

Lifestyle Patterns, Eating Practices and Obesity among Nurses: A Review

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ABSTRACT

Nursing professionals play an extremely significant role in healthcare delivery. They are involved in multiple occupational activities, which cause stress and can lead to detrimental effects on their personal health. Nurses may often have to alter their dietary and lifestyle behaviour to meet the several urgent demands of their profession. This can put them at risk to various chronic health conditions that can further influence their occupational chores. This paper highlights the lifestyle and eating patterns, weight and health status of nurses; and the impact of these on the professional role of nurses. As very few studies are available on the dietary intakes and activity patterns of nurses, more research is needed on these aspects. An understanding of all these issues is important to plan suitable diet and lifestyle-related interventions for nurses so as to promote optimum health and productivity among them.

Keywords: nurses, nursing, lifestyle, eating practices, obesity.

INTRODUCTION

Nurses are people trained to provide care to the sick or infirm. They care for people each day in different settings such as hospitals, physician offices, schools, and public health facilities; and are caregivers, lifesavers, cheerleaders, confidants, trusted resources, and much more. ^[1] Nursing is generally perceived as a physically and psychologically challenging profession. ^[2] The mission of nursing in society is to help individuals, families and groups to determine and achieve physical, mental and social potential, and to do so within the challenging context of the environment in which they live and work. Nursing is a tough twenty-four seven job and most nurses work even on weekends, holidays, and have variable shifts. This profession requires extensive knowledge, quick thinking, patience and compassion.

Due to many roles that the nurses play, nursing profession tends to exert a lot of stress on individuals who are involved in it. Various occupational and personal stressors, such as caring for patients who are seriously ill, sleep deprivation due to variable and long work schedules, and addressing family responsibilities, can have a detrimental effect on the personal health of nurses. ^[1] It is well known that prolonged stress is a precursor of burnout, which is considered a major problem for many professions, and nurses are considered to be particularly susceptible ^[2] as they often encounter stressful situations due to special demands of their profession. ^[3] Nursing staff, particularly those working at the bottom of the hierarchy such as Staff Nurses and Nursing Sisters, who end up sharing most of the work burden, are most afflicted with occupation-related stress. ^[4] Moreover, nurses working in large city hospitals show

more distress and lower levels of morale, job satisfaction and quality of work life than others. [5] It has also been seen that those working in public hospitals are more stressed than their counterparts working in private hospitals. [6]

The nurses may often have to alter their eating practices due to the demands of their work and this may result in their inappropriate dietary intakes and altered nutritional status. Stress due to multiple work roles can put nurses at risk of developing inflammation, oxidative stress, and obesity. This in turn often leads to chronic health conditions such as diabetes and cardiovascular diseases. [1] Furthermore, nurses are trained to consider patient's quality of care and life; and they rarely consider that they themselves or others in the profession may need care. [7]

Lifestyle Patterns of Nurses

Nurses have an established and expanding public health role [8,9] and a regulatory requirement to engage in health promotion with their patients. [10] They are on the front line in healthcare; and as they adopt healthy living practices, the patients they care for may be more inclined to adopt healthy choices as well. The goal of any healthcare provider is to improve the lives of other people. Nurses can do that even more effectively by taking the lead and deciding that healthy living is as important to them as it is for the people they care for on a daily basis. [1] However, work-related stressors may influence the ability of nurses to engage in regular exercise and maintain positive dietary behaviour.

Research has shown that levels of physical activity among nurses is low, with many nurses failing to meet the United Kingdom (UK) government's recommended minimum of 30 minutes exercise five times a week. [11-14] Malik et al [15] in their study on 325 preregistered nurses and 551 registered nurses in a University teaching hospital reported that while nurses were generally aware of the need for regular physical activity, this knowledge was not always translated to their own behavior;

lack of time was cited as the main barrier to being physically active. This supports suggestions in the literature that work-related stressors, such as shift work and long working hours, may lead to a neglect of physical activity needs in the nursing profession, [13,16,17] and this is worrying because low levels of physical activity have been associated with other negative health behavior. [18,19]

Shift work is defined as work outside of daytime hours, including irregular or rotating schedules, and evening and night work. [20] Individuals, such as nurses, working nights and rotating shifts rarely obtain optimal amounts of sleep. In fact, an early objective study showed that night shift workers obtain 1 to 4 hours less sleep than normal when they were working nights. [21] Sleep loss is cumulative and by the end of the work week, the sleep loss may be significant enough to impair decision-making, initiative, integration of information, planning and plan execution, and vigilance. The effects of sleep loss are insidious and until severe, are not usually recognized by the sleep-deprived individual. [22] Scott et al [23] have suggested that it is not uncommon for nurses and other shift workers to acknowledge falling asleep when working in night shifts.

