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Nursing Bias and the Obese Patient: The Role of the Clinical Nurse Leader in Improving Care of the Obese Patient

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Obesity continues to be a public health issue in the United States. Obesity is a major risk factor for other medical conditions, such as cardiovascular disease, diabetes, musculoskeletal disorders, and some cancers. Healthcare providers play a key role in assisting and providing support to patients who are obese or have obesity-related health problems. They can educate patients who are trying to lose weight and maintain weight loss. However, barriers exist in quality of care. For example, nurses and other healthcare providers may at times have negative attitudes toward and beliefs about patients who are obese. Additionally, healthcare providers may rely on family or self-report of a patient's height and weight, and those estimates are often inaccurate. To improve the care of patients struggling with weight, the clinical nurse leader (CNL), for example, can play an important role in educating nurses regarding issues that affect the patient with obesity. The CNLs can provide educational opportunities that potentially improve nursing attitudes. The nurse must first identify and understand any bias against the obese patient he or she might have. The CNL can be at the forefront, removing barriers, creating change, and ultimately improving the overall health of the obese patient.

Introduction

Obesity is defined as abnormal or excessive fat accumulation that may impair health.[1] In adults, obesity is measured by calculating body mass index (BMI).[1] The World Health Organization (WHO) has defined overweight as a BMI ≥ 25 kg/m^2 and obesity as a BMI ≥ 30 kg/m^2.[1] According to the Centers for Disease Control (CDC), 33.8% of United States adults are obese.[2] Obesity is a major risk factor for other medical conditions, such as cardiovascular disease (heart disease and stroke), diabetes, musculoskeletal disorders (especially osteoarthritis), and some cancers (endometrial, breast, and colon).[1] Additionally, patients who are obese have significant increases in lifetime diagnosis of major depression and a 25% increase in likelihood of mood and anxiety disorders.[3]

Excess weight places a burden on the patient and the healthcare system. Obesity and morbid obesity (defined as a BMI ≥ 40 kg/m^2) are risk factors for increased hospital resource consumption, regardless of disease processes and other characteristics such as sex, age, race, hospital admission type, or length of hospital stay.[4] Even more importantly, the hospital charges among morbidly obese inpatients are much greater than even among those who are obese. Because of high levels of hospital resource consumption, the rapidly increasing prevalence of obesity among inpatients is likely to be a concern for hospital staff and hospital financial resources given the comprehensive care necessary for these patients.[4]

In the United States, obese individuals are highly stigmatized in all professions.[5,6] These stereotypes surprisingly exist within the medical field. Studies show that healthcare providers have a negative bias toward obese patients.[7–9] These attitudes may create impaired patient interactions with providers. For example, 24% of nurses said that they are "repulsed" by obese persons.[5]

Nurses can play a key role in assisting and providing support to patients who are obese or have obesity-related health problems.[10] Furthermore, given his/her advanced training, the clinical nurse leader (CNL) can play an important role in educating fellow staff nurses in the hope of improving patient care for the obese patient. Most importantly, in order even to assist the patient in changing health behaviors, the nurse must first identify and understand any bias against the obese patient he or she might have. This paper therefore provides an overview of etiologies of obesity, barriers to care of the obese patient that may be created by attitudes or bias of nursing staff, and implications for the nurse in a hospital setting when caring for the obese patient. Finally, the role of the CNL in developing and implementing educational programs for fellow nurses to improve the care of hospitalized patients who are overweight or obese will be highlighted.

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Understanding of Role of Multiple Etiologies of Obesity

First, nurses should have a comprehensive understanding of risk factors associated with weight gain. Obesity may be related to such underlying factors as genetic defect, intake and utilization of energy, socioeconomic status, behavioral risk factors, and cultural and ethnic background.[11] More than 300 different genes and gene markers have been identified that are associated with obesity.[12] Stunkard *et al.*[13] conducted twin studies and found that as much as 70% of the variance in obesity could be attributed to genetic factors.

