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Occupational Stress and Its Impact on Nutritional Status among Nurses in the Hazara Division

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Abstract
Background: *Occupational stress among nurses can lead to unhealthy eating behaviors and poor dietary quality, potentially impacting their overall nutritional status. This issue is particularly concerning in hospital settings where high workloads, lack of resources, and exposure to traumatic events are common.*
Objectives: *This study aims to examine the relationship between occupational stress and nutritional status among nurses in the Hazara Division, assessing how stress levels may affect dietary habits and nutrient intake.*
Methods: *A cross-sectional study design was employed, collecting data from 300 nurses using structured questionnaires. Occupational stress levels were measured with the Maslach Burnout Inventory (MBI), while nutritional status was assessed using the 24-Hour Dietary Recall Method. Descriptive statistics and ANOVA were applied to determine the association between stress levels and nutrient intake.*
Results: *Out of the 300 nurses who completed the survey, 30% reported high stress, 29.3% moderate stress, and 40.7% low stress. Those with high-stress levels had significantly lower nutrient intake and poorer dietary quality compared to those with moderate or low stress. A positive correlation was found between high stresses and reduced dietary quality, with specific deficiencies observed in essential vitamins and minerals.*
Conclusion: *High levels of occupational stress among nurses are strongly linked to inadequate nutritional status and unhealthy eating behaviors. These findings underscore the need for targeted nutritional interventions and stress management programs to improve dietary habits and overall well-being among highly stressed nurses.*
Keywords: Occupational Stress, Nutritional Status, Dietary Quality, Nurses, Hazara Division

Introduction
Occupational stress is a multidimensional and pervasive issue that impacts professionals across various fields, with healthcare workers particularly nurses experiencing uniquely high levels of stress due to the nature of their responsibilities and work environment. Nurses are consistently exposed to high-stakes, high-stress situations that include rigorous workloads, emotional interactions with patients and families, limited resources, and routine exposure to trauma and suffering (1). This persistent exposure not only takes a toll on nurses' mental well-being but can also have adverse effects on physical health, influencing factors such as dietary habits and nutritional intake. Burnout, a stress-related condition, encompasses symptoms such as emotional exhaustion, depersonalization, and a reduced sense of accomplishment, all of which can be aggravated by demanding work conditions and contributes to both poor dietary practices and an increased vulnerability to stress-related health complications (2, 3).

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Nutrition plays a critical role in maintaining physical and mental health (4), which in turn supports resilience against stress; however, nurses often face significant challenges in maintaining balanced dietary intake due to job demands, irregular shifts, and the psychological toll of their work environment. High levels of occupational stress disrupt normal eating patterns and have been linked to a tendency for unhealthy food choices, irregular meal times, and a lack of essential nutrients, which can impact cognitive functioning, energy levels, and stress management capabilities(5, 6). Studies indicate that chronic stress and burnout among healthcare workers are associated with poor dietary quality and inadequate intake of essential nutrients, contributing to a cycle of poor health and diminished job performance (7, 8).

This study, conducted among nurses in the Hazara Division of Khyber Pakhtunkhwa, Pakistan, aims to assess the specific relationship between occupational stress and nutritional status, addressing a gap in the literature concerning the dietary patterns of Pakistani nurses in high-stress settings. Given the unique cultural and environmental stressors faced by nurses in this region, this research is intended to explore how occupational stress impacts dietary intake (9), nutrient consumption, and overall dietary quality, which in turn may influence health outcomes and work effectiveness. Through structured questionnaires and dietary assessments, the study investigates the connection between high-stress work environments and the nutritional well-being of nurses, with the goal of informing targeted interventions to support healthier dietary habits, improve job satisfaction, and mitigate stress-related health risks.

Objectives

- To examine the levels of occupational stress among nurses in the Hazara Division, exploring its prevalence and variations across different demographic characteristics.
- To assess the relationship between stress levels and dietary habits, including nutrient intake and overall dietary quality, and to identify specific nutrients most affected by occupational stress.
- To propose nutrition-focused interventions and stress management strategies that may improve dietary habits and reduce the adverse health effects of occupational stress among nurses, enhancing both their well-being and job performance.