Work stressors may account for the higher prevalence of smoking in the nursing profession when compared with individuals in other health professions. [24] Studies of registered and pre-registered nurses reveal that nursing professionals across a number of different countries tend to exhibit higher rates of smoking than both the general population and other health professionals, with some studies showing that as many as 45-57% of nurses are current smokers. [25-29] Furthermore, Hodgetts et al [30] found that of the current smokers in their sample of health professionals, nurses were significantly less likely to be considering quitting smoking when compared with other health professionals. McKenna et al [31] studied smoking habits in 1074 qualified nurses in Northern Ireland and found that although

most smokers had commenced smoking before qualifying, there were reports of an increase in smoking after becoming a nurse, suggesting that nursing stress played a role in maintaining smoking habits.

Eating Practices and Obesity among Nurses

Poor diet and low levels of physical activity are known risk factors for overweight and obesity. [32] Reported prevalence of overweight and obesity among nurses internationally ranges between 54.5% and 79.1%. [33-36] Research has found that qualified nurses in the UK have poor health-related behaviours. In a study on nurses in England, it was found that just under half (45.4%) of the nurses did not meet government physical activity guidelines, over half (58.0%) did not consume the recommended five portions of fruit or vegetables each day, and over a third (36.3%) ate foods high in fat and sugar content on a daily basis and thus it was suggested that individuals' health-behaviours may be driving the pattern of overweight and obesity observed. [15]

A cross sectional study done by Kyle et al [37] in Scotland to estimate overweight and obesity prevalence among nurses revealed that over two third nurses were overweight or obese. It was also seen that prevalence of overweight and obesity was higher in nurses than other health care professionals. It was suggested that the reasons for increased prevalence of overweight and obesity among Scottish nurses warranted further investigation, but were likely due to the combination of individuals' health-related behaviours and occupational factors. In a cross-sectional study on 250 doctors and nurses between 18 and 65 years of age working at a tertiary care medical college hospital in Tamil Nadu, India, Hegde et al [38] reported that prevalence of diabetes mellitus and hypertension among nurses was 5.6% and 13.7% respectively while prevalence of overweight and obesity was 12.9% and 3.2% respectively.

Occupational factors, specifically nurses' working patterns and access to healthy food in the workplace, may also influence overweight and obesity prevalence. In a study conducted by Phiri et al [39] in public hospitals of the Western Cape Metropole, South Africa; nurses frequently mentioned lack of time to prepare healthy meals due to long working hours and being overtired from work. The hospital environment was perceived to have a negative influence on the nurses' lifestyle behaviors, including food service that offered predominantly unhealthy foods.

The shift work of nurses has been found to increase their health problems. It disrupts regular sleep, eating and exercise habits, potentially making it more difficult to maintain a healthy weight. [40] Additionally, research has shown that nurses regularly consume foods that are high in fat and sugar content, [14,41] which has been associated with time pressures [13] and shift-work patterns [42] in the nursing occupation. A systematic review by Zhao and Turner [43] found that shift work was associated with poorer nutritional intake and increased body mass index (BMI). In a study conducted by Zverev [44] among Malawi nurses, it was revealed that irregular shift work interfered with the number of meals eaten per day with only one full meal being taken by most of the nurses during the night-shift phase of the shift cycle. A study by Sahu and Dey [45] among 40 nurses in rapidly rotatory shift and 35 general duty nurses in different government hospitals in West Bengal, India revealed a significant difference in preferred time and actual time of food intake by nurses, as a result of which different digestive problems like indigestion, acidity, loss of appetite, etc. were found more among rotating shift nurses compared to general duty nurses. The nurses when worked in night shifts took dinner too early before leaving for the duty and took very little food.

In the longer-term shift work has also been found to increase the risk of chronic diseases, including breast cancer,

cardiovascular disease, and diabetes, [20] as well as gastrointestinal disturbances [46] and depression. [47] A study on 53,487 female nurses who worked more than 20 years of rotating shifts found a significantly higher risk of endometrial cancer compared with women who never worked night shifts. [48] A cross-sectional study conducted by Kim et al [49] in Korea among 9,989 nurses revealed the duration of shift work was positively associated with prevalence of overweight/obesity in nurses in Korea.

Nursing students have been found to be exhibiting poor dietary behaviour and low levels of nutrition knowledge, which are likely to be continued even when they become nursing professionals. A study by Marquis [50] showed that pre-registered nurses exhibited poorer dietary habits when compared with registered nurses. One potential explanation for this could be related to the heavy study schedules and financial restraints of nursing students, which may lead to an over-reliance on convenience foods. A study by van dan Berg et al [51] on body weight, eating practices and nutritional knowledge amongst university nursing students in South Africa concluded that nursing students had a high prevalence of overweight and obesity, poor eating habits and inadequate knowledge on key nutrition issues, which may impact negatively on their efficacy as future health ambassadors to the public. However, several interventional studies from around the globe have shown that specific health and lifestyle interventions can be successful in improving nutritional intake among nursing students. [52,53]

