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Environmental Scan of Weight Bias Exposure in Primary Health Care Training Programs

Shelly Russell-Mayhew
University of Calgary, mkrussel@ucalgary.ca

Sarah Nutter
University of Calgary, snutter@ucalgary.ca

Angela Alberga
University of Calgary

Susan Jelinski
Alberta Health Services

Geoff D C Ball
University of Alberta

Alun Edwards
Alberta Health Services

Scott Oddie
Alberta Health Services

Arya M. Sharma
University of Alberta

Barbara Pickering
University of Calgary

Mary Forhan
University of Alberta

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Abstract
Negative attitudes and beliefs about individuals with obesity (also known as weight bias) have negative consequences for physical and mental health for individuals with obesity and impact the quality of care provided by health professionals. A preliminary environmental scan of college and university training programs was conducted consisting of 67 degree and diploma granting programs from 22 institutions in Alberta, targeting programs training future health professionals. Publicly available online course descriptions were examined for weight-related keywords. Keyword frequency was used to determine the extent that coursework addressed weight-related issues. The results suggested that courses are structured to include learning about general health promotion as well as lifestyle factors that may contribute to obesity but may not systematically include learning about weight bias or its potential impact. Our findings highlight the need for further in-depth investigations as well as the need to enhance current curricula in higher education by including information related to weight, obesity and weight bias.

Les attitudes et les croyances négatives concernant les personnes obèses (également connues comme partialité contre les obèses) ont des conséquences négatives sur la santé physique et mentale des personnes obèses et affectent la qualité des soins qui leur sont prodigués par les professionnels de la santé. Nous avons mené une étude environnementale préliminaire des programmes de formation universitaires et collégiaux qui a porté sur 67 programmes menant à un certificat ou à un diplôme dans 22 établissements d'Alberta, et nous avons principalement visé les programmes de formation de futurs professionnels de la santé. Les descriptions de cours en ligne accessibles au grand public ont été examinées et les mots clés faisant référence aux problèmes de poids ont été identifiés. Les résultats suggèrent que les cours sont structurés de manière à inclure l'apprentissage de la promotion de la santé en général ainsi que les facteurs relatifs au style de vie qui peuvent contribuer à l'obésité mais ils n'incluent pas l'apprentissage systématique de la partialité contre les obèses ou ses effets potentiels. Nos résultats illustrent le besoin de mener des enquêtes approfondies ainsi que celui de renforcer les programmes de cours actuels en enseignement supérieur pour y inclure des informations relatives au poids, à l'obésité et à la partialité contre les obèses.

Keywords
weight bias, health care, health professionals, post-secondary education

Cover Page Footnote
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Negative attitudes and stereotypes toward people with obesity (i.e., weight bias) are pervasive in North American society (Puhl & Heuer, 2009). Research has shown negative consequences of weight bias on physical health (Schafer & Ferraro, 2011), increases in disordered eating behaviour (Durso et al., 2012), and negative impacts on psychological health, including depression (Fettich & Chen, 2012) and self-esteem (Annis et al., 2004). In addition to previous research documenting weight bias in the general population (e.g., Swami et al., 2010), many health professionals including physicians (Sabin et al., 2012), nurses (Brown, 2006), dietitians (Stone &Werner, 2012), and mental health professionals (Davis-Coelho et al., 2000; Puhl et al., 2014) are sources of weight bias (Puhl & Heuer, 2009).

Weight bias has permeated the attitudes of researchers and professionals in the area of weight-related disorders, with studies indicating weight bias is present even in those who specialize in the care of people with obesity (Puhl, et al., 2014; Schwartz et al., 2003; Vallis, Currie, Lawlor, & Ransom, 2007). Recent surveys of health professionals have found that most feel unprepared to care for patients with obesity, lack adequate referral sources, and would support additional training that would lead to the improved care of individuals with obesity (Bleich et al., 2012; Kirk et al., 2014). This research also suggests that health professionals are frustrated by conflicting messages about the nature of obesity, experience difficulty in understanding the complexity of obesity, and feel unsupported by the health care system, which often results in frustration and disappointment being placed on the patients themselves (Kirk et al., 2014).

Researchers have also investigated the occurrence of weight bias among students enrolled in professional health training programs (e.g., Miller et al., 2013; Phelan et al., 2015; Puhl et al., 2009). Research investigating the attitudes of medical students found that approximately 40% of students had significant weight bias, and that two thirds of these students were unaware of their bias (Miller et al., 2013). Similar results have been found with students in other health fields including nursing and psychology students (Waller et al., 2012), dietetics students (Puhl et al., 2009) and exercise science students (Chambliss et al., 2004). Weight bias has also been reported with students outside of North America, suggesting that weight bias in future health professionals is a global issue (Pantenberg et al., 2012).

