Food for Thought: Exploring Contributors to Obesity in Nurses

Sarah Jane Bigelow

Advisor: Theresa Raphael-Grimm, PhD

The University of North Carolina at Chapel Hill

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Abstract

Obesity is a major public health problem in the United States, and prevalence is higher in those with lower health literacy. Despite the high health literacy of nurses, approximately 55% of US nurses are overweight or obese. The purpose of this paper is to explore contributors to obesity in nurses, especially factors that are evident in the workplace. A review of the literature reveals that this epidemic in nursing is influenced by stress, occurring from a variety of sources: the nature of the job itself, such as long hours and lack of breaks, and from unhealthy eating patterns and norms reinforced in the workplace culture. The literature reveals a bias towards interventions directed toward nurses themselves as the primary targets of change, holding nurses personally accountable for establishing healthier habits. Factors within the workplace itself – availability of healthy food, time allotted for breaks and meals, use of “comfort food” to quell stress – as major contributors to those habits, are often overlooked. Because there is minimal data about the association between nurses’ workplace behaviors and obesity, a survey was developed as part of this project in an effort to examine nurses’ eating habits within the context of their workplace culture. By collecting more complete data about factors external to nurses’ personal accountability and exploring the role of institutional cultures on eating behaviors and norms, perhaps effective efforts to address this epidemic and improve nurses’ health could become the responsibility of health care institutions, not just nurses themselves.
Food for Thought: Exploring Contributors to Obesity in Nurses

Obesity is a major public health problem in the United States (Bassett & Perl, 2004; Centers for Disease Control and Prevention [CDC], 2017b; Manna & Jain, 2015). According to the CDC, one-third of Americans are obese (2017c). There is an inverse relationship between obesity rates and health literacy (Carmona, 2005; Cha et al., 2014; Lam & Yang, 2014; Sanders, Perrin, Yin, Bronaugh, & Rothman, 2014). And yet, nurses, who have exceptionally high health literacy, are among those who struggle with obesity (Esposito & Fitzpatrick, 2011; Han, Trinkoff, Storr, & Geiger-Brown, 2011; Jordan, Khubchandani, & Wiblishauser, 2016; Keogh, 2014; Phiri, Draper, Lambert, & Kolbe-Alexander, 2014; Trossman, 2013; Zapka, Lemon, Magner, & Hale, 2009).

According to Han et al. (2011), 55% of nurses in the US are overweight or obese. Poor health behaviors of nurses have been attributed to factors such as the stress associated with the hospital work environment, stress from obligations and responsibilities the aging and mostly-female demographic face at home, institutional contributors such as long shifts, high nurse-patient ratios, and lack of access to healthy food options, and socialization and workplace cultures that promote the consumption of frequently-present, calorie-dense desserts in breakrooms (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; American Nurses Association [ANA], 2016; Han et al., 2011; Jordan et al., 2016; Keogh, 2014; Parker & Patten, 2013; Phiri et al., 2014; Trossman, 2013; U.S. Bureau of Labor Statistics, 2017; Wojciechowska, 2011; Zapka et al., 2009). The purpose of this paper is to explore phenomenon that contribute to unhealthy eating behaviors of nurses.

**Background and Literature Review**

A healthy nurse is one who actively focuses on creating and maintaining a balance of synergy with physical, intellectual, emotional, social, spiritual, personal and professional
wellbeing. A healthy nurse strives to live life on the wellness end of the wellness/illness continuum, to become stronger role models, advocates, and educators, personally, for their families, their communities and work environments, and ultimately for their patients (ANA, 2017a).

This is a tall order from the ANA. It seems that the work environments of most nurses do not foster a wellness orientation. How, then can the average nurse embody healthy practices given the realities of the workplace? Are these goals even possible?

**Obesity**

Obesity is a prevalent public health issue in the United States. Worldwide, obesity is defined as a BMI over 30 (CDC, 2017b; Manna & Jain, 2015). According to the CDC (2017c), approximately 36.5% of the American adult population is obese and almost two-thirds of the population is either overweight or obese. The average BMI of an adult man is 26.6 and the average BMI of an adult woman is 26.5, both of which are in the overweight category (CDC, 2017a). Considered an epidemic by the World Health Organization, obesity stems from personal behaviors and broad issues related to environments that lack resources and support for healthy behaviors and active lifestyles (Bassett & Perl, 2004).

