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Nurses' and Nursing Students' Perceptions Toward People Living with Obesity: A Scoping Review Protocol
Les perceptions des infirmières et des étudiantes infirmières à l'égard des personnes vivant avec l'obésité : un protocole de revue de la portée

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Article abstract

Introduction: There is significant and pervasive weight bias, weight stigma, and weight-based discrimination everywhere today, even in healthcare settings. Studies have shown that health care professionals (HCPs) hold negative perceptions toward people living with obesity (PLO), which results in heightened health risks for patients. Nurses play a central role in health promotion and the health management of PLO. Thus, identifying nurses' and nursing students' perceptions toward PLO within healthcare practice or educational contexts is paramount to consider further exploratory and intervention studies.

Objective: We aim to review and map nurses' and nursing students' perceptions toward PLO from available literature.

Method: A search of MEDLINE via PubMed, CINAHL Plus with Full Text (EBSCOhost), and PsycINFO (OVID) will be conducted to identify relevant studies in English, French, Spanish, Portuguese, or Italian on nurses' and nursing students' weight bias. The period covered will be from January 1, 2005, onward, including those available up until our scheduled search in January 2024. Two independent reviewers will conduct screening, study selection, and data extraction. Data will be charted according to the study design, the research setting, years and regions of publication, concepts, and use of theoretical models. The results will be summarized and reported, identifying implications for nursing research and practice.

Discussion and Research Spin-offs: This scoping review will inform nursing research and facilitate the development of educational and clinical tools aimed at preventing and reducing weight bias among nurses to promote nursing and interdisciplinary care that upholds principles of equity, diversity, and inclusion.

Nurses' and Nursing Students' Perceptions Toward People Living with Obesity: A Scoping Review Protocol

Les perceptions des infirmières et des étudiantes infirmières à l'égard des personnes vivant avec l'obésité : un protocole de revue de la portée

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Keywords	Abstract
nurses; discrimination; obesity; weight bias; weight stigma	**Introduction**: There is significant and pervasive weight bias, weight stigma, and weight-based discrimination everywhere today, even in healthcare settings. Studies have shown that health care professionals (HCPs) hold negative perceptions toward people living with obesity (PLO), which results in heightened health risks for patients. Nurses play a central role in health promotion and the health management of PLO. Thus, identifying nurses' and nursing students' perceptions toward PLO within healthcare practice or educational contexts is paramount to consider further exploratory and intervention studies. **Objective**: We aim to review and map nurses' and nursing students' perceptions toward PLO from available literature. **Method**: A search of MEDLINE via PubMed, CINAHL Plus with Full Text (EBSCOhost), and PsycINFO (OVID) will be conducted to identify relevant studies in English, French, Spanish, Portuguese, or Italian on nurses' and nursing students' weight bias. The period covered will be from January 1, 2005, onward, including those available up until our scheduled search in January 2024. Two independent reviewers will conduct screening, study selection, and data extraction. Data will be charted according to the study design, the research setting, years and regions of publication, concepts, and use of theoretical models. The results will be summarized and reported, identifying implications for nursing research and practice. **Discussion and Research Spin-offs**: This scoping review will inform nursing research and facilitate the development of educational and clinical tools aimed at preventing and reducing weight bias among nurses to promote nursing and interdisciplinary care that upholds principles of equity, diversity, and inclusion.