This research is especially troubling given that biased attitudes toward weight may impact a patient's quality of care in the health system (Kirk et al., 2014; Waller et al., 2012). Mold and Forbes (2013) found that health professionals have negative attitudes toward patients with obesity, spend less time with patients with obesity, and offer them fewer treatment options. Obesity treatment was also viewed by physicians as less effective than the treatment for most other chronic health conditions in part because obesity was conceptualized as a behavioural problem attributed to the personal characteristics of the individual with obesity (Foster et al., 2003).

Recently, research efforts have focused on the development and implementation of interventions aimed at reducing weight bias for a variety of health care professionals and students including medicine, dietetics and kinesiology (Poustchi et al., 2013; Rukavina et al., 2010; Swift et al., 2013) as well as public health practitioners (McVey et al., 2013). These interventions have been successful in reducing weight bias in the short term as well as increasing awareness of the impact of these negative attitudes on client care (Alberga et al., 2016; Falker & Sledge, 2011; McVey et al., 2013) although increased intervention research is needed (Alberga et al., 2016). O'Brien et al. (2010) proposed that it is especially important for educators of future health care professionals to ensure that students are presented with the multiple and complex

factors which contribute to the development of obesity in addition to information on nutrition and exercise.

Researchers have also begun calling for action in shifting the content of training in professional programs (e.g., Freedhoff et al., 2013). Brown and Flint (2013) purported that it is commonly recognized that the current content of training programs does not provide the necessary understanding of obesity required to appropriately and respectfully care for clients. Other researchers have suggested that obesity is frequently overlooked in medical school curricula and that obesity has failed to be established as a teaching priority (Banaziak & Murr, 2001; Freedhoff et al., 2013). In addition to these calls for a shift in the content of professional training programs by researchers, Canadian health organizations (e.g., Canadian Obesity Network) and healthcare networks (e.g., Alberta Health Services, 2014) have identified weight bias as an important topic for knowledge translation in order to improve care for patients in healthcare settings.

Although previous researchers have called for the identification of obesity as a teaching priority, to our knowledge, no research to date has systematically examined the post-secondary training that future health professionals acquire on weight-related issues such as obesity and weight bias. The purpose of this research was to conduct a preliminary environmental scan of the Alberta college and university training curricula of professions involved in primary health care to assess the extent of exposure to weight bias and weight-related issues. This research provides a first-look at training curricula for primary health care professionals in relation to weight bias weight-related issues.

Method

Data Sources

We identified eligible post-secondary institutions through the Alberta Learning Information Service website (occinfo.alis.alberta.ca/occinfopreview), which provides occupational profiles of institutions offering degrees and diplomas for more than 500 different occupations in Alberta. Inclusion criteria were broad in order to better describe the post-secondary training of all professionals working in health care, including degree and diploma granting programs. This environmental scan included training programs in the following primary health care fields: medicine (MD, MSc, PhD), family medicine residency, nursing (DPN, BN, BSc, MN, MSc), dietetics (BSc), pharmacy (BSc, PharmD), physical therapy (MSc), occupational therapy (MSc), clinical and counselling psychology (MEd, MSc, PhD), school psychology (MSc, PhD), and social work (DSW, BSW, MSW). In sum, 67 training programs (26 diploma programs, 41 degree programs) from 22 training institutions (16 colleges, 6 universities) were identified and included in the scan.

After professional training programs were identified, each post-secondary institution's list of programs was examined between June and August 2013. To be included in our scan, training programs were required to be degree or diploma granting in one of the eleven professional occupations identified by the research team. At the university level, the following professional programs were examined: medicine, family medicine residency, nursing, dietician, pharmacy, applied psychology (clinical, counselling, school), social work, occupational therapy and physical therapy. At the college level, the following professional programs were examined: nursing, social work, pharmacy technician/assistant and therapy assistant.

Data Collection

Through team consultation, keyword search terms for the scan were identified. Search terms were selected based on relevance to weight-related health, population/societal health trends and bias/discrimination. Keyword search terms were broad to encompass examination of weight-related health in general and not weight bias alone: weight, obesity, eating, exercise, nutrition, and bias/discrimination. Keyword matches that did not refer to body weight-related health were excluded.