Many factors contribute to obesity, including family history, being overweight, having lower health literacy as a woman, and poor health behaviors, such as unhealthy eating and lack of physical activity (CDC, 2017b). The CDC (2017b) considers a healthy diet as one supported by the Dietary Guidelines for Americans, which includes eating whole grains, lean protein, low-fat and fat-free dairy products, fruits, and vegetables. Included in a healthy lifestyle is 150 minutes of moderate intensity physical activity a week. Jane E. Brody (2017), a national expert on food and health patterns, argues that children learn an association between food and comfort
rather than food and hunger at an early age when parents feed their children snacks in an attempt to keep them happy, which later contributes to problems with obesity.

Obesity contributes to health complications, such as musculoskeletal problems, hypertension, high cholesterol, coronary artery disease, diabetes, sleep disorders, respiratory issues, liver and kidney dysfunction, and cancer (Manna & Jain, 2015; CDC, 2017b). These complications place people at risk of premature mortality (CDC, 2017b). Obesity also burdens the economy. According to the CDC (2017b), obesity cost the United States $147 billion in 2008. The Congressional Budget Office (CBO) released statistics in 2010 that identified health care spending increased greatly between 1987 and 2007, and the most rapid growth occurred among the obese population. The CBO (2010) predicts the per capita spending in the United States will rise from $4,550 in 2007 to $7,760 in 2020 because of the increased prevalence of obesity. Obesity affects spending by businesses as well; contributing to greater rates of employee absences, obesity costs companies $3.38 billion to $6.38 billion annually (CDC, 2017b). Overall, obesity is a prevalent and costly health issue in the American population with many consequences to personal health and the health of the nation at large.

Health Literacy

Health literacy is the ability to read and understand health information and make well-informed decisions about health (Egbert & Nanna, 2009). There is an association between obesity and health literacy (Carmona, 2005; Cha et al., 2014; Lam & Yang, 2014; Sanders et al., 2014). Approximately 1 in 4 people have basic or less than basic health literacy, and the rates of obesity are significantly higher in these populations (Sanders et al., 2014). Cha et al. (2014) found that individuals with lower health literacy were less likely to look at food labels and had lower quality diets. Health literacy affects individuals beginning at an early age and has been found to significantly impact body weight in adolescence and beyond (Lam & Yang, 2014).
Carmona (2005) argues that health care professionals and the media can prevent obesity by educating those with low health literacy. And yet, nurses, who have exceptionally high health literacy, are among those with an obesity problem (Esposito & Fitzpatrick, 2011; Han et al., 2011; Jordan et al., 2016; Keogh, 2014; Phiri et al., 2014; Trossman, 2013; Zapka et al, 2009). It is common knowledge that nurses learn the health benefits of nutrition and physical activity throughout the nursing school curriculum. Nurses are expected to be able to discuss these subjects with patients (Egbert & Nanna, 2009). However, Esposito and Fitzpatrick (2011) purport that there are barriers to relying on health care providers to increase health literacy. For example, nurses are more likely to recommend and promote exercise if they personally believe it has health benefits.

**Obesity in Nursing**

Obesity is an important issue to address in the nursing profession because it causes personal health problems for the nurse and can negatively impact patient outcomes. For instance, a common problem associated with obesity is imbalance and physical limitations, which increases both the patient and nurse’s risk for a fall or injury (Han et al., 2011; Trossman, 2013). Trossman (2013) states that nurses, like fellow Americans, are increasingly overweight and obese and have a higher risk of developing cardiovascular diseases, diabetes, and other chronic diseases. Obesity plays a role in musculoskeletal pain and sleep apnea, affecting concentration and attentiveness, which are vital to safe nursing practice. This can ultimately lead to errors (Trossman, 2013). Overall, obesity has financial implications in nursing and contributes to high health care costs and absenteeism, putting nurses out of work when they should be the people caring for the health of others (Han et al., 2011). Additionally, nurses serve as role models for their patients and are more credible when they themselves practice the same health behaviors that they recommend to their patients (Zapka et al., 2009).
A frequently cited article by Han et al. (2011) estimates that approximately 55% of nurses in America are overweight. Similarly, Esposito and Fitzpatrick noted approximately half of 112 nurses they surveyed from the New York area were overweight or obese in their 2011 study. However, not all nurses who are overweight or obese see themselves as such (Zapka et al., 2009). Zapka et al. (2009) identify several barriers for nurses making an effort to lose weight, including lack of motivation, low sense of self-efficacy, and lack of skill to make changes that contribute to weight loss. Zapka et al. (2009) propose that health care providers often do not recommend losing weight to patients who are nurses due to the belief that they should “know better,” and say this prevents nurses from becoming aware of their poor health status and need for behavior changes (p. 857). These suggestions provide some insight into why some nurses do not take on healthy behaviors to lose weight, but Zapka et al. (2009) fail to postulate why some nurses do not perceive themselves as overweight or obese in the first place.