Environmental factors, such as sedentary lifestyles, play a role in the etiology of obesity.[12] According to the CDC, for those aged 18 to 64 years, at least 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity every week and muscle-strengthening activities on two or more days a week are recommended.[14] However, only approximately 15% of American adults regularly engage in this modest amount of activity required to obtain health benefits, while more than a quarter of adults exhibit sedentary behavior.[15] Numerous different factors contribute to reducing physical activities and increasing sedentary time.[12]

Another factor that contributes to obesity is that many people consume large portions of energy-dense meals or snacks.[16] Despite knowledge of portion sizes, food portions are consistently larger than federal standard portion size.[17] Atkinson[12] pointed out that there are several reasons for increased food intake, specifically (1) the increased energy content of fat, (2) greater palatability of high-fat foods, and (3) generally lower chewing and swallowing time for high-fat foods. In addition, increased fast-food sources and easy availability influence increased food intake. According to a survey by the American Institute of Cancer Research, Americans tend to ignore serving size and are unaware that the portions they consume have increased in size.[18]

Atkinson[12] concluded that the phenomenon of sudden weight gain in adults is a response to environmental stressors and leads to obesity. He pointed out that emotional stress, central nervous system damage, surgical procedures, and infectious diseases could be the sources of stress. This weight gain is common in seasonal affective disorder (SAD) and is associated with depression.[12] Simon *et al.*[3] conducted a survey and concluded that obesity was associated with significant increases in lifetime diagnosis of major depression, and a 25% increase in likelihood of mood and anxiety disorders. In addition, low socioeconomic status is highly associated with obesity; potentially one factor may be that food in inexpensive forms may be higher in fat and less rich in nutrients.[19]

Barriers to Successful Management of Obesity

Nurses' knowledge about obesity

Nurses themselves have experienced some barriers to provide obesity education to patients. Nurses reported their own ambivalence, patients' denial, and inadequate time as barriers to providing education to patients.[20] Even more so, the barrier of inadequate knowledge about risk and causal factors of obesity may be at play. The majority of nurses in one study reported a lack of sufficient knowledge about obesity, as well as a lack of confidence regarding their role in educating patients about obesity. Nurses in this study also reported a lack of information related to proper nutrition, lack of support from the medical team, and uncertainty about how to begin teaching about obesity as barriers.[20] Additionally, only one-third of nurses correctly stated how to calculate BMI. Brown *et al.*[21] found that most nurses did not perceive organizational support was in place for obesity management, and only a few nurses conducted a clinical activity comprised of assessment, lifestyle change support and referral, and one-to-one consultation in obesity management. Hankey *et al.*[22] also stated that practice nurses felt unskilled when offering weight management and dietary change advice. Given the amount of information available on obesity and the health issues surrounding it, the evidence surprisingly still points to lack of knowledge and understanding by nurses about the needs of obese patients.

Nurses' attitudes/bias toward obese patients

Several studies have investigated nurses' attitudes toward adult overweight or obese patients. Brown[23] reviewed numerous empirical studies of nurses' attitudes toward obese patients. He reported that multiple studies have shown that nurses have negative attitudes toward and beliefs about obese people. Additionally, nurses' attitudes toward obese patients are formed by age, gender, experience, and the weight/BMI of the nurse. Culbertson and Smolen[24] found that greater age and work experience were associated with less negative attitudes toward the lifestyles and personalities of obese persons. They also reported that nurses who had weight problems expressed a less negative attitude toward obese patients than nurses who did not have weight problems. Brown[23] concluded that gender plays a role in bias, as men had more positive attitudes. However, Morrison and O'Connor[25] found that women held more positive attitudes toward obese patients. Budd *et al.*[26] reviewed 15 studies conducted between 1990 and 2007 and concluded that healthcare providers' attitudes toward overweight patients are negative but, although still somewhat negative, have improved over time.

In an earlier study, Hoppe and Ogden[27] surveyed 586 practice nurses and found that they believed lifestyle factors are the main cause of obesity and that obesity is preventable and treatable. They also held a positive attitude toward the health benefit of weight loss. They were confident of having the necessary skills to give accurate advice, but they were not confident in the outcome of giving weight-loss advice specific to a patient. The authors also found that nurses with high BMI provided more detailed advice to patients than nurses with normal BMI. Culbertson and Smolen[24] described attitudes of registered nurse students and found that the majority felt that obese adults chose food selections poorly, lacked self-confidence, and could lose weight if they changed their eating habits.

Some registered nurses reported that caring for obese patients is physically exhausting,[24] and viewed obesity as preventable.[27] Poon and Tarrant[10] investigated undergraduate student nurses' and registered nurses' attitudes toward obese people and concluded that the majority of student nurses and registered nurses perceived that obese people like food, overeat, and are shapeless, unattractive, and slow. Zuzelo and Seminara[28] have also investigated registered nurses' attitudes toward obese patients and found that they were uncertain and

not unified in their approach to encourage and address diet, lifestyle changes, and self-care practices for obese patients. Therefore, there is complexity in nurses' attitudes and bias toward obese patients.