The publicly accessible online course descriptions for all core required courses for all of the identified training programs were systematically examined (603 degree-level courses, 571 diploma-level courses). For each training program, course titles and descriptions were collected when one or more keyword terms were found (30 degree-level courses, 17 diploma-level courses). In addition, the nature of the course (e.g., required/elective) was noted when possible, as well as the training level of the course (e.g., undergraduate/graduate). Courses addressing weight-related health conditions, such as eating disorders or diabetes, were also noted, but courses addressing general assessment of well-being were not included in the scan. The quality of the training programs was not assessed; frequency counts of identified keywords in each program's courses were used to assess the overall extent of students' exposure to weight-related issues and weight bias. Course descriptions were missing from two institutions' websites, which included five diploma-level programs, as well as from the family medicine residency programs. In these cases, the environmental scan considered only course titles.

Results

Training Programs

Of the 67 programs identified, 41 (61.2%) were at the undergraduate or graduate degree level, and the remaining programs (26) were one or two-year diploma programs. Of all the programs identified, 38.8% were represented by nursing, 17.9% psychology, 13.4% social work, 8.9% medicine, 6.0% therapy assistant, 6.0% pharmacy assistant/technician, 3.0% family medicine residency and 1.5% represented each of dietetics, occupational therapy, physical therapy and pharmacy.

Exposure to Weight-Related Issues

The results of this environmental scan provided general observations with regard to the overall course content on weight-related issues in post-secondary training programs for primary healthcare professionals as well as the exposure of students to the topic of weight bias within health curricula. More generally, 19 (30%) programs include coursework on community or public health. These courses cover topics such as general health promotion, societal and economic implications for public health, health within a Canadian context, and other topics related to health at a community and social level. The majority of programs with public health courses (68.5%) consist of nursing programs, with the remaining courses being represented by medicine, family medicine residency, and dietetics programs. However, at one college surveyed, the social work, pharmacy technician, and physical therapy assistant programs all included public health coursework. Courses also tend to address health promotion issues at an individual

level, which cover topics such as nutrition and fitness as they contribute to individual health and wellness. These courses were present in 15% of programs, and were included in medicine, family medicine residency, nursing, dietetics, physical therapy, and pharmacy programs. Our results also suggested that, courses in medicine and dietetics programs are structured to include a general understanding of obesity. Specifically, these course descriptions indicated an emphasis on the nutrition and lifestyle factors that contribute to obesity as well as the health consequences of obesity.

Despite the above results, the findings of our environmental scan with regard to weight bias suggested that courses in post-secondary healthcare programs are *not* structured to include learning about weight bias in a *systematic* way. Analysis of the course outlines revealed that even though courses are structured to include knowledge about obesity as well as individual and community health, this instruction may not be paired with course content on the biased attitudes towards individuals with obesity, weight-based discrimination, or even bias and discrimination in general. Only social work students and students in one graduate level nurse practitioner program included coursework specifically dedicated to bias, discrimination, or social justice issues. Finally, the examination of these course outlines also suggested that students' exposure to weight-related course content differs between diploma-level training and degree-level training programs. Diploma-level students typically receive the least exposure to weight-related issues. These results are detailed in Table 1.

Table 1

Courses Structured to Include Learning on Weight-Related Issues

			Courses			
	Primary Health Care Fields	Number of Programs	Community or Public Health	Individual Health & Wellness	Obesity & Eating Disorders	Bias & Discrimination
Degree (n=41)	Medicine	8	2	2	2	0
	Nursing	15	9	1	0	1
	Occupational Therapy	1	0	0	0	0
	Physical Therapy	1	0	1	0	0
	Social Work	2	0	0	0	1
	Psychology	12	0	0	0	0
	Pharmacy	1	0	1	0	0
	Dietetics	1	1	1	1	0
Diploma (n=26)	Nursing	11	7	2	0	0
	Social Work	7	1	1	0	3
	Physical Therapy Assistant	4	1	0	0	0
	Pharmacy Technician/Assistant	4	1	0	0	0

Discussion

Our environmental scan provided the first step in investigating the training of future health care professionals in weight bias. The results of our environmental scan suggest that these courses may not include learning about weight bias, even in programs, such as social work, that address bias, discrimination or social justice issues. The results of this environmental scan also suggest that, with the exception of social work, psychology and occupational therapy students, primary health care students receive coursework that addresses individual health and wellness as well as community and public health. Further, courses in medicine and dietetics programs are also structured to include learning about the lifestyle factors that contribute to obesity, as well as physical health consequences of obesity. These results provide preliminary support for previous assertions that systematic training in obesity and weight bias is overlooked, and that the training provided fails to meet the needs of practitioners once they enter the health care field (Brown & Flint, 2013; Freedhoff et al., 2013; Kirk et al., 2014). Future research should utilize additional data sources such as key informants, course syllabi, and learning objectives to more deeply examine the training curriculum for primary health care programs.

