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# NUTRITION STRATEGIES FOR REDUCING RISK OF BURNOUT AMONG NURSES

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**Abstract**
Burnout is a natural by-product of the fast-paced, emotionally taxing, and time-sensitive nature of employment in the health care industry. Despite research showing that a balanced diet might prevent burnout in trauma surgeons, health care workers are frequently found to have inadequate diets and a higher risk of obesity. In order to decrease the shortage of healthcare professionals, maximize training investment, and enhance the quality of life for these frontline workers, dietary interventions aimed at reducing burnout among physicians and other health care professionals are required. Well-balanced meals improve productivity at work and reduce the incidence of depression. The purpose of this study was to investigate the obstacles to healthy eating among hospitalized nurses and to demonstrate ways for lowering the risk of burnout among nurses.

**Keywords:** nutrition, strategies, burnout, nurses.

## Introduction

Burnout is a natural by-product of the fast-paced, emotionally taxing, and time-sensitive nature of employment in the health care industry. Burnout is common in this long-term high-stress work environment; 31% of nurses who directly care for patients and 37% of nurses employed in assisted living facilities report having burned out, and these numbers were probably made worse by the

COVID-19 pandemic. Because of their high rates of burnout, health care practitioners may eventually decide to leave the industry, which will add to the scarcity of these experts. One variable that can be changed in relation to burnout risk is diet. Chronic stress, similar to that felt by burnout sufferers, has been demonstrated to affect the kinds and quantities of food that people eat, leading to both overeating and undereating, and stress hormones have been connected to obesity in the abdomen. Chronic illnesses including type 2 diabetes and cardiovascular disease, which are linked to poor nutrition and lifestyle choices, have also been linked to burnout. Emotional and compulsive eating behaviors associated with a higher body mass index have been connected to burnout in women. Although the evidence for dietary therapies to prevent burnout is weak, it is encouraging. Research has shown that while self-reported healthy eating is protective against burnout, increased fast food intake is not (Reith, 2018).

Despite research showing that a balanced diet might prevent burnout in trauma surgeons, health care workers are frequently found to have inadequate diets and a higher risk of obesity. In order to decrease the shortage of healthcare professionals, maximize training investment, and enhance the quality of life for these frontline workers, dietary interventions aimed at reducing burnout among physicians and other health care professionals are required. Applying current research on nutrition interventions for mental health issues, behaviour modification techniques, and systemic adjustments to encourage healthy eating among medical personnel could be the main focuses of strategies (Alexandrova-Karamanova et al., 2016).

Advocating for a healthy lifestyle, hospital nurses take up unhealthy eating habits. According to studies, over two thirds of hospital nurses in the UK ate less than five servings of fruits and vegetables each day and frequently overindulged in high-fat and high-sugar foods. Similarly, researchers found that 95.4% of hospital nurses in Australia did not consume the recommended daily amounts of fruits and vegetables. Furthermore, a study conducted in the Massachusetts hospital discovered that the average intake of fat calories (34.0%) and fewer than four servings of fruits and vegetables was consumed by the nurses. In addition, hospital nurses have inconsistent eating schedules. A few nurses ate late-night snacks instead of meals. Some people at work constantly snacked. Excessive candy consumption was also prevalent among nurses (Shafi et al., 2020).

Well-balanced meals improve productivity at work and reduce the incidence of depression. Consuming fruits, vegetables, and whole grains also boosts energy and mood. On the other hand, eating poorly might result in early mortality, disability, and non-communicable illnesses (NCDs). These non-communicable diseases (NCDs) include obesity, diabetes, cancer, and cardiovascular diseases (CVDs), which account for the majority of deaths globally. The development of melancholy, mild cognitive impairment, anxiety, and attention-deficit hyperactivity disorder is also substantially connected with adopting high-processed or high-fat western diets and drinking sugar-sweetened beverages. In addition to increasing stress and exhaustion, this disregard for healthy eating practices has made nurses less inclined to encourage patients to lead healthier lifestyles because they see the hypocrisy in doing so (Ross, et al., 2019).