The Nurse's Role in Caring for Obese Patients in the Hospital Setting

Challenges of caring for obese patients

When patients are overweight or obese and stay in the hospital, the challenges of care arise regardless of the practice setting.[16] Physical size can complicate nursing interventions, such as skin care, assessment, resuscitation measures, and intravenous access. It can also cause respiratory challenges and immobility.[11,16] Nurses identify clinical concerns in a timely manner and apply appropriate interventions to prevent the preventable complications associated with hospitalization and overweight.

In addition, nurses have an increased likelihood of injury themselves helping obese patients.[29] The physical size can be a challenge for nurses, and they need to understand the challenges and appropriate interventions to protect themselves and prevent patient complications. Melin *et al.*[30] pointed out that obesity education has been neglected and healthcare professionals poorly supported when dealing with obese patients.

The Clinical Nurse Leader

The White Paper on the Education and Role of the Clinical Nurse Leader[31] stated that "the CNL is a leader in the health care delivery system across all settings in which health care is delivered, not just the acute care setting." CNLs are responsible for a cohort of patients and client care outcomes. They apply evidence-based information to design, implement, and evaluate client plans of care.[31] The CNLs also are responsible for the clinical management of comprehensive client care for both individuals and clinical cohorts.[31] Sherman *et al.*[32] noted that the CNLs make the acute care environment safer for patients by improving discharge planning efforts.

CNLs are prepared as nurse leaders to serve as a resource for the clinical nursing team. They are responsible for the coordination and planning of team activities and functions. They supervise and evaluate personnel and the outcomes of care.[31] The CNL may educate healthcare personal about current information, materials, and strategy for the nursing team by serving as leaders and partners in the healthcare system.[31] According to Sherman *et al.*,[32] CNLs are "seen as role models who could motivate and challenge staff to use an evidence-based approach to practice and encourage professionalism."

Impact of CNL on Obesity Care

CNLs can play an integral role in developing and implementing policies that will assist nurses in identifying and tailoring interventions for the overweight and obese patient. This should first include (1) assuring accurate measurement of height, weight, and BMI; (2) understanding the multiple etiologies of obesity; and (3) understanding how their own personal attitude and bias about the obese patient may affect care. In order for nurses to utilize tailored interventions, the CNL must first educate them regarding obesity and current evidence-based care of the obese patient.

CNL as an educator

Tornabeni *et al.*[33] stated that CNLs would act as educators and "use appropriate teaching principles and strategies as well as current information, materials, and technologies to teach clients, groups, and other healthcare professionals." As Poon and Tarrant[10] reported, both registered nurses and student nurses have negative perceptions of obesity and are unlikely to attribute positive characteristics to obese individuals. Zuzelo and Seminara[28] recommended that educators should recognize and address bariatric nursing challenges, safety concerns, information, and equipment to improve the quality of care for obese patients. The CNL as educator, therefore, can first investigate nurses' attitudes and biases when caring for obese patients and provide best-fit educational programs to address challenges the nurse may feel when caring for the obese patient and ultimately improve care. Additionally, the CNL can be a role model in this respect for the student nurse, who is potentially following the lead of the staff nurse when formulating his/her opinions of the obese patient.

Miller *et al.*[19] investigated a need for continuing education for nurses about the problem of obesity. Nurses reported that they do feel competent to provide professional weight-related counseling, but do not pursue the topic, even though they make the clinical judgment about which patient is obese or overweight.[19] CNLs can effectively enhance the professional practice environment by developing educational opportunities, such as interdisciplinary rounding, and supporting the staff nurses in the coordination of care planning. CNLs have implemented new assessment tools, protocols, scheduling grids, and monitoring tools to improve outcomes.[31] Because CNLs are prepared in graduate programs that combine nursing clinical knowledge with leadership and management skills, they are potentially able to influence care for obese patients by modifying assessments and protocols. Examples of programs the CNL can utilize to improve care of the patient in the hospital setting have been documented in the literature. Ogden *et al.*[34] developed an intensive program to improve nurses' management of obesity. Those nurses who attended an interactive seminar to educate them about obesity etiologies and risk or bias, when questioned about their care in a post-intervention survey, reported increased time with the obese patient when presenting information and strategies for a healthy lifestyle. The researchers concluded that nurses' beliefs and behavior as well as the style of interactions could be improved merely through an interactive seminar.[34] CNLs, therefore, given their educational background and expertise can tailor programs such as this to the hospital setting they work within in order to assist the nurse to understand his/her own belief system and how it may potentially impact the care of the obese patient.