Previous interventions with both health professionals and students have focused on raising awareness of the negative effects of weight bias and on reducing the belief that weight is solely under personal control (e.g., McVey, 2013; Poustchi et al., 2013). By including course instruction on the genetic and environmental factors contributing to obesity, as well as weight bias and associated negative effects, health professionals may feel more positive toward and prepared for assisting patients with weight-related issues. For example, O'Brien et al (2010) found that students who learned about the genetic and environmental contributors to obesity, which are outside of personal control, demonstrated a decrease in weight bias.

Previous researchers have recognized the importance of social responsibility training as well as multicultural competency for health professionals (American Medical Association, 2006; Dharamsi et al., 2011). Multicultural training aims to prepare students to identify, be knowledgeable about, and respond to health needs at the community and population levels and to attend to gender and cultural biases in professional practice (Dharamsi et al., 2011; Frank 2005; Liason Committee on Medical Education, 2007). In response to calls for training in cultural competency, Kumagai and Lypson (2009) proposed that cultural competency must involve the development of a "critical consciousness," in which medical care is viewed through the lens of social, cultural and historical contexts so that professionals are better able to deliver quality care to "*all* members of society, regardless of gender, race, ethnicity, religion, sexual orientation, language, geographic origin, or socioeconomic background" (p.782). The researchers described critical consciousness as developing through a reflective awareness of social inequities and power differentials (Kumagai & Lypson, 2009). This development may occur through a facilitated discussion that can improve the abilities of health professionals to recognize biases, to engage with other health professionals about bias, and to identify strategies for managing bias as well as responding to patients in an unbiased manner (Teal et al., 2010). The results of our research suggest that 'weight' or 'body size' might be an important addition to the list of qualities that need consideration when developing a critical consciousness.

Limitations and Future Research

Our environmental scan has several limitations. First, key informants, course syllabi, or learning objectives were not used as data sources because information beyond what was publicly available online was not included in the study. This limitation was particularly relevant when course descriptions were missing from program websites. However, course descriptions were missing only from diploma-level program websites. Although learning objectives would have provided more detailed information typically not included within brief course descriptions, these were not available for all courses and programs. Further, it is important to note that online course descriptions may not have been up-to-date, and may be inaccurate representations of updated and current course content. Future research utilizing key informants, course syllabi, and learning objectives may provide a more comprehensive, and current, understanding of health professional training in weight bias in Canada. Second, the length of course descriptions were inconsistent across programs and institutions, with some programs offering detailed course outlines and others having as little as one-sentence course descriptions. While we acknowledge that these brief descriptions cannot wholly reflect the content of the course and that discussion of obesity and weight bias may make its way into training, these course descriptions provide a snapshot suggesting these issues are not discussed systematically, despite the acknowledgment of weight bias as a public health issue (Puhl & Heuer, 2010) and key strategy for Canadian health organizations (e.g., Canadian Obesity Network) and care networks (Alberta Health Services, 2014). Future research could consider using key informants and course syllabi in an effort to further examine course content for weight-related issues. Third, the environmental scan only considered a subset of primary health professional training programs in Canada, as only programs in Alberta were examined. This limitation is important when considering that the proportion of training programs in the current study may not be congruent with the proportion of practitioners from each field that are in practice in Alberta. Future research could also examine health care training programs from across Canada as well as the United States, as well as surveying national professional groups (e.g., Canadian Obesity Network and other health professional organizations), in order to fully examine the training of primary health professionals in a Canadian or North American context.

Conclusion

The results of this environmental scan provide preliminary data to suggest that coursework in health training programs in Alberta may not include weight bias, even when courses address obesity. Given the pervasiveness of weight bias in North American society (Puhl & Heurer, 2009) and the dramatic increase in the occurrence of weight bias in recent years (Andreyeva et al., 2008; Puhl et al., 2008), it is not surprising that health professionals and students are not immune to weight bias (e.g., Miller et al., 2013; Sabin, et al., 2012). Although efforts have been made to reduce weight bias in health professionals (e.g., Poustchi et al., 2013; Rukavina et al., 2010), these programs and interventions are short-term efforts and have not yet been integrated systemically into training curricula. In order to help to create significant and consistent attitude changes within the health care system and increase the quality of care provided to patients with weight-related issues, it is imperative to include systematic training in weight-related issues, including weight bias, in higher education.

This environmental scan serves as a foundation for future research to more deeply investigate the content of training programs for future health professionals to determine if and how weight bias is addressed in curricula in post-secondary training programs in Alberta. Developing health professionals' knowledge about weight bias and its negative health consequences, and facilitating students' ability to recognize and respond to weight bias is necessary for the reduction of weight bias in professional practice. By implementing this knowledge and awareness into existing curricula in higher education, health care training programs have the potential to positively impact the quality of care in the health system.

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