## Aim of study

This study aimed to show strategies for reducing risk of burnout among nurses and explore the barriers to healthy eating among nurses working in hospitals.

## Literature Review

Hospitals offer round-the-clock care services and are known for their rapid speed and multifaceted operations. Nurses play a crucial role in hospital operations, ensuring the provision of healthcare services, coordination of care, and productivity. Unhealthy eating among hospital nurses may result in a decline in their quality of work and overall health, given their crucial role in patient monitoring, bedside care, health promotion, and sickness prevention. There could be a number of negative effects, including decreased productivity, job incompetence, and impaired patient safety for nurses. Therefore, it is imperative that hospital nurses maintain good health, which includes consuming a nutritious diet, albeit many of them found it difficult. When comparing hospital nurses to their nursing

counterparts (such as nursing aids and students), other employees, or non-hospital nurses, the obstacles to healthy eating may be different. Their varied work obligations and stressors may have varying effects on their capacity to eat healthily (Oldland et al., 2020).

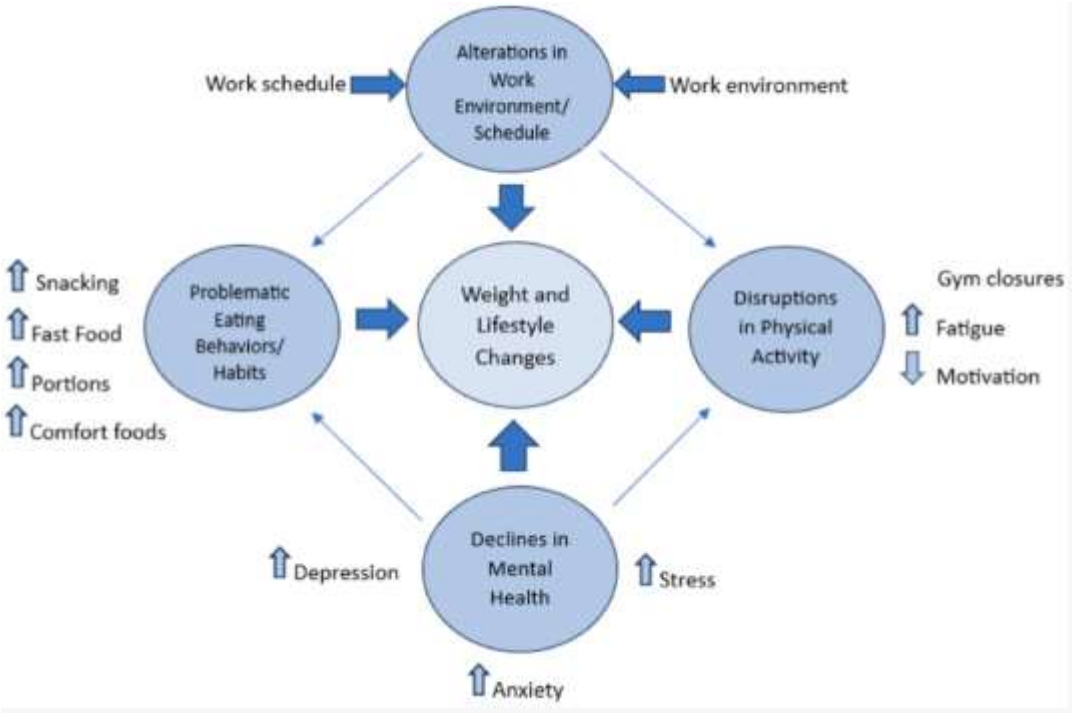


**Figure 1**. Key themes endorsed by healthcare workers on factors contributing to lifestyle changes (Shenkman et al., 2023).

**Strategies for Behavior Change**

The goal of nutrition education is to provide students the knowledge and experiences they need to establish healthy eating habits. Interventions for nutrition education differ in length, frequency, and kind of experience. With the use of technology, nutrition education can be given live, on-demand, through telemedicine, or in person. According to a comprehensive evaluation of the variables affecting the effectiveness of nutrition education, the biggest results are obtained from highly targeted interventions with three or fewer learning objectives that are at least five months in length. When policymakers are involved, like in the case of management's support for worksite wellness initiatives, nutrition education interventions have been shown to be more successful. Employers should think about funding creative worksite wellness initiatives that include nutrition education in order to minimize burnout among doctors and other healthcare professionals (Murimi et al., 2017).