Résumé	Mots-clés
Introduction : Les préjugés, la stigmatisation et la discrimination à l'égard du poids sont omniprésents, même dans les établissements de santé. Des études ont montré que les professionnels de la santé ont des perceptions négatives envers les personnes vivant avec l'obésité (PVO), ce qui augmente les risques pour leur santé. Les infirmières jouent un rôle central dans la promotion de la santé et la prise en charge des PVO. Il est ainsi impératif d'identifier les perceptions des infirmières et des étudiantes infirmières concernant les PVO dans les contextes académiques et de la pratique clinique avant d'entreprendre d'autres études exploratoires ou d'intervention. **Objectif** : Examiner et cartographier les perceptions des infirmières et des étudiantes infirmières à l'égard des PVO à partir de la littérature disponible. **Méthode** : Une recherche dans MEDLINE via PubMed, CINAHL Plus with Full Text (EBSCOhost) et PsycINFO (OVID) sera effectuée pour identifier les études sur les perceptions des infirmières et des étudiantes infirmières à l'égard des PVO publiées depuis le 1er janvier 2005, jusqu'au moment de la recherche, qui est prévue en janvier 2024. La sélection, le tri et l'extraction des données seront effectués par deux chercheuses indépendantes. Les données seront classées selon la méthodologie, le contexte de recherche, la répartition dans le temps, la région de publication, les concepts et l'utilisation de modèles théoriques. Les résultats seront résumés et présentés de manière à identifier les implications pour la recherche et la pratique infirmières. **Discussion et retombées anticipées** : Cette revue permettra d'éclairer la recherche en sciences infirmières et de faciliter le développement d'outils pédagogiques et cliniques visant à prévenir et à réduire les préjugés liés au poids chez les infirmières, afin de promouvoir des soins infirmiers et interdisciplinaires qui respectent les principes d'équité, de diversité et d'inclusion.	infirmières; discrimination; obésité; préjugés; stigmatisation

INTRODUCTION

Obesity, defined by the World Health Organization as a body mass index above 30 kg/m^2, is recognized as a global epidemic and a significant public health concern that requires urgent attention (Janssen, 2013; Powell-Wiley et al., 2021). In Canada, public health campaigns aim to address and reverse this condition through the promotion of healthy lifestyle behaviours (Edache et al., 2021; Le Bodo et al., 2017). However, these strategies often reinforce the prevailing narrative that weight is solely an individual's responsibility, attributing obesity to a lack of self-discipline in matters of nutrition and exercise habits (Fruh et al., 2021; Rubino et al., 2020). Such perspectives contribute to weight-based stereotypes, labeling people living with obesity (PLO) with negative personality or behavioral traits such as laziness, carelessness, poor health, noncompliance, and a lack of intelligence or self-control (Fruh et al.; Fulton & Srinivasan, 2022). These stereotypes perpetuate weight bias, which is defined as "negative attitudes and discrimination toward individuals based on their body weight" (Lacroix et al., 2017, p. 224). Attitudes refer to people's view of behaviour and can be implicit, when people hold unconscious biases toward PLO, or explicit when their biases are openly expressed (Fishbein et al., 2010; Fruh et al.). Weight bias may lead to weight-based discrimination, which manifests as inequitable treatment and microaggressions (Fruh et al.; Fulton & Srinivasan). Weight bias and weight-based discrimination cause adverse physical and mental outcomes, such as unhealthy eating, increased food intake, exercise avoidance, depressive symptoms, anxiety, body dissatisfaction, and low self-esteem (Rubino et al., 2020; Wu & Berry, 2018). Bias and discrimination can be directed toward any individual perceived as outside the norm. While discrimination can manifest against people deemed underweight, this review will specifically focus on bias toward PLO.

Weight bias is pervasive in various domains, including literature, the media, social media, education, employment, and even healthcare settings (Clark et al., 2021; Fruh et al., 2021; Shelton, 2016). It is concerning to note that weight bias is prevalent among healthcare professionals (HCPs) themselves (Alberga et al., 2019; Lawrence et al., 2021). One of the consequences of weight bias in healthcare is the reluctance of some physicians to provide adequate care for PLO. They may be less inclined to conduct thorough pelvic exams, spend less time with these patients, and offer limited health education (Tomiyama et al., 2018). Additionally, some HCPs have reported feeling a lack of respect toward PLO, and they may consistently focus on weight loss as the primary solution to their problems, potentially leading to misdiagnosis of underlying severe conditions (Alberga et al., 2016; Huizinga et al., 2009). After having experienced weight bias in healthcare settings, PLO might be hesitant to seek medical care even in times of need (Rubino et al., 2020).

