	1,451	8
Healthcare Workers AND Stigma	7,607	4,750	12
Healthcare AND Stigma AND Sexually Transmitted Diseases	2,009	1,604	5
Hospitals AND Stigma AND Sexually Transmitted Diseases	3,435	1,816	11

Database: PubMed

Keyterms:	Number of Original Returns	Number of Filtered for Research Articles	Number of Articles Exported
Bias language AND Healthcare	1,693	1,351	3
Bias language AND Healthcare Workers	521	373	0
Bias language AND Infectious Diseases	350	310	0
Public Health AND bias language	7,150	5,494	2
Public Health AND Stigmatizing Language	407	253	12
Healthcare Workers AND Stigmatizing Language	126	63	8
Healthcare Workers AND Stigma	4,264	2,593	2
Healthcare AND Stigma AND Sexually Transmitted Diseases	2,773	2,412	7
Hospitals AND Stigma AND Sexually Transmitted Diseases	1,311	1,021	1

Database: ProQuest Socioligcal Abstract

Keyterms:	Number of Original Return	Number of Filtered for Research Articles	Number of Articles Exported
Bias language AND Healthcare	5,434	3,567	7
Bias language AND Healthcare Workers	3,463	3,216	1
Bias language AND Infectious Diseases	1,321	852	3
Public Health AND bias language	20,549	15,723	7
Public Health AND Stigmatizing Language	2,601	549	1
Healthcare Workers AND Stigmatizing Language	680	367	12
Healthcare Workers AND Stigma	3,382	2,270	0
Healthcare AND Stigma AND Sexually Transmitted Diseases	740	509	2
Hospitals AND Stigma AND Sexually Transmitted Diseases	779	523	0

All Databases and Keyterms searched on December 26, 2023. Present day searches may vary