METHODOLOGY

This cross-sectional study was designed to examine the relationship between occupational stress and nutritional status among nurses in public and private hospitals across Haripur, Abbottabad, and Mansehra in the Hazara Division. Initially, 395 nurses were recruited through random sampling; however, after excluding 95 nurses who either did not meet the inclusion criteria or provided incomplete responses, the final sample size analyzed consisted of 300 nurses. To be included in the study, participants were required to have a minimum of five years of continuous experience as nurses in either public or private hospitals. Nurses were excluded if they had metabolic disorders, chronic illnesses, disabilities, or were on any form of medication, as these conditions could influence dietary habits and stress responses.

Data collection involved the use of various standardized tools. Occupational stress levels were assessed using the Maslach Burnout Inventory (MBI), which measured three dimensions: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Higher scores in Emotional Exhaustion and Depersonalization reflected higher stress levels, while higher scores in Personal Accomplishment indicated lower burnout. Nutritional status was evaluated using the 24-Hour Dietary Recall Method, where participants recorded all foods and beverages consumed over the previous 24 hours, and nutrient intake was subsequently compared with the Pakistan Dietary

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Guidelines to assess adequacy. Additionally, anthropometric measurements were taken, including body weight, which was recorded to the nearest 0.01 kg, and height to the nearest 0.1 cm, allowing for Body Mass Index (BMI) calculation. BMI classifications followed the World Health Organization (WHO) standards. Hemoglobin levels were also measured using a digital hemoglobinometer, with levels categorized as anemic (<12 g/dL) or normal (12-14 g/dL).
Data analysis was conducted using SPSS version 20. Descriptive statistics summarized the frequencies and means of key variables, and Analysis of Variance (ANOVA) was employed to compare mean differences in nutrient intake across stress levels (high, moderate, and low). Statistical significance was set at $p \leq 0.05$.

RESULTS

Table 1; **Demographic Characteristics of Nurses in the Hazara Division**

Variable	**Mean ± SD**
Age (years)	45 ± 8.1 (31-66)
Monthly Income (PKR)	52.1 ± 11.8 (30k-76k)
Family Size	6.2 ± 2.5 (2-19)

Table 1, Demographic Characteristics of Nurses in the Hazara Division, presents the mean age, monthly income, and family size of the nurse participants. The mean age of nurses was 45 years, with a standard deviation (SD) of 8.1 years, ranging from 31 to 66 years. The average monthly income was 52,100 PKR (SD = 11,800), with incomes ranging between 30,000 and 76,000 PKR. Family size had a mean value of 6.2 (SD = 2.5), with sizes varying from 2 to 19 members.

Table 2; Socioeconomic Indicators of Nurses in the Hazara Division

Variable	**Categories**	**N (%)**
Participants	Haripur	120 (40)
	Abbottabad	100 (33.3)
	Manshera	80 (26.7)
Marital Status	Single	53 (17.7)
	Married	247 (82.3)
Family Type	Joint	186 (62)
	Nuclear	114 (38)
Other Income Source	Yes	206 (68.7)

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Variable	Categories	N (%)
	No	94 (31.3)
Current Accommodation Status	Rented House	100 (33.4)
	Ownership	187 (62.3)
	Hostels	13 (4.3)
Current Income Sufficiency Status	Sufficient for all expenditures	132 (44)
	Partially sufficient for expenditures	125 (41.7)
	Insufficient for expenditures	43 (14.3)

Table 2, Socioeconomic Indicators of Nurses in the Hazara Division, categorizes data on participants' location, marital status, family type, additional income sources, housing status, and income sufficiency. Haripur had the highest representation with 120 nurses (40%), followed by Abbottabad with 100 (33.3%) and Mansehra with 80 (26.7%). Most nurses were married (82.3%), and 62% belonged to joint families. A significant number (68.7%) reported additional income sources, and 62.3% owned their homes, while others rented (33.4%) or lived in hostels (4.3%). Regarding income sufficiency, 44% reported that their income fully covered expenses, while 41.7% stated it was partially sufficient, and 14.3% found it insufficient. These figures indicate the diverse living conditions and financial responsibilities nurses face, including housing challenges and reliance on additional income.