The literature suggests many possible origins of obesity in nursing and while stress certainly plays a role, the institutional culture that nurses work in may be significantly contributing to the problem. Patient care units often have food available in nurses’ stations and break rooms, and this food is often used for comfort, celebration and reward. This practice may be playing a critical role in the obesity problem. Lack of time for breaks and meals may also be contributing. A work culture that sabotages nurses’ efforts to develop healthy eating habits, is a major focus of this paper.

The ANA is a national organization that aims to represent the 3.6 million nurses in America. The American Nurses Association (ANA) has recognized the problem of obesity in nurses and is now spearheading a national initiative (2017). Identifying obesity as major health problem among nurses, the ANA created the Healthy Nurse, Healthy Nation™ Grand Challenge as an effort to empower nurses to take on healthier behaviors and reverse the obesity trend (H.
Carpenter, personal communication, October 2, 2017). The ANA created this initiative in an effort to make a “collective impact” in society, meaning it collaborates with organizations across many sectors to help nurses take steps to improving their health (H. Carpenter, personal communication, October 2, 2017; Kania & Kramer, 2011). The ANA provides a definition of a “healthy nurse” and identifies five necessary constructs of the HealthyNurse™. These five components serve as ideal states of health that nurses should aim for in this challenge (Carpenter, 2013). The five components include physical activity, nutrition, rest, quality of life, and safety (ANA, 2017).

Out of the five constructs, the “priority to self-care,” is considered the most important and central to the nurse’s efforts to effectively manage emotional and physical stressors in his or her life both at work and at home (Carpenter, 2013). A fundamental piece of evidence, used as a backbone for ANA’s initiative, and that reflects the need for nurses to change their health habits, is the Health Risk Appraisal. This appraisal was conducted using data from the ANA survey that included responses from 10,688 nurses and nursing students, a majority of whom were nurses working in a hospital setting, between 2013 and 2016. Ninety two percent of the respondents were women. Overall, the Health Risk Appraisal revealed that nurses are more stressed and have less healthy lifestyles compared to the average American (ANA, 2016). For example, 82% of nurses stated they had significant workplace stress. Approximately 57% of nurses reported working through breaks to complete shift work, and 68% placed the health, wellness, and safety of their patients before their own (ANA, 2016).

The wellness of nurses who answered the survey was worse than the average American. The average BMI of respondents was 27.6, which is in the overweight category and higher than the US average. Only 56% of nurses surveyed reported having access to healthy foods during work hours, such as fruits and vegetables. Thirty five percent stated they ate 3 or more servings
of whole grains a day, but only 13% of nurses indicated they had the recommended five or more servings of fruits and vegetables a day. Approximately half of the respondents said they did two or more days of muscle strengthening activities a week. Sixty seven percent of nurses surveyed had access to health and wellness promotion programs. A key statistic from the Health Risk Appraisal is that 51% of nurses reported having musculoskeletal pain, potentially suggesting a consequence of obesity (ANA, 2016).

**Nursing Demographics and Etiology**

According to the ANA (2014), approximately 91% of nurses in the United States are women. American nurses are an aging population. In 2013, the average age of nurses was 50, and 53% of nurses were over 50 (ANA, 2014). This indicates that a majority of nurses are middle aged and in Erikson’s stage of Generativity versus Stagnation. In this life stage a conflict can occur where the woman puts her own needs aside while channeling her efforts toward sharing her knowledge and promoting the development of the younger generation (Wojciechowska, 2011). Wojciechowska (2011) states this self-sacrifice can be fulfilling but also a challenge to one’s mental health as women make efforts to meet demands set by society and “sacrifice” oneself for the better of younger generations (191). Wojciechowska (2011) argues that women, especially, have more demands and expectations in this stage because they are more involved in caring for others, such as in parenthood.