In 2019, the annual report by Canada's Chief Public Health Officer highlighted the issue of stigma, including weight stigma, which refers to the belief that PLO are to blame for their weight and to other stereotypes regarding the behaviours or character of PLO, and emphasized the need for change within the healthcare and education systems (Government of Canada, 2020). Over the past decade, there has been a growing interest in weight bias within academic circles and published literature to the public. Previous reviews have primarily focused on synthesizing studies examining weight bias among various HCPs, such as physicians, nurses, nutritionists, and physiotherapists (Cavaleri et al., 2016; Panza et al., 2018). However, very few studies exclusively focus on nurses' weight bias despite their crucial role in patient assessment and care. With nearly half of the global healthcare workforce consisting of nurses, who often serve as the primary healthcare providers patients encounter (World Health Organization, 2022), it is essential to explore nurses' perspectives on weight bias. Nurses play a central role in providing care to PLO, especially if they have comorbid conditions requiring strict follow-up procedures (Barrea et al., 2021). Nurses are instrumental in promoting healthy lifestyle choices, disseminating health information to the public, and developing and implementing health interventions (Lazarou & Kouta, 2010).

To the best of our knowledge, no recent systematic or scoping reviews have specifically

examined weight bias among nurses and nursing students since a review that was published in January 2006 (Brown, 2006). Brown's review encompassed all empirical studies that explored nurses' attitudes toward PLO, revealing prevalent negative attitudes and beliefs that reflected societal stereotypes within Western cultures. We conducted a preliminary search of prominent databases, including MEDLINE, CINAHL, the Cochrane Database of Systematic Reviews, Prospero, and JBI Evidence Synthesis and our search confirmed that there are no ongoing systematic or scoping reviews on the topic.

Given the growing body of literature on the subject as well as the significant sociocultural changes that impact bias in general, it becomes imperative to provide current and updated insights into nurses' and nursing students' perceptions toward PLO. This review will serve as a foundation for future exploratory and intervention studies aimed at understanding and reducing weight bias in clinical and educational settings.

We propose conducting a scoping review to comprehensively examine the published literature on weight bias within the nursing profession and among nursing students and to present an up-to-date overview of existing research on this subject. The findings of this scoping review will not only synthesize the available literature but also identify research gaps regarding weight bias among nurses and nursing students.

OBJECTIVE

The objective of this scoping review is to review and map nurses' and nursing students' perceptions toward PLO from available literature. Specific objectives of this review are aligned with our research question.

RESEARCH QUESTION

This review aims to answer the following main question: "Among the articles published since January 1, 2005, what are the most frequently explored concepts related to the perceptions of nurses and nursing students toward PLO?"

When we refer to "concepts," we are talking about any idea related to weight bias that is assessed in the studies. This could include measurements of weight stigma, behaviors, quality of care toward PLO, beliefs, or attitudes, for instance. The word "perceptions" used in this review is an umbrella term encompassing beliefs, attitudes, feelings, and any other concept related to weight bias implicitly or explicitly experienced by the participants that may be measured qualitatively or quantitatively. We will assume that positive perceptions indicate that nurses have a favorable view of the abilities and behaviors of PLO. Negative perceptions would suggest that nurses express bias regarding weight when it comes to PLO. For instance, a study assessing the effectiveness of an intervention to reduce weight bias would fall into the negative perceptions category if nurses initially held unfavorable views that could be addressed through the intervention. A neutral perception would imply that nurses neither have a positive nor a negative inclination toward PLO.

Since the question guiding this review seeks to identify "certain characteristics/concepts in papers or studies" and to "[map], [report] or [discuss these] characteristics", a scoping review is the better choice in this instance (Munn et al., 2018, p. 3).

To better guide data extraction, the following sub-questions are proposed:

1. What concepts relating to weight bias were measured or studied?
2. What study designs were used to study the concepts (randomized controlled trials, pre-post intervention, descriptive design, etc.)?
3. What methodological approaches (quantitative, qualitative, or mixed methods) were employed?
4. What theoretical foundations guided the studies?
5. Do the perceptions expressed by nurses and nursing students toward PLO tend to be negative, neutral, or positive?
6. Are there geographical or temporal trends in the results, studied concepts, study designs, methodological approaches, research settings or theoretical foundations guiding the studies?