Table 3; Level of Professional Burnout among Nurses

MBI-HSS Dimension	N (%)	Mean ± SD
Emotional Exhaustion (EE)		
Low level (< 17)	128 (42.7)	14.3 ± 2.3
Moderate level (18-29)	90 (30.0)	23.2 ± 3.4
High level (> 30)	82 (27.3)	33.0 ± 2.1
Depersonalization (DP)		
Low level (< 5)	121 (40.3)	3.4 ± 0.7
Moderate level (6-11)	88 (29.3)	9.3 ± 1.7
High level (> 12)	91 (30.3)	13.0 ± 1.0
Personal Accomplishment (PA)		

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MBI-HSS Dimension	**N (%)**	**Mean ± SD**
High level (> 30)	110 (36.7)	25.7 ± 6.3
Moderate level (34-39)	89 (29.7)	36.4 ± 1.6
Low level (> 40)	101 (33.7)	41.3 ± 1.1
Overall Burnout		
Low level	121 (40.7)	58.3 ± 3.1
Moderate level	89 (29.3)	65.7 ± 6.8
High level	90 (30.0)	71.1 ± 7.3

Note: EE = Emotional Exhaustion; DP = Depersonalization; PA = Personal Accomplishment; SD = Standard Deviation; % = Percentage

Table 3, Level of Professional Burnout among Nurses, assesses burnout using the Maslach Burnout Inventory-Human Services Survey (MBI-HSS) across Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA) dimensions. In EE, 42.7% of nurses had a low level of exhaustion, while 30% showed moderate and 27.3% high levels, with means of 14.3 (SD = 2.3), 23.2 (SD = 3.4), and 33.0 (SD = 2.1), respectively. DP scores showed 40.3% at low, 29.3% at moderate, and 30.3% at high levels, with means of 3.4 (SD = 0.7), 9.3 (SD = 1.7), and 13.0 (SD = 1.0), respectively. For PA, 36.7% reported high accomplishment, 29.7% moderate, and 33.7% low, with mean scores of 25.7 (SD = 6.3), 36.4 (SD = 1.6), and 41.3 (SD = 1.1), respectively. Overall burnout levels were categorized into low (40.7%), moderate (29.3%), and high (30%) with corresponding means of 58.3 (SD = 3.1), 65.7 (SD = 6.8), and 71.1 (SD = 7.3). The data reveals considerable variation in burnout levels, with a notable proportion experiencing moderate to high levels of emotional exhaustion and depersonalization, and some achieving low personal accomplishment, highlighting burnout as a critical issue among nurses.

Table 4: Anthropometric indicators and biochemical status of participants

Indicators		**Mean ± SD/N (%)**	**Ranges**
BMI		24 ± 3.8	16.6 - 36.2
Fasting blood glucose level (mg/dl)		101.8 ± 24.2	65 – 180
Hemoglobin (g/dl)		11.8±1.0	10-14
Blood pressure (mmHg)	Systolic	109.6±13.2	80-140
	Diastolic	72.6±6.1	65-90

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Table 4, Anthropometric Indicators and Biochemical Status of Participants, reports average Body Mass Index (BMI), fasting blood glucose levels, hemoglobin, and blood pressure. The mean BMI was 24 (SD = 3.8), with a range of 16.6 to 36.2, indicating a generally healthy weight range among participants. Fasting blood glucose averaged 101.8 mg/dl (SD = 24.2), within a range of 65 to 180 mg/dl, suggesting most participants were within normal limits. Hemoglobin levels averaged 11.8 g/dl (SD = 1.0), within the range of 10 to 14 g/dl, while systolic and diastolic blood pressures averaged 109.6 mmHg (SD = 13.2) and 72.6 mmHg (SD = 6.1), respectively, generally within normal ranges, reflecting stable physiological indicators among participants.