In American society, caring for others as a middle age adult includes caring for one’s aging parents, too. Known as the “Sandwich Generation,” 47% of adults in America between age 40 and 50 care for both their own children and an elderly parent (Parker & Patten, 2013). While most of these adults report they are happy or very happy with their lives, Parker and Patten (2013) note the responsibility of caring for others has financial and emotional implications that can increase one’s level of stress.
Stress

Poor health behaviors of nurses have also been attributed to the inherent stress of the nursing role (ANA, 2016; Han et al., 2011; Jordan et al., 2016; Keogh, 2014; Phiri et al., 2014; Trossman, 2013; Zapka et al., 2009). Susan Trossman (2013) states, “Like many Americans with high-stress jobs and lots of responsibilities, it sometimes seems like the odds are against nurses to eat right, exercise, and get enough sleep.”

Nurses face unique situations during the workday that place them at a higher level of stress than the average American. A 2011 survey of the general population found that of 1,546 working adults in the United States, 36% were stressed out while at work and 20% believed their stress level was high (American Psychological Association [APA], 2011). Stress over low salaries and lack of growth were rated higher than work load and hours (APA, 2011). On the contrary, a survey of nurses indicated that 82% found themselves at a “significant” level of work-related stress (ANA, 2016). The ANA suggests that the reasons for nurses’ stress include daily hazards nurses encounter related to occupational safety, such as lifting heavy objects, as well as working through breaks to complete tasks, and also to working long hours (ANA, 2016). The ANA (2016) notes that these hazards affect the wellness and personal lives of nurses more significantly than other professions.

Aiken et al. (2002) found that higher nurse-patient ratios lead to poorer patient outcomes and an increased nurses’ likelihood of burnout and job dissatisfaction in a study of 10,184 nurses across 168 hospitals. Aiken et al. (2002) state that higher ratios impede nurses from assessing and detecting changes in patients’ conditions as quickly, leading to worse outcomes and higher rates of patient mortality. The authors identify “unrealistic workloads” as the main contributor to burnout and dissatisfaction among nurses and suggest this has led to low retention and nursing shortages (Aiken et al., 2013, p. 1987).
In addition to experiencing high levels of workplace stress, nurses report poor coping strategies to address it, which can contribute to health consequences like obesity (Han et al., 2011; Jordan et al., 2016; Keogh, 2014; Phiri et al., 2014). Sixty nine percent of 3,500 nurses surveyed in the UK identified workplace stress as a significant factor in adopting an unhealthy diet (Keogh, 2014). In a survey conducted in South Africa, nurses reported drinking excessive quantities of caffeinated beverages to cope with working long hours (Phiri et al., 2014). Han et al. (2011) also found that prevalent stressors in the nursing profession and lack of support during the workday contribute to an increased intake of unhealthy, high-energy foods and sweets.

Jordan et al. (2016) reports that stress in the nursing profession, such as lack of autonomy, increased workloads and constant demands on time, contributes to interpersonal conflicts with other staff and with patients, and bullying. After providing a questionnaire to 120 Midwestern nurses, Jordan et al. (2016) discovered 92% reported elevated stress levels, 69% reported exercising below the recommended 150 minutes week, over two-thirds reported eating less than five servings of fruits and vegetables a day, and 63% reported eating additional portions of food as a coping strategy. Jordan et al. (2016) postulate that nurses take on unhealthy habits, such as being sedentary and eating unhealthily, in order to cope, and that these unhealthy habits contribute to the obesity problem in nursing. The authors argue that in order to better cope with the stress, nurses need to develop high levels of self-efficacy to face the demands of the profession and, in addition need institutional support to create a healthy work environment (Jordan et al., 2016).