This scoping review will examine and map data from studies on nurses' and nursing students'

perceptions toward PLO. By mapping recent trends and identifying differences between regions, as well as identifying concepts related to weight bias that have been studied, this review will shed light on both commonalities and particularities of weight bias among nurses and nursing students. Additionally, it will provide guidance to address research gaps in this area in terms of study designs and research recommendations. Regional variances, if present, can provide insight into how cultural differences, such as distinctions between Western and Eastern perspectives, may influence nurses' perceptions of PLO. Assessing the theoretical frameworks that guided the included articles will facilitate reflection on how weight bias can be analyzed and from which perspective it is possible to effectively tackle weight bias in clinical healthcare and educational settings. We will also categorize the studies based on whether they employ a defined theoretical perspective to guide their methods and operationalization.

METHOD

The proposed scoping review will be conducted following the JBI methodology for scoping reviews. The PRISMA for Scoping Reviews (PRISMA-ScR) will be used to present the results (Peters et al., 2022).

INCLUSION CRITERIA

Participants. This review will consider studies about nurses' and nursing students' perceptions toward PLO conducted in nursing research settings. Due to the diverse nature of the nursing profession globally, we will not distinguish between all nursing roles. Our analysis will encompass all members of the interprofessional nursing team: registered nurses, nursing aides, nursing assistants, advanced practice nurses, nurse practitioners, as well as nurses with educational or management responsibilities.

However, to maintain an exclusive focus on the nursing discipline and nursing research, studies addressing the perceptions of other HCPs will be excluded, even if nurses are mentioned in those studies.

Concept. The core concept under study is the perceptions of nurses or nursing students toward PLO. Perceptions can manifest, among other things, as positive, negative (weight bias, stigma, and discrimination), or neutral attitudes, beliefs or perceptions.

Context. This review will consider studies from all geographic locations addressing nurses and student nurses in any context of clinical practice or educational settings. Brown's review in 2006 covered studies published up to December 2004. Thus, our review will encompass studies published from January 2005 onward, including those available up until our scheduled search in January 2024. We will not include studies related to child or adolescent obesity since bias in a pediatric context cannot be studied and addressed in the same manner. Indeed, weight bias frequently arises from the perception that obesity is self-inflicted, but blame is rather placed on the parents of children living with obesity. Studies concerning obesity during pregnancy will also be excluded because weight gain during pregnancy is expected and may overemphasize positive perceptions of weight gain.

Types of sources. This scoping review will consider all empirical studies, no matter their methodological design. Opinion papers will not be considered in this scoping review because they are not empirical. Review papers will not be included; however, their reference lists will be screened for potential papers to include. We will also look at papers that cited studies included in this review to identify additional relevant studies. Master or doctoral dissertations will be excluded due to their lack of peer review, which may compromise the scientific rigor of these texts. However, studies included in our review may originate from dissertations. Additionally, conference abstracts will not be considered, as they provide incomplete reports that do not contribute to addressing our research questions. Texts found within grey literature, such as clinical guidelines, will not be included in this review. Clinical guidelines are typically derived from published scientific articles and do not offer additional empirical evidence.

SEARCH STRATEGY

A search strategy was designed with the help of a specialized health sciences librarian, who is a member of our research team, to locate published studies. An initial limited search of MEDLINE and CINAHL was undertaken to identify articles on the topic. The text words in the titles and abstracts of relevant articles and the index terms used to describe the articles were used to develop a complete search strategy for CINAHL Plus with Full Text (EBSCO) (see Appendix I, at the end of the document). Examples of keywords that will be used in this scoping review are: weightism, anti-fat, fat, weight, obese, obesity, overweight, fatness, body size, perception, attitude, stigma, prejudice, discrimination, belief, stereotype, phobia, bias, shaming, nurse, nursing student, health care professional, health professional, as well as index terms weight prejudice, weight bias, attitude to obesity, obesity, prejudice, attitude, stigma, discrimination, nurses, nurse attitudes, students, and attitude of health personnel. The search strategy, including all identified keywords and index terms, will be adapted for each included database and information source. The reference list of all included sources of evidence as well as papers that cite our included studies will be screened for additional studies.