Table 5: MBI Description and Reliability Status

Sub Scale	Items	Cronbach's α	Mean ± SD
Depersonalization score	5	0.85	8±4.2
Personal Accomplishment score	8	0.87	34±7.8
Emotional Exhaustion Score	9	0.90	21±8.1

Cutoff value for Cronbach's Alpha is 0.70, while SD stands for standard deviation,

Table 5, MBI Description and Reliability Status, details the subscales of the MBI, including the Depersonalization (DP), Personal Accomplishment (PA), and Emotional Exhaustion (EE) scores, with items and Cronbach's alpha values. DP had a Cronbach's alpha of 0.85, PA 0.87, and EE 0.90, all exceeding the 0.70 threshold for reliability, indicating robust internal consistency in these subscales. Mean values for DP, PA, and EE were 8 (SD = 4.2), 34 (SD = 7.8), and 21 (SD = 8.1), respectively. This reliability confirms the suitability of the MBI as a tool for measuring burnout among this sample.

Table 6; Association of Anthropometric and Biochemical Status with Burnout

Indicators	Level of Burnout: Mean ± SD	P Value
	Low (n = 121)	Moderate (n = 89)
BMI	20.9 ± 1.4	24.3 ± 1.0
Hemoglobin (g/dl)	12.1 ± 1.0	11.9 ± 0.9
Fasting Glucose Level (mg/dl)	91.7 ± 18.2	100.8 ± 12.3
Blood Pressure (Systolic) mmHg	104.7 ± 13.0	112.6 ± 5.9
Diastolic (mmHg)	72.2 ± 4.1	70.7 ± 6.6

Table 6, Association of Anthropometric and Biochemical Status with Burnout, shows the relationship between burnout levels and BMI, hemoglobin, fasting glucose, and blood pressure. Nurses with low burnout levels had a mean BMI of 20.9 (SD = 1.4), whereas those with moderate

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burnout averaged 24.3 (SD = 1.0). Hemoglobin levels were similar between groups (low burnout: 12.1 g/dl, moderate burnout: 11.9 g/dl). Fasting glucose levels showed a difference (low burnout: 91.7 mg/dl, moderate burnout: 100.8 mg/dl). Systolic blood pressure was higher in the moderate burnout group (112.6 mmHg) than the low burnout group (104.7 mmHg), while diastolic pressure was comparable (low: 72.2 mmHg, moderate: 70.7 mmHg). These findings suggest that higher burnout is associated with increased BMI, fasting glucose, and systolic blood pressure, potentially indicating the physiological impact of stress.

Table 7; Adequacy in Nutrient Intake

Nutrient	RDA	Mean ± SD	Range	% Adequacy
Energy (kcal)	2160	2050.4 ± 595.8	759-4573	94
Carbohydrates (g/d)	275	212.8 ± 89.4	104-639	77
Fat (g/d)	60	70.0 ± 32.1	22-206	116
Protein (g/d)	46	56.3 ± 18.4	22-104	112
Vitamin A (µg/d)	700	501.4 ± 167.1	0-868	72
Vitamin D (µg)	2.5	1.31 ± 1.1	0-9	52
Vitamin E (mg/d)	15	10.1 ± 5.1	4-35	67
Vitamin C (mg/d)	75	55.3 ± 26.8	26-119	73.7
Thiamine (mg/d)	1.1	1.0 ± 0.4	0-3	91
Riboflavin (mg/d)	1.1	1.0 ± 0.6	0-2	90
Pyridoxine (mg)	1.3	1.2 ± 0.5	0-3	92
Cobalamin (µg)	2.4	1.5 ± 1.3	0-5	62.5
Pantothenic (µg)	5	3.5 ± 1.7	0-8	70
Folic acid (µg)	400	312 ± 43	273-494	78
Niacin (mg/d)	14	14.5 ± 3.6	7-25	103
Biotin (µg)	30	20.8 ± 9.9	8-43	69
Iodine (mcg/d)	150	132.7 ± 48.4	21-180	88
Iron (mg/d)	18	14 ± 2.5	7-19	77.8
Phosphorus (mg/d)	700	588.1 ± 116.3	294-818	84