**Stress Experienced by Women**

It is important to reiterate that there are more women than men in the nursing profession. Women have different stressors and obligations in life and often are the primary caretakers at home. The 2016 American Time Use Survey by the U.S. Bureau of Labor Statistics indicates
responsibilities outside of work are not shared equally between men and women (H. Carpenter, personal communication, 2016; U.S. Bureau of Labor Statistics, 2017). In 2016, working women spent more time than working men doing childcare and household activities, including cleaning, laundry, and food preparation. For those with children, women spent 1.1 hours a day providing physical care whereas men spent 26 minutes on average. Working men spent more time doing leisure activities than women, such as watching TV and exercising (U.S. Bureau of Labor Statistics, 2017).

A brief glimpse into magazines commonly read by women indicates that women receive conflicting messages about health in the media. A January, 2018 issue of People Magazine exemplifies this phenomenon. For example, a recipe for cake appeared with the suggestion to make it for loved ones and on the adjacent page was an advertisement for a healthy soup by Oprah (Heiskel, 2018; O, That’s Good, 2018). Results were similar in Cosmopolitan. The January, 2018 UK issue stresses the importance of health, including advertisements for seaweed and vegan bacon and cutting back on alcohol whereas the February, 2018 issue advertises calorie-rich foods such as Dove chocolate and Skittles and supports making high-calorie alcoholic drinks. A photo in the February, 2018 issue shows chips and wine in a care package to a friend who has been fired (p. 124). Overall, the February issue has equal proportions of advertisements and articles promoting unhealthy foods or activities and those promoting exercise and health-oriented activities (2018). These examples indicate the prevalence of conflicting messages directed by the media towards female audiences.

Nurses, who are predominantly female, deal with stress both at work and at home. As woman in American society, they are the primary caretakers of children and elderly parents, they have more household responsibilities, and they are socialized into a mindset of self-sacrifice for the benefit of others. They are bombarded with messages in the media to reward themselves
with calorie-dense foods. Taken together, these factors predispose nurses to overweight and obesity but to make matters worse, their workplace cultures often sabotage individual efforts towards healthy behaviors.

**Institutions**

Several sources in the literature associated hospital institutional factors such as shift work and prevalence of unhealthy vending machine foods with obesity and poor health habits of nurses (Han et al., 2011; Jordan et al., 2016; Keogh, 2014; Phiri et al., 2014; Trossman, 2013). These authors cite that one common problem for nurses in the hospital workplace is the lack of time to take adequate meal breaks (Keogh, 2014; Phiri et al., 2014; Trossman, 2013). In her analysis of a survey of 3,500 nurses and their eating habits, Keogh (2014) stated that 79% of the nurses reported lack of breaks as a reason for their unhealthy eating habits. Many of the nurses reported they relied on vending machines for meals (Keogh, 2014). In a 2014 study of nurses in South Africa, nurses also reported vending machines and fast foods as the cheapest and most convenient and available options to obtain food during the workday (Phiri et al., 2014). Nurses in this study and others report fatigue after long hours as another reason for relying on vending machines and not preparing healthy meals for work (Keogh, 2014; Phiri et al., 2014).

Han et al. (2011) also note that short breaks, shift work, and high workload contribute to obesity because they promote eating high-calorie foods but emphasize that the effect of shift work on sleep is an important contributor to obesity. Han et al. (2014) suggest that rotating shifts and night shifts increases nurses’ risk for weight gain because they change circadian rhythms, altering food metabolism and metabolism after physical activity. Additionally, the authors argue that nurses who work successive 12-hour shifts in a row have less sleep on average based on a previous sleep study of nurses, making them less likely to adhere to healthy behaviors.
Esposito and Fitzpatrick (2011) and Trossman (2013) stress that nurses should take it upon themselves to change their unhealthy habits, such as bringing healthy snacks to work instead of relying on vending machines. However, all sources agree that real change needs to occur at the institutional level (ANA, 2016; Esposito & Fitzgerald, 2011; Jordan et al., 2016; Phiri et al., 2016; Trossman, 2013). Han et al. (2011) advocate for more availability of healthy food in the workplace and sufficient time to take breaks and obtain food. They suggest offering healthier vending machine options and food delivery services as strategies to increase access to healthier foods during the workday, especially for night shift nurses (Han et al., 2011).