**Ensure adequate nutrient intake**

Adequate fat content and a diet rich in vitamins, minerals, dietary fibre, and bioactive elements are characteristics of healthy diets. These factors can increase the intake of polyphenols, which are nutrients necessary for neurogenesis and neuroprotection, and improve symptoms related to mental health, including burnout. According to research done on a group of workers, eating meals like vegetables, fruits, berries, plant foods, low-fat dairy products, and white meat is actually linked to fewer symptoms of burnout. It makes biological sense that eating a diet high in foods high in antioxidants, such fruits and vegetables, would help one cope better with long-term stress or burnout from work. Therefore, in order to improve results, it is important to think about and control the inclusion of functional foods in the diet that appropriately regulate the response to burnout. When a person is experiencing burnout, their dietary intake should be directed toward the prevention and treatment of related psychiatric problems, especially burnout symptoms (Banda-Ccana et al., 2021).

**Nutrients support Mental Health**

Cellular functions connected to mental health are mediated by nutrients found in diets and dietary supplements. We'll look at the effects of carbs, amino acids, and omega-3 fatty acids on mental wellness. Numerous studies have examined the effects of omega-3 fatty acids on mental health and brain function. These fatty acids are present in foods like salmon, tuna, mackerel, nuts and seeds, and plant oils. These fatty acids contribute to the hypothalamic pituitary adrenal axis's ability to lower corticosterone levels, which are a sign of inflammation and stress, and interact with the central nervous system to maintain serotonin and dopamine neurotransmission. The preferred fuel source for the brain is glucose, which is produced by eating carbohydrates. Simple carbs are linked to inflammatory reactions and ultimately less metabolic consequences. They are commonly ingested in the form of refined grains, sweets, and sugar-sweetened beverages, which can increase brain serotonin synthesis and cause excessive intake in people with mood disorders (Wurtman & Wurtman, 2018).
There are numerous elements to the idea of nutrition. It is crucial to include each of these elements on a regular basis in order to reap the greatest benefits from healthy eating practices. Consistency, portion control, and diversity are a few fundamental nutritional concepts that can assist both nurses and patients in selecting healthier foods (Ley et al., 2014).

**Consistent Intake**

Maintaining a constant nutritional intake is one of the most important aspects of good nutrition. This implies that a person should eat regular meals and/or snacks on most days. When the body is fed often, it will make better use of the nutrients rather than storing them for potential use at a later time, which frequently results in increased fat reserves or obesity. This idea holds true for both day and night shift workers. Regular meals and snacks should be consumed while awake if a nurse works the night shift, just like they would if they worked the day shift (Ley et al., 2014).

**Portion Size and Caloric Intake**

Understanding portion sizes and the right amount to eat is essential for success. Inaccurate portion sizes and the notion that more calories are required for health than are actually required are two of the most frequent mistakes made while meal planning. There are several formulas for calculating calorie intake per person; the most take into account height, weight, age, and degree of physical activity. It is crucial to understand which factors—such as height, weight, and age—go into the calculation of calories and that the equation has been verified in order to provide a more precise estimation of energy requirements. The suggested daily calories derived from any equation should only be used as a guideline because there is no ideal formula for calculating calories. Meeting with a qualified dietitian is the best approach to have your calories calculated because they have the expertise to make sure that the recommended amount of calories is actually suitable for you (Vannice & Rasmussen, 2014).