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Nutrient	RDA	Mean ± SD	Range	% Adequacy
Copper (mcg/d)	900	817.5 ± 181.9	333-1000	90
Manganese (mg/d)	1.8	1.71 ± 0.2	1-2	95
Selenium (mcg/d)	55	43 ± 14.2	15-61	78
Magnesium (mg/d)	320	271.7 ± 36.6	159-322	85
Calcium (mg/d)	1000	883.6 ± 229.1	380-1410	88.3
Zinc (mg/d)	20	11.6 ± 2.6	5-22	58
Sodium (mg)	1500	1508.2 ± 588.2	1200-2096	100.5

Note: SD = standard deviation; % = percentage; kcal = kilocalories; g/d = grams per day; µ/d = micrograms per day; mg/d = milligrams per day; RDA = Recommended Daily Allowances.

Table 7, Adequacy in Nutrient Intake, describes the nutrient intake adequacy relative to recommended dietary allowances (RDA). Mean daily energy intake was 2050.4 kcal (94% adequacy), with carbohydrates at 77%, fat at 116%, and protein at 112% adequacy. Vitamins and minerals varied in adequacy, with vitamin A (72%), vitamin D (52%), vitamin E (67%), vitamin C (73.7%), and other vitamins showing moderate intake levels, while some nutrients like vitamin D and zinc were lower. High-fat and protein adequacy with varying vitamin deficiencies indicate imbalanced dietary patterns among participants.

Table 8; **Association of Burnout with Nutrients**

Nutrients	Level of Burnout: Mean ± SD	P-Value
	Low (n = 121)	Moderate (n = 89)
Energy (kcal)	1706.9 ± 396.1	1907.4 ± 267.1
Carbs (g/day)	198.5 ± 125.2	121.3 ± 44.2
Fat (g/day)	79.0 ± 43.7	63.3 ± 11.4
Protein (g/day)	59.0 ± 19.6	59.7 ± 16.1
Vit A (µ/day)	528.3 ± 178.1	510.3 ± 159.8
Vit D (µg)	1.8 ± 0.9	1.6 ± 1.3
Vit E (mg/d)	12.0 ± 5.8	10.9 ± 5.9
Thiamine (mg/d)	1.1 ± 0.5	1.0 ± 0.5
Cobalamin (µg)	1.28 ± 1.3	1.26 ± 1.2

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Nutrients	Level of Burnout: Mean ± SD	P-Value
Pantothenic (mg)	4.78 ± 1.5	4.04 ± 1.6
Folic acid (µg)	319.46 ± 52.9	315.9 ± 27.3
Biotin (µg)	18.96 ± 10.4	18.59 ± 8.8
Pyridoxine (mg)	1.11 ± 0.4	1.48 ± 0.6
Riboflavin (mg/d)	1.0 ± 0.7	0.8 ± 0.5
Niacin (mg/d)	14.6 ± 3.5	16.3 ± 3.9
Vitamin C (mg/d)	66.12 ± 29.5	49.59 ± 21.0
Phosphorus (mg/d)	611.0 ± 117.4	573.4 ± 119.8
Zinc (mg/day)	12.7 ± 2.9	12.2 ± 2.6
Iodine (µg/day)	141.1 ± 41.78	128.6 ± 51.2
Iron (mg/day)	14.0 ± 3.13	14.0 ± 2.3
Copper (µg/d)	837.7 ± 182.37	831.8 ± 181.4
Manganese (mg/d)	1.8 ± 0.244	1.6 ± 0.308
Selenium (µg/d)	49.8 ± 13.9	40.6 ± 12.46
Magnesium (mg/d)	263.5 ± 38.7	276.5 ± 38.9
Calcium (mg/d)	914.1 ± 252.8	918.3 ± 212.4

Note: SD = standard deviation, % = percentage, kcal = kilocalories, g/day = grams per day, µ/day = micrograms per day, mg/day = milligrams per day. Asterisks indicate statistical significance: *p < .05, **p < .01.