**Socialization and Work Culture**

It is common knowledge that high-calorie, “sweets” are frequently present in hospital unit breakrooms. Phiri et al. (2014) state that the work culture around eating can contribute to unhealthy eating habits. Phiri et al. (2014) found that coworkers had influence on each other’s eating habits; for example, a nurse stated they felt guilty for not eating cake and was questioned by peers on their decision to not do so. This nurse stated they felt “obligated” to eat unhealthily as a result of comments from coworkers (Phiri et al., 2014, p. 11). Zapka et al. (2009) add that patients and families support unhealthy eating habits by providing sweets to nursing staff to show their thanks. These tempting treats, readily available, are difficult to refuse by the hungry nurse who has little time to go off the unit to obtain a meal.

**Limitations and Gaps in the Literature**

There are gaps in the literature around the influence of work culture on the health habits of nurses. The literature fails to explain why celebration, comfort, and rewards are associated with calorie-dense foods in the nursing profession, a highly educated group of individuals, and furthermore why the caloric-dense foods are commonly available in the nurses’ breakroom. There are no studies specifically aimed at identifying patterns of food consumption and
nutritional value of food found in hospital unit breakrooms. There are also no studies that
address the actual effectiveness of eating as a method of reducing stress, such as whether nurses
actually experience food as comforting and rewarding in stressful situations. Other gaps in the
literature pertaining to obesity in the nursing profession include the lack of studies on
psychological effects of long hours or the levels of stress that nurses experience in relation to the
nurse-patient ratios. More studies are needed on how shift work affects lifestyle behavior
decisions of nurses.

These gaps in the literature are likely due to several factors, not the least of which is the
fact that the association between eating and stress is difficult to measure. Surveys given to
nurses about a sensitive topic such as obesity and unhealthy eating or other lifestyle habits may
be emotionally activating, that is, the nurse may realize intellectually that s/he has fallen into
unhealthy habits and may experience guilt at having done so, yet, in an attempt to minimize the
importance of this, may deny the extent to which these habits are negatively impact health. In
addition, reports of personal habits are notoriously inaccurate. Walter Willet, a renowned
nutritionist, supports that people consistently underreport their dietary intake as well as
inaccurately measure their physical activity level when asked to rely on memory to self-report
their habits (2013).

**Focus for Change**

The ANA is taking on the nurse overweight and obesity problem, but many of their
efforts are targeted towards increasing awareness among individual nurses themselves. And
while this is a critical and important effort, it does not address the stress of the job itself that is at
the heart of the problem. It does not directly address the work cultures that generate that stress
and that promote unhealthy coping strategies, such as consuming low nutrition, calorie-dense,
foods.
Methods

While there is some preliminary data that begins to describe factors that could be at play in the problem of nurse overweight and obesity, several other factors remain unknown. More exploratory research needs to be done to identify other factors and create effective solutions for change. The survey in Appendix A has been developed as an example of exploratory research that aims to more specifically identify factors within nurses’ work environment, especially the use of food that may contribute to the overweight and obesity problem in nursing.

Discussion

The review of the literature indicates that there are many contributors to the overweight and obesity epidemic in the nursing profession, particularly in the hospital setting. In the hospital setting, nurses are faced with a high-stress work environment with few breaks and long work hours. The long hours pose as a barrier to exercising as often as the 150 minutes recommended per week. The lack of access to healthy food options during the day and a need for comfort both during and after a long, stressful day contribute to unhealthy eating habits. The presence of high-calorie desserts in breakrooms along with the pressure to eat them is a phenomenon identified in the literature as another barrier to eating healthily during the workday. These institutional factors set nurses up for failure in efforts to eat well, sleep well, and exercise in the same frequency they recommend to patients, and all of these habits contribute to weight gain. Additionally, they contribute to burnout and dissatisfaction.

The survey, developed as a part of this paper, explores the potential connections between nurses’ beliefs and behaviors around eating at work and certain habits in nursing. By collecting data on workplace eating behaviors and emotions or beliefs that contribute to these behaviors, the survey attempts to identify typical factors, such as availability of and time for accessing healthier foods that are less understood yet contribute to unhealthy habits among nurses. In
doing so, this survey aims to fill in the gaps in the research and expanding the focus of responsibility of overweight and obesity from the nurses themselves to the institutions nurses work in.