**Variety and Preparation**

Meal planning, meal balancing, and portion control all depend on variety. Variety in the diet calls for including grains or starches, meat, dairy, vegetables, and fruits in each day's meal plan. This suggests unequivocally that consuming an excessive amount of any one food is not advised. Whole grains with more fibre, like brown rice, whole wheat bread, or whole grain pasta, are the best sources of grains or starches. Low-fat or fat-free dairy products, including skim milk or yogurt prepared from non-fat milk, are recommended. Meats ought to be lean and cooked using techniques other than frying, like pork tenderloin or boneless, skinless chicken breasts. Eating whole fruits is better than drinking fruit juice. Fruit and fruit juice are considered to be equal portions of fruit; nevertheless, an apple contains significantly more fibre, vitamins, and minerals than a little amount of apple juice. Additionally, the apple will give you a more satisfying feeling of fullness. Vegetables can be enjoyed both raw and cooked but watch out for consuming too many calories from cheese or butter sauces. Antioxidants found in fruits, vegetables, and seafood can help lower oxidative stress and inflammation (Sies et al., 2005). Eating a range of fruits and vegetables is a good idea since doing so allows you to consume a

variety of nutrients that are healthy for your health. Examples of these colours are orange, red, green, and purple. Rich sources of antioxidants in food include peanuts, sunflower seeds, melons, sweet potatoes, and spinach (Vannice & Rasmussen, 2014).

**Planning and Packing**

A meal plan can help the nurse eat healthily whether working a twelve-hour shift or visiting a doctor or public health office during the day. The easiest way to do this is to pack most of the food that will be consumed during the working day. By packing meals, nurses can ensure that there is a sufficient variety of food accessible, maintain control over the meal's ingredients, and steer clear of common food problems (Reed, 2014).

**Drinking Water**

It is imperative to carry water with you. Drinks like soda, cappuccinos, and sports drinks are loaded with calories that many take without thinking. Water is calorie-free and extremely beneficial to the body (Reed, 2014).

**Limit Caffeine**

Energy drinks are increasingly being served in workplaces, especially medical settings. Energy drinkers frequently make this decision in order to counteract weariness, reduce stress, or increase energy. Long hours, emotional strain, and bodily harm are among the risks to one's safety. Over the past ten years, there has been a significant surge in the consumption of energy drinks among professionals who are looking for ways to stay physically and psychologically fit. The majority of direct patient care is given by clinical nursing personnel, who also guarantee patient safety by evaluating patients for clinical deterioration, administering recommended treatments, keeping an eye out for mistakes or malfunctions in the process, and carrying out numerous other duties that guarantee high-quality care. It is common for nurses to perform lengthy shifts with little time for recovery in between, all while doing mentally and physically taxing jobs. The Food and Drug Administration (FDA) is responsible for regulating all food items in the United States, including beverages. To evade regulation, the majority of energy drink producers package and promote their goods as dietary supplements or nutritional products. Because of this, the producer is not constrained to a maximum amount of caffeine in a certain serving or volume, nor is it necessary for them to reveal the amounts of active components in their products (Higbee et al., 2020).