The Healthy Eating and Activity Together (HEAT) Clinical Practice Guideline (CPG) training session was conducted with nurse practitioners during the National Association of Pediatric Nurse Practitioners (NAPNAP) conference.[35] The HEAT CPG was developed by NAPNAP to identify and prevent overweight in childhood. Gance-Cleveland *et al.*[35] found that the nurse practitioners showed increased

knowledge of assessment and identification of overweight children and increased intention to improve their own behavior, such as counseling skills and use of behavior modification. CNLs can establish professional goals and strategies to assist nurses to be ready to consult with obese and overweight patients.

Additionally, the CNL can then encourage the nurse, once he/she understands his/her own attitudes, to be ready to provide support and education for the obese patient. Sherman *et al.*[32] also conducted interviews and examined the use of CNLs at the St. Lucie Medical Center (SLMC). These interviews indicated that CNLs have effectively enhanced the professional practice environment by developing interdisciplinary rounding and supporting the staff nurses in the coordination of care planning. Also, nurses improved their explanations to patients after implementation of the CNL. CNLs have been able to demonstrate authentic leadership and mentor and guide nurses to develop critical thinking.

Conclusion

Nursing is clear about the role it plays regarding health promotion education. When working with patients who are obese, nurses are a resource for health education and promotion. Additionally, if living a healthy lifestyle, they can be role models for patients and families who struggle with weight. In the hospital, obese patients may be admitted for other diagnoses, but may be in need of health lifestyle education. In order to provide counseling successfully about physical activity, regular meals, and nutrition, the nurses first need to assess their own biases toward the obese patient, as well as have a foundational understanding of the multiple etiologies that lead to weight gain. Additionally, nurses can also integrate into teaching the psychosocial and cultural dynamics that affect health behaviors leading to obesity. Given this, nurses are no different from others in the healthcare field who struggle with judgment and negative views of obesity. Nursing can lead the charge to face the major task of improving attitudes of healthcare providers toward the obese patient. The CNL can be at the forefront, removing barriers, creating change, and ultimately improving the total health of the obese patient.

Disclosure Statement

No competing financial interests exist.