Because many of the efforts to increase the health behaviors of nurses are directed at the nurses themselves rather than the workplace cultures, this survey serves as a preliminary effort to redirect the focus and more fully examine the norms, practices and food accessibility that contribute to nurse behaviors. The data provided by this survey is much needed in order to address the overweight and obesity in a more holistic manner because it will bring to light the less understood contributors to this epidemic that are unique to the nursing profession. Understanding and addressing these workplace and other contributors to the overweight and obesity epidemic rather than simply holding individual nurses accountable could significantly contribute to more effective and lasting efforts to positively impact the problem.

Further research, including the findings from the survey submitted here, could be potentially helpful in adding to the data and move the conversation away from nurse-focused responsibility for change, to institution-focused change. Again, because the influence of the workplace on nurses’ health and well-being is poorly understood, significant progress towards increasing nurses’ health is not going to be made unless the workplace itself changes and those changes will not be embraced by institutions without reliable data to better identify the workplace factors.

It is recognized that in general, nurses have many other demands in life that are stressful and encourage unhealthy lifestyles. Being predominantly female, they often care for their own children and or parents outside of work, and then face the stressors of the workplace. While we, as nurses, pride ourselves in being caring, self-sacrificing and compassionate, these virtues set us up for neglect of our own health needs. Coupled with constant workplace stress, this is a set-up
for poor health behaviors. ANA is focusing on a nation-wide health promotion process for nurses but this alone is unlikely to produce lasting change. It is at the institutional level where changes need to be made in an effort to create less stressful workplaces where staff-patient ratios are adequate to support nurses’ break times, where high-quality food is readily accessible, and where nurse wellness is a workplace priority.

**Suggestions for Additional Research**

A suggestion for future research would be a study on long term weight gain of nurses in comparison to teachers. Both professions have a foundation of caring for others and are comprised mostly of women of similar age. Other research suggestions include studies on weight gain of nurses from the same graduating classes who go into outpatient versus inpatient settings. A study of health habits of nurses on units who are given full, uninterrupted breaks versus those who are not could give insight to how break times influence eating patterns of nurses.

To eliminate the problem of survey bias and produce the most accurate results, more research is needed through observational studies as opposed to self-report. Given the lack of information in the literature of the presence of unhealthy foods in nursing staff breakroom, a study of great value would be to have a close circuit TV of breakrooms at 20 sites in hospitals across the country. This would give measures on how many low nutrient, calorie dense foods are present in breakrooms and the frequency with which staff indulge in them. This study would require a difficult approval process, but it would produce more accurate results and insight to the work culture around eating than would self-report methods.

**Conclusion**

The overweight and obesity epidemic is prevalent the nursing profession and has many physical and economic consequences. This trend is difficult to reverse because while some
contributors are readily known, others that are less understood yet important and unique to the profession have been left out of the conversation. The purpose of this paper was to explore some important, less understood, workplace contributors to the obesity epidemic in nursing.

Currently, most efforts toward addressing the overweight and obesity rates in the nursing profession have a limited focus, that is, they target interventions on nurses themselves. In order to change the trajectory of overweight and obesity rates in the nursing profession, the focus must shift to addressing key contributors of the work culture, that significantly influence the phenomenon. The survey provided in this paper is an effort to do so and promote the development of more effective and complete data so that solutions to address the problem encompass a wider range of contributing factors.

All in all, nurses help patients achieve optimal health, but it is time to consider all possible ways to improve the health of nurses themselves.
References


Appendix A

Workplace Influences on Nurses’ Eating Behaviors (WIN-EB) Survey Tool

This survey attempts to gather valuable information about nurses’ work environments and how some environmental or work-related factors influence aspects of nurses’ well-being. Your input on this survey will help us better understand your behaviors at work and the institutional factors that influence those behaviors. Several questions allow for more than one response; please mark all responses that apply.