A study on nutritional knowledge, food consumption behavior and nutritional status of nursing students in Thailand by Musikthong et al [54] found that although the nursing students had moderate levels of nutritional knowledge and attitude towards food, they were likely to engage in inappropriate food consumption behaviors. The students who were older were more likely to practice inappropriate food

consumption behaviors. The results indicated that some of the students had nutritional status lower than normal levels; some of them were obese, whereas some of them were at risk. It was concluded that the Faculty of Nursing should develop education related to nutrition in the curriculum intensively, especially in undergraduate program, and promote good attitudes to selecting appropriate food for healthy and well-being. Student development affairs should promote appropriate food consumption behaviors to improve nutritional status of nursing students by motivating and promoting exercise. [54]

Implications of Poor Health Behaviour and Obesity among Nurses on their Professional Role

Since the public views primary care providers as valuable sources of nutritional guidance and lifestyle advice to prevent and treat non-communicable diseases, healthcare professionals play a key role in this regard through patient education. [55-57] However, studies identify significant barriers which prevent healthcare workers from offering dietary support and these include lack of time, of teaching materials, of nutritional knowledge and of confidence, on the part of the provider. [58,59]

Nurses are the largest occupational groups among health care professionals and could potentially influence the health practices of many patients. They have more contact with health care recipients than any other providers. Nurses and other healthcare providers are cognizant of their weight and image. It is not unreasonable to think that the body weight of nurses may affect how nurses provide care to patients or how patients perceive the care a nurse provides. Nurses with a high BMI have reported feeling self-conscious about their own body size when discussing obesity with patients and feeling guilty that they were not good role models for patients while, nurses with a lower BMI had concerns that they lacked empathy or authentic experience when discussing obesity with patients. [60] In order

to provide successful nutrition education, it is important to establish a trusting relationship between the patient and the nurse, preferably without a focus on the weight of the nurse. Research has demonstrated that nurses have concerns about both providing complex nutritional information to patients and patient perceptions of their body image. [61,62]

Studies have also suggested that there may be a link between nurses' health practices and their tendency to raise lifestyle issues with patients. [63,64] McDowell et al [63] found that nurses who engaged in regular exercise were more likely to promote physical activity among patients than nurses who were physically inactive. Similarly, studies have shown that nurses who were smokers themselves were less willing to promote healthy behaviour among patients who smoked than nurses who were not current smokers. [25,31,65,66] Recent systematic reviews have shown that health care professionals are more likely to discuss weight, diet and lifestyle issues with their patients, if they themselves have a normal BMI. [67] One study found that people in the public were less confident in an overweight nurse's ability to provide education on diet and exercise and were more confident to receive diet and exercise education from a normal weight nurse. [68]

Poor health behavior leading to poor physical and mental health has been linked to high levels of fatigue, stress and burnout, and in turn a high level of sickness absence in the nursing profession. [16,69,70] It has been reported that high prevalence of overweight and obesity and health problems associated with these may also lead to increased sick leave or premature workforce exit, and have a negative impact on the nurses' public health role. [9] Sickness absence among nursing staff has significant implications for the quality of care given to patients, with lower staffing levels resulting in less one-to-one time with patients and poorer work performance. [70,71] It has been suggested that poor health and lifestyle behavior exhibited by nurses not only influences their

nursing performance but may also have an impact on the credibility of their health-promotion messages. [60,61]

CONCLUSION

In this review, an attempt has been made to highlight the research carried out on the lifestyle and eating practices, and weight and health status of nurses. The paper also enumerates some implications of the lifestyle and eating behaviour of nurses on their professional roles. It is well known that nurses are the frontline health workers who come in maximum contact with the patients. They are exposed to high levels of physical and emotional stress due to their long working hours, shift duties, sleep deprivation, fear of exposure to various infectious diseases and constant confrontation with suffering, grief and death. Nurses are also expected to look after the nutritional needs of their patients and reinforce nutrition education. However, the nurses may continue to look after their patients at the cost of their personal health and foregoing their family responsibilities. As a consequence of multiple work pressures, nurses may have inappropriate lifestyle and eating practices, which may make them overweight and obese and further increase their vulnerability to various nutritional and health problems. These problems may result in early exit of nurses from their profession. Several studies have indicated that there is increased prevalence of obesity and smoking among nurses and suitable health and lifestyle-related interventions can promote good health among the nurses and help them pursue their occupational roles effectively. Involvement in physical activities may also help in relieving stress related to the nursing profession to some extent.

Only a few studies have explored the eating and lifestyle practices of those in the nursing profession while studies on the dietary intakes and activity patterns of nurses are even fewer. Attempts need to be made to study the dietary practices and intakes, and activity patterns of the nurses to

understand the causes of inappropriate weight status among them, so as to plan suitable dietary and lifestyle interventions to promote optimum health among the nurses.

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