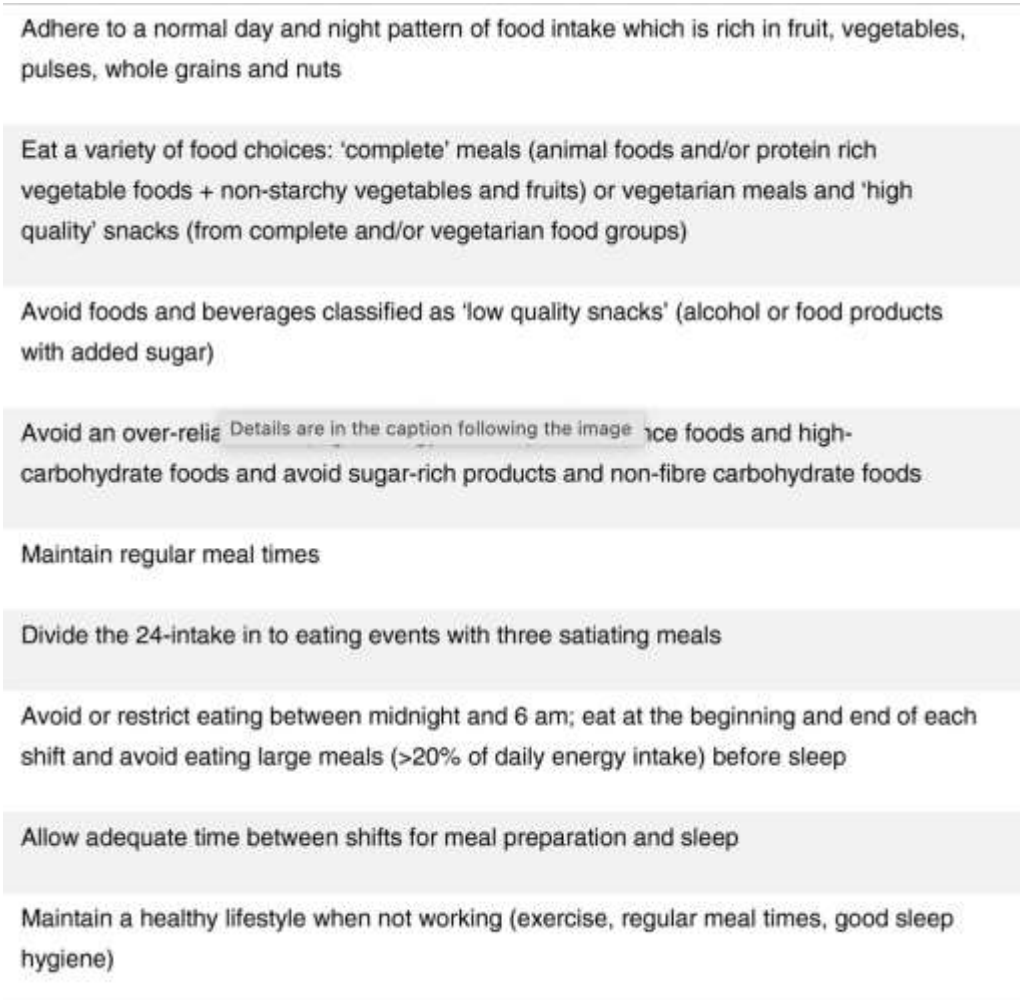


**Figure 2.** Guidelines for healthy eating for nurses (Nicholls et al., 2017).

**Systems-level change for nutrition to mitigate burnout**

The aforementioned strategies are efficacious in encouraging good eating habits on an individual basis, which may mitigate the likelihood of physician burnout. Given that individual behaviors and nutritional status are influenced by upstream factors, institutional and policy-level interventions are also necessary to assist attempts to enhance diet and nutrition. Organizational policies can support mindful eating and enhance adherence to a healthy diet, such as the Mediterranean diet. Foods that are sponsored meals, offered free of charge to doctors and other medical workers, and sold in hospital cafeterias might all be tailored to support the Mediterranean diet dietary pattern. To assist with these efforts, organizations might also adopt policies, such as nutritional recommendations for meals purchased with cash from the organization. Additionally, companies can create guidelines to encourage mindful eating, implement tactics like doing away with working lunches, and arrange patient appointments so that breaks are long enough for meals (Esquivel, 2021).

**Organizational barriers against good diet for nurses**

Restrictions from the facility and work schedules made it difficult for nurses to eat healthily. Due to rigid break schedules brought forth by nursing shortages, nurses often eat whenever they have free time, regardless of how hungry they are. For the nurses, inadequate staffing also meant a greater workload. They were consequently kept busy at work and were refused appropriate breaks. They survived on convenient food, which was primarily unhealthy, while working to make up for missing breaks. Some people's inability to eat or drink during work made it harder for them to get enough nutrients in their diet. The options offered in the hospital limited the possibilities available to nurses who bought food there. In contrast to the abundance of harmful food options in the cafeteria, they

bemoaned the lack of reasonably priced, healthful food options, particularly while working night shifts (Uchendu et al., 2020).

## Conclusion

There is a lack of knowledge regarding the specific dietary factors that hospital workers encounter, despite the fact that they face particular challenges in their employment. It is critical to comprehend these factors in order to create programs that promote healthy eating at work.

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