1. **In your opinion, what contributes to the overweight and obesity epidemic among nurses? Mark all that apply.**

   □ Lack of time to prepare healthy meals
   □ Lack of healthy options available during workday
   □ Lack of awareness about the benefits of healthy eating
   □ Lack of sleep related to shift work
   □ Lack of time for exercise
   □ Lack of interest in exercise
   □ Desire to have “comfort food” available
   □ Sense of having sacrificed for others when delivering nursing care and wanting to reward self with good tasting (but often high-calorie) foods
   □ Societal factors related to being a woman (if applicable)
   □ Stress
   □ Other: _____

2. **Of the causes that you identified in question #1, please estimate, in percentages, how much you think each of these factors contributes to the problem? (Your total should add up to 100%).**

   Lack of time to prepare healthy meals: _____%
   Lack of healthy options available during workday: _____%
   Lack of awareness about the benefits of healthy eating: _____%
   Lack of sleep related to shift work: _____%
Lack of time for exercise: _____%
Lack of interest in exercise: _____%
Desire to have “comfort food” available: _____%
Sense of having sacrificed for others when delivering nursing care and wanting to reward self with good tasting (but often high-calorie) foods: _____%
Societal factors related to being a woman (if applicable): _____%
Stress: _____%
Other: _____%

3. **At your workplace, do you have time to eat during your shift?**

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*For questions 4-6, the term “healthy foods” is used. For purposes of this survey, healthy foods are defined as: fresh or cooked fruits and vegetables with minimal butter, oil, gravy or added sugar; lean meats, low-fat dairy products, and whole grain breads and cereals.*

4. **At your workplace do you have access to healthy foods (fruits, vegetables and lean meats prepared in a manner that has little butter, heavy sauce or added sugar)?**
   - [ ] Yes
   - [ ] No

5. **At your workplace can you purchase healthy foods easily? (Are healthy foods available from a cafeteria that is within reasonable distance from your unit)?**
   - [ ] Yes
   - [ ] No

6. **If your answer to number 5 is yes, please indicate the frequency with which you purchase these healthy foods for lunch, dinner or breaks while you are at work.**
7. If you have access to healthy foods but don’t often eat them, please indicate the reason(s) below:

☐ Too expensive ___

☐ Poor quality ___

☐ Not very tasty ___

☐ Take too long to eat ___

☐ I don’t see the benefits to eating them ___

☐ Not pleasurable ___

☐ Other: ___

8. What factors determine your food choices at work? (Please mark all that apply).

☐ Vending machine offerings

☐ Whatever is being served in the cafeteria

☐ How long of a break I have

☐ How tired I am

☐ What shift I am working

☐ I eat whatever food is available in the unit break room

☐ I eat snacks I’ve brought from home

☐ Other: ___

9. Of the choices you selected above, which do you believe have a negative impact on your eating habits? (Please mark at that apply).
□ Vending machine offerings
□ Whatever is being served in the cafeteria
□ How long of a break I have
□ How tired I am
□ What shift I am working
□ I eat whatever food is available in the unit break room
□ I eat snacks I’ve brought from home
□ Other: ___

10. How often is celebratory food (cake, cookies, donuts, candies, chocolate, etc.) readily available on your unit?

11. How often during your usual work week do you eat celebratory foods (cake, donuts, candies, chocolate, etc.)?

□ 1-2 times
□ 3-5 times
□ 5 times or more

12. How often are healthy foods readily available on your unit?

(Please remember: For purposes of this survey, healthy foods are defined as: fresh or cooked fruits and vegetables with minimal butter, oil, gravy or added sugar; lean meats, low-fat dairy products, and whole grain breads and cereals.)

13. Nurses often celebrate important holidays or events at the workplace. Typically food is part of those celebrations. Coworkers often build a sense of cohesion through sharing food. How much do you believe food plays a role in your work celebrations?
1. Are these foods often calorie dense (e.g. cakes, cookies, candy, pizza, lasagna, etc.)?
   - Yes
   - No

2. Do you feel that it would be impolite or antisocial to not join with your teammates in eating celebratory foods?
   - Yes
   - No

3. What shift do you primarily work? (Please mark all that apply).
   - Days
   - Nights
   - Rotating, mostly nights
   - Rotating, mostly days
   - Rotating, equal amount of days and nights
   - Mostly weekdays
   - Mostly weekends

4. On average, how many weekend shifts do you work per month? ___

5. Demographics:
   a. Age: ___
   b. Weight in pounds: ___
   c. Height in feet and inches: ___ft, ___in
   d. BP: ___/___
   e. Please list any physical limitations you have (bad knees, back injuries, other): ___