Table 8, Association of Burnout with Nutrients, examines nutrient intake across burnout levels. Energy intake was higher in the moderate burnout group (1907.4 kcal) compared to the low burnout group (1706.9 kcal), indicating possible overconsumption linked to moderate burnout. Carbohydrates were lower in the moderate burnout group (121.3 g/day) than in the low burnout group (198.5 g/day), while fats and proteins were similar between groups. Moderate burnout groups had slightly lower intakes of vitamins A and D but similar levels of other nutrients. The results imply a complex relationship between nutrient intake and burnout levels, where moderate burnout may correlate with altered dietary intake patterns, such as reduced carbohydrates and possibly higher calorie intake.

DISCUSSION

The current study sought to examine the relationship between occupational stress and nutritional status among nurses in the Hazara Division, addressing how occupational stress impacts dietary habits, nutrient intake, and health outcomes. The findings revealed significant relationships

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between stress levels and nutritional intake, as well as physiological and biochemical indicators. These results align with previous research that has highlighted similar associations between occupational stress, burnout, and dietary quality among healthcare professionals. For instance, studies have shown that high stress among nurses often correlates with poor dietary habits and nutrient deficiencies, which can adversely affect their health and job performance (10, 11)

In examining burnout levels, the present study found that most nurses experienced moderate to high levels of emotional exhaustion and depersonalization, mirroring findings by (12) who observed high rates of burnout among nurses, especially those in high-stress healthcare environments. Emotional exhaustion has been shown to contribute to physiological stress responses that exacerbate nutritional deficits, aligning with the current study's findings of lower intake of essential nutrients among nurses with higher burnout levels (13). Research indicates that emotional exhaustion, compounded by demanding work environments, can lead to decreased motivation for maintaining healthy dietary practices, a pattern consistent with the nutrient deficiencies observed among participants in the high-burnout category of this study(14).

The study's findings on inadequate energy and nutrient intake among high-stress nurses are consistent with previous research demonstrating that occupational stress may influence eating behaviors, often leading to unhealthy dietary choices. For example, Nishitani and Sakakibara (2007) found that job-related stress among Japanese nurses was linked to a reduced intake of fruits, vegetables, and other nutrient-rich foods, similar to the low intake of vitamins such as Vitamin D and Vitamin C reported in the current study. Similarly, Research study conducted by Waddill-Goad and colleuges (7) noted that nurses experiencing significant burnout tend to consume fewer essential nutrients, potentially exacerbating health risks associated with both poor diet and chronic stress.

The relationship between occupational stress and adverse physiological markers in this study such as increased BMI, blood glucose, and blood pressure further supports evidence in the field. A study by (15) found that job stress can disrupt metabolic health, increasing the risk of obesity, hypertension, and diabetes. This aligns with the current findings, where nurses with high burnout exhibited elevated metabolic markers, supporting the theory that stress-induced lifestyle changes can manifest in physical health consequences (16) . Furthermore, the current study's link between elevated BMI and stress is consistent with findings by Chao AM, Jastreboff AM, White MA, Grilo CM, Sinha RJO (17) who suggested that stress influences weight gain through changes in eating behaviors and the hormonal effects of cortisol, which is often elevated in response to chronic stress.

Socioeconomic factors such as income and family size were also shown to affect the relationship between stress and nutritional status in this study, resonating with the finding by Masters WA, Finaret AB, Block SAJHoae (18) , who observed that financial stress among healthcare workers often leads to compromised dietary intake, potentially aggravating burnout and stress levels. Economic hardships can limit access to nutrient-rich foods, making it difficult for nurses to meet daily dietary requirements a trend observed in both and the current study (19). Nurses who reported financial constraints also tended to experience higher stress levels, which could explain their lower nutrient intake, consistent with research suggesting that low socioeconomic status exacerbates

CONCLUSION

The results align with a significant body of research demonstrating the complex relationships among occupational stress, burnout, nutritional intake, and health outcomes in nurses. Addressing these findings within the context of previous research reinforces the need for workplace interventions that reduce stress and promote healthy eating habits. Such initiatives could mitigate

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the health risks associated with occupational stress, contributing to better dietary practices and overall well-being among nurses. Further research is warranted to explore the potential benefits of tailored nutrition programs and stress management resources to support the health of healthcare professionals facing high-stress work environments.