Studies published in English, French, Spanish, Portuguese, and Italian (languages spoken by the team members) will be included. The search databases include MEDLINE via PubMed, CINAHL Plus with Full Text (EBSCOhost), and PsycINFO (OVID).

STUDY SELECTION

All identified citations will be collated and uploaded into Endnote (The EndNote Team, 2013). Their citation details will be imported into the Covidence systematic review software (Veritas Health Innovation, 2023). Duplicates will be automatically removed by Covidence when imported into this software. If duplicates remain, they will be manually removed according to the title and abstract fields. A pilot test will be conducted among the reviewers during which approximately 50 titles and abstracts will be screened to ensure that each reviewer becomes acquainted with the criteria and Covidence. Then, titles and abstracts will be screened by two independent reviewers for assessment against the inclusion criteria for the review. Potentially relevant sources will be retrieved in full. Two independent reviewers will assess the full text of selected citations in detail against the inclusion criteria. Reasons for excluding sources of evidence in full text that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements arising between the reviewers at each stage of the selection process will be resolved with an additional reviewer and discussion. The search results and the study inclusion process will be reported in full in the final scoping review and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping review (PRISMA-ScR) flow diagram (Tricco et al., 2018).

DATA EXTRACTION

Data will be extracted from papers included in the scoping review by two independent reviewers and compiled in an Excel extraction grid inspired by the data extraction tool developed by JBI (available at https://synthesismanual.jbi.global). The extracted data will include specific details about the participants, concept, context, study methods and key findings relevant to the review questions, such as the nurses' and nursing students' perceptions toward PLO. In addition to the standard information proposed by the JBI extraction tool, the following information will be extracted: theoretical frameworks, methodological approaches, research settings (clinical or educational), and the studied concepts. The draft data extraction tool (see Appendix II, at the end of the document) will be modified and revised through a pilot phase during which data will be extracted from the first five included studies. Modifications will be detailed in the scoping review. Authors will be contacted to request missing or additional data, where required. The number and proportion of authors who respond to our request will be reported in the results.

DATA ANALYSIS AND PRESENTATION

Extracted results will be descriptively mapped. Frequency counts of concepts, populations, and characteristics, such as methodological approaches, location of studies, or nurses' and nursing students' perceptions toward PLO, will be presented in tabular form. An inventory of the identified theoretical frameworks will also be provided. A narrative summary will accompany the tabulated results and describe how the results relate to the objective and questions of the scoping review.

Table 1 (after the reference list) will show the distribution of the retained studies by year of publication to help identify temporal trends among the explored concepts related to weight bias – such as explicit attitudes or beliefs – and the perceptions of nurses and nursing students over time. This table will answer the first, fifth, and sixth sub-questions by identifying the concepts and the overall perceptions of nurses and nursing students and highlighting any trend.

Table 2 (after the reference list) will provide an overview of the current state of research on each of the concepts relating to weight bias and will reveal if areas need to be improved by the use of a theoretical framework. This table will show the distribution of the included studies according to study design, use of a theoretical framework and research setting. These results aim to answer the second, third and fourth sub-questions guiding this review.

Table 3 (after the reference list) will examine the regions of origin of the studies and the studied concepts to provide insight into geographical trends in the studying of weight bias. These results will answer the sixth research sub-question.

DISCUSSION AND RESEARCH SPIN-OFFS

The search for relevant articles and the data extraction process are scheduled to start in January 2024 and last until the end of February 2024. We anticipate the scoping review to be completed by June 2024, at which time it will be submitted to a scientific journal.