References

1. World Health Organization. Obesity and overweight. Available at www.who.int/mediacentre/factsheets/fs311/en/index.html. Accessed March 1, 2012.
2. US Centers for Disease Control and Prevention. Overweight and obesity. Available at www.cdc.gov/obesity/data/trends.html. Accessed March 11, 2012.
3. Simon GE, Von Korff M, Saunders K, Miglioretti DL, Crane PK, et al. Association between obesity and psychiatric disorders in the US adult population. Arch Gen Psychiatry 2006:63:824–830.
4. Kim S, Boye K. Obesity and incremental hospital charges among patients with and without diabetes in the United States. Value In Health 2009;12:723–729. Available from CINAHL with Full Text, Ipswich, MA.
5. Puhl R, Brownell KD. Bias, discrimination, and obesity. Obes Res 2001;9:788–805.
6. Puhl RM, Heuer CA. The stigma of obesity: a review and update. Obesity (Silver Spring) 2009;17:941–964.
7. Gudzune KA, Huizinga MM, Cooper LA. Impact of patient obesity on the patient–provider relationship. Patient Educ Couns 2011;85:e322–325.
8. Schwartz MB, Chambliss HO, Brownell KD, Blair SN, Billington C. Weight bias among health professionals specializing in obesity. Obes Res 2003;11:1033–1039.
9. Ogden J, Bandara I, Cohen H, Farmer D, Hardie J, Minas H, Moore J, Qureshi S, Walter F, Whitehead MA. General practitioners' and patients' models of obesity: whose problem is it? Patient Educ Couns 2001;44:227–233.
10. Poon M, Tarrant M. Obesity: attitudes of undergraduate student nurses and registered nurses. J Clin Nurs 2009;18:2355–2365.
11. Lazarou C, Kouta C. The role of nurses in the prevention and management of obesity. Br J Nurs 2010;19:641–647.
12. Atkinson R. Etiologies of Obesity. The Management of Eating Disorders and Obesity, second ed. Totawa, NJ: Humana Press Inc., 2002.
13. Stunkard A, Sorensen TIA, Hanis C, et al. An adoption study of human obesity. N Engl J Med 1986;314:193–198.
14. US Centers for Disease Control and Prevention. Physical Activity for Everyone. Available at www.cdc.gov/physicalactivity/everyone/guidelines/index.html. Accessed March 11, 2012.
15. U.S. Department of Health and Human Services. Physical Activity and Health. Available at www.cdc.gov/nccdphp/sgr/pdf/execsumm.pdf. Accessed March 11, 2012.
16. Camden S. Obesity: an emerging concern for patients and nurses. J Issues Nurs 2009;14:5.
17. Young L, Nestle M. The contribution of expanding portion sizes to the US obesity epidemic. Am J Public Health 2002;92:246–249.
18. Appelhans BM, Milliron BJ, Woolf K, Johnson TJ, Pagoto SL, et al. Socioeconomic status, energy cost, and nutrient content of supermarket food purchases. Am J Prev Med 2012;42:398–402.
19. Miller S, Alpert P, Cross C. Overweight and obesity in nurses, advanced practice nurses, and nurse educators. J Am Acad Nurse Pract 2008;20:259–265.
20. DiNapoli C, Sytnyk E, Waddicor C. Pediatric nurses' perceptions, attitudes, and knowledge of childhood obesity at an academic medical center. Bariatr Nurs Surg Patient Care 2011;6:125–131.
21. Brown I, Stride C, Psarou A, Brewins L, Thompson J. Management of obesity in primary care: nurses' practices, beliefs and attitudes. J Adv Nurs 2007;59:329–341.
22. Hankey C, Eley S, Leslie W, Hunter C, Lean M. Eating habits, beliefs, attitudes and knowledge among health professionals regarding the links between obesity, nutrition and health. Public Health Nutr 2004;7:337–343.
23. Brown I. Nurses' attitudes towards adult patients who are obese: literature review. J Adv Nurs 2006;53:221–232.
24. Culbertson M, Smolen D. Attitudes of RN students toward obese adult patients. J Nurs Educ 1999;38:84–87.
25. Morrison TG, O'Connor WE. Psychometric properties of a scale measuring negative attitudes toward overweight individuals. J Soc Psychol 1999;139:436–445.
26. Budd G, Mariotti M, Graff D, Falkenstein K. Health care professionals' attitudes about obesity: an integrative review. Appl Nurs Res 2011;24:127–137.

27. Hoppé R, Ogden J. Practice nurses' beliefs about obesity and weight related interventions in primary care. Int J Obes Relat Metab Disord. 1997;21:141–146.
28. Zuzelo P, Seminara P. Influence of registered nurses' attitudes toward bariatric patients on educational programming effectiveness. J Contin Educ Nurs 2006;37:65–73.
29. Larkin H. Capital and candor: to meet the needs of obese patients, hospitals change processes, equipment and attitudes. Hosp Health Netw 2004;78:58.
30. Melin I, Karlström B, Berglund L, Zamfir M, Rössner S. Education and supervision of health care professionals to initiate, implement and improve management of obesity. Patient Educ Couns 2005;58:127–136.
31. American Association of Colleges of Nursing. White Paper on the Education and Role of the Clinical Nurse Leader. Available at www.aacn.nche.edu/publications/whitepapers/clinicalnurseleader.htm. Accessed March 1, 2012.
32. Sherman R, Edwards B, Giovengo K, Hilton N. The role of the clinical nurse leader in promoting a healthy work environment at the unit level. Crit Care Nurs Q 2009;32:264–271.
33. Tornabeni J, Stanhope M, Wiggins M. Clinical nurse leader evolution of a revolution. The CNL vision. J Nurs Adm 2006;36:103–108.
34. Ogden J, Hoppe R. The relative effectiveness of two styles of educational package to change practice nurses' management of obesity. Int J Obes Relat Metab Disord 1997;21:963–971.
35. Gance-Cleveland B, Sidora-Arcoleo K, Keesing H, Gottesman M, Brady M. Changes in nurse practitioners' knowledge and behaviors following brief training on the healthy eating and activity together (HEAT) guidelines. J Ped Health Care 2009;23:222–230.

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