REFERENCE

1. Alruwaili MM, Abuadas FH, Maude P, Ross A, editors. Experiences, perceptions, and coping patterns of Emergency Department Nurses with Occupational Stressors in Saudi Arabian Hospitals: mixed-method study. Healthcare; 2022: MDPI.
2. Jennings BMJPs, nurses qAe-bhf. Work stress and burnout among nurses: Role of the work environment and working conditions. 2008.
3. Brand T. An exploration of the relationship between burnout, occupational stress and emotional intelligence in the nursing industry: Stellenbosch: University of Stellenbosch; 2007.
4. Kesari A, Noel JY. Nutritional assessment. 2022.
5. Cheong ZY, Lopez V, Tam WSWJJoan. Barriers to healthy eating among nurses working in hospitals: A meta-synthesis. 2022;78(2):314-31.
6. Khalfan SS, Muki SK, Minani J, Khamis KA, Said FA, Suleiman B, et al. Review of Work-Related Stress and the Incidence of Hypertension among Nurses. 2023;6(1):343-51.
7. Waddill-Goad S. Beyond Burnout: Overcoming Stress in Nursing & Healthcare for Optimal Health & Well-being: Sigma Theta Tau; 2023.
8. Bakirhan H, Bakirhan YE, Yaşar GJN, Science F. Shift work, sleep, and burnout: the impact of Mediterranean dietary pattern and nutritional status on emergency healthcare workers. 2023;53(2):402-15.
9. Cox T, Griffiths A, Cox S. Work-related stress in nursing: Controlling the risk to health: International Labour Office Geneva; 1996.
10. Choi SH, Lee HJPiPC. Associations of mindful eating with dietary intake pattern, occupational stress, and mental well-being among clinical nurses. 2020;56(2).
11. Zaghini F, Biagioli V, Proietti M, Badolamenti S, Fiorini J, Sili AJAnr. The role of occupational stress in the association between emotional labor and burnout in nurses: A cross-sectional study. 2020;54:151277.
12. Gago-Valiente F-J, Mendoza-Sierra M-I, Moreno-Sánchez E, Arbinaga F, Segura-Camacho AJIJoER, Health P. Emotional exhaustion, depersonalization, and mental health in nurses from Huelva: A cross-cutting study during the SARS-CoV-2 pandemic. 2021;18(15):7860.
13. Chico-Barba G, Jiménez-Limas K, Sánchez-Jiménez B, Sámano R, Rodríguez-Ventura AL, Castillo-Pérez R, et al. Burnout and metabolic syndrome in female nurses: an observational study. 2019;16(11):1993.
14. Zies CR. Emotional Eating in the Work Place: The Eating Patterns of Mental Health Workers. 2017.
15. Kivimäki M, Bartolomucci A, Kawachi IJNRE. The multiple roles of life stress in metabolic disorders. 2023;19(1):10-27.
16. Jiang H, Men RLJCr. Creating an engaged workforce: The impact of authentic leadership, transparent organizational communication, and work-life enrichment. 2017;44(2):225-43.
17. Chao AM, Jastreboff AM, White MA, Grilo CM, Sinha RJO. Stress, cortisol, and other appetite-related hormones: Prospective prediction of 6-month changes in food cravings and weight. 2017;25(4):713-20.
18. Santiago CD, Wadsworth ME, Stump JJJoEP. Socioeconomic status, neighborhood disadvantage, and poverty-related stress: Prospective effects on psychological syndromes among diverse low-income families. 2011;32(2):218-30.
19. Masters WA, Finaret AB, Block SAJHoae. The economics of malnutrition: Dietary transition and food system transformation. 2022;6:4997-5083.