The potential impact of this review is to inform future nursing research and facilitate the development of educational and clinical tools aimed at preventing and reducing weight bias among nurses. By enhancing our understanding of nurses and nursing students' perceptions toward PLO, this review will be instrumental in promoting nursing care that upholds the principles of equity, diversity, and inclusion. Since nurses play a central role in the interdisciplinary team, improving our understanding of nurses' weight bias also has the potential to promote bias-free interdisciplinary care for PLO.

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Table 1

Periods of Publication (2005 – 2023)

	Before Jan 2010	Jan 2010 – Dec 2012	Jan 2013 – Dec 2015	Jan 2016 – Dec 2018	Jan 2019 – Dec 2021	Jan 2022 – Dec 2023
Explored concepts related to perceptions toward people living with obesity						
Concept 1						
Concept 2						
Concept 3						
Etc.						
Total: n (%)						
Identified perceptions by nurses or nursing students						
Negative						
Neutral						
Positive						
Other						
Total: n (%)						
Research setting						
Educational						
Clinical						
Other						
Total: n (%)						

Table 2

Distribution of the Studies According to the Explored Concepts, Study Design, use of a Theoretical Framework and Research

Setting

Study Design	Concept 1	Concept 2	Concept 3	Etc.	Total: n (%)
Quantitative					
Methodological					
Descriptive/cross-sectional					
Intervention					
Randomized controlled trial					
Non-randomized controlled trial					
Controlled before-after					
Qualitative					
Case study					
Case series					
Ethnography					
Grounded theory					
Phenomenology					
Other/not specified					
Mixed methods					
Other					
Total: n (%)					
Theoretical framework					
…					
…					
…					
Total: n (%)					
Research setting					
Educational					
Clinical					
Other					
Total: n (%)					

Table 3

Distribution of the Studies According to Regions, Concepts and Perceptions

	Weight bias concepts			Perceptions			
Regions	Concept 1	Concept 2	Total: n (%)	Negative	Neutral	Positive	Total: n (%)
North America							
Central America							
South America							
Europe							
Asia							
Africa							
Australia							
Not reported							
Total: n (%)							

Appendix I: *Search strategy on CINAHL Plus with Full Text (EBSCO)*

#	Question	Results
S1	TI ("weightism" OR "anti-fat") OR AB ("weightism" OR "anti-fat")	118
S2	(MH "Weight Bias") OR (MH "Attitude to Obesity")	846
S3	S1 OR S2	925
S4	TI (fat OR weight OR obese* OR obesity* OR overweight* OR fatness OR "body size") OR AB (fat OR weight OR obese* OR obesity* OR overweight* OR fatness OR "body size")	301,430
S5	(MH "Obesity+")	111,293
S6	S4 OR S5	325,708
S7	TI (perception* OR attitude* OR stigma* OR prejudice* OR discrimination* OR belief* OR stereotype* OR phobia OR bias OR shaming) OR AB (perception* OR attitude* OR stigma* OR prejudice* OR discrimination* OR belief* OR stereotype* OR phobia OR bias OR shaming)	355,479
S8	(MH "Prejudice") OR (MH "Attitude") OR (MH "Stigma") OR (MH "Discrimination")	52,580
S9	S7 OR S8	378,342
S10	S6 AND S9	17,230
S11	S3 OR S10	17,566
S12	TI (Nurse* OR "nursing student*" OR "health care professional*" OR "health professional*" OR "healthcare professional*") OR AB (Nurse* OR "nursing student*" OR "health care professional*" OR "health professional*" OR "healthcare professional*")	466,309
S13	(MH "Nurses+") OR (MH "Nurse Attitudes") OR (MH "Students, Nursing+") OR (MH "Attitude of Health Personnel")	344,710
S14	S12 OR S13	642,146
S15	(S11 AND S14)	1,750

Appendix II: *Draft data extraction tool (part 1)*

Authors, Title, Year, Country	Journal	Aim and study design	Qualitative, quantitative or mixed methods	Target population and sample	Context	Theoretical framework	Other theories mentioned

Appendix II: *Draft data extraction tool (part 2)*

SAGER / PROGRESS-Plus	Data	Data collection and procedures	Concepts	Questionnaires	Main findings	Research recommendations