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Original Research Article

COMPARATIVE EVALUATION OF NUTRITIONAL STATUS AND LIFESTYLE OF DOCTORS AND NURSES WORKING IN A LOCAL PUBLIC HOSPITAL

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Abstract: *This study aimed to compare doctors' and nurses' nutritional status and lifestyle working in a local hospital. The prospective study was conducted in DHQ Hospital Muzaffargarh. The study was conducted on 60 participants (30 doctors, 30 nurses).To conduct this study, a questionnaire was prepared and distributed. There were questions on weight, height, waist circumference, hip circumference, and BMI in addition to the standard demographic information (age, gender, parental status, income, and education). Questions on eating habits, supplement usage, digestive health, exercise, stress, and other aspects of lifestyle and diet, as well as their current nutritional status, were included in the survey. 2.0 doctors were underweight because their BMI was less than 18.5. Sixteen doctors and 22 nurses were healthy because their BMI was 18.5 - 14.97.8; doctors and 5 nurses were overweight because their BMI was 25.5 - 29.59. Four doctors and 3 nurses were obese because their BMI was 30.77 - 38.41. All variables showed no statistically significant variation in both groups except for waist circumference (p-value=0.053) and height (p-value=0.05). The pattern of exercise between both groups was not significantly different. There is no difference in the nutritional status and lifestyle of doctors and nurses.*

Keywords: Medical Professionals, Nutrition, Physical Health, Lifestyle

Introduction

Lifetime, morbidity, and quality of life are all affected by poor nutrition as it's associated with several chronic illnesses. Regular food consumption greatly affects People's nutritional status (Koliaki and Katsilambros, 2022). Many developing countries have experienced nutritional changeovers characterized by decreased nutritional deficiency cases and a rise in overweight and obesity rates. There has been a 7% decline in malnutrition over the last 40 years (Ishiguro and Campbell, 2023). However, this is accompanied by the dynamic shift from traditional dinners rich in grains, fruits, and vegetables to contemporary diets high in fat, sugar, and salt. It has coincided with a fall in physical activity, which may be attributed mostly to growing urbanization (Gill et al., 2019).

Doctors and nurses are having difficulty meeting their responsibilities to clients and society in light of the rapid development of new technologies, the dynamics of the healthcare industry, and problems with healthcare delivery. Most doctors and nurses work full time, have few holidays, and do irregular hours. They state they are too exhausted from their long workdays to prepare nutritious meals. According to several studies, medical professionals face both professional and personal stresses while on the job, which may affect their ability to exercise regularly and eat healthily (Liu et al., 2020; Salopek-Žiha et al., 2020)

Treating patients in the modern day is challenging and riddled with obstacles that have never previously been seen (Hegde et al., 2016).In light of today's fast-paced work culture and rapidly worsening healthcare crises, prioritizing healthy food and regular exercise is more important than ever. A study reported that medical professionals are prone to stress, affecting their lifestyle (Malatskey et al., 2019). In countries like Pakistan, where the number of doctors is relatively small, and each doctor is responsible for many more patients daily than their counterparts in the West, becoming a doctor is extremely demanding. This study compares the nutritional status and lifestyle of doctors and nurses working in a local hospital.

Methodology

The prospective study was conducted in DHQ Hospital Muzaffargarh. Female doctors and nurses aged 25 to 60 years were included in the study. Those with a history of hypertension and diabetes were excluded. The study was conducted on a total of 60 participants (30 doctors, 30 nurses) who fulfilled the inclusion criteria that were included in the study. Informed consent of the participants was informed. The ethical board of the hospital approved the study.

To conduct this study, a questionnaire was prepared and distributed. There were questions on weight, height, waist circumference, hip circumference, and BMI in addition to the standard demographic information (age, gender, parental status, income, and education). Questions on eating habits, supplement usage, digestive health, exercise, stress, and other aspects of lifestyle and diet, as well as their current nutritional status, were included in the survey.

SPSS version 23.0 was used for data analysis. Mean and standard deviation were determined using descriptive statistics for numerical data, whereas frequency proportions were determined for categorical variables. Medians were compared across groups using the Mann-Whitney U test, while percentages were compared using the Chi-square test.

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We used multivariable linear regression analysis to explore the antecedents and consequences of each of the six components of the positive health profile (dependent variables). The cutoff for statistical significance was set at 0.05.

Results

The mean age of the participants was 37.63±16.48 years. 56.3% of doctors and 43.8% of nurses were between 20 and 30, 48.3% of doctors and 51.7% of nurses were between 31 and 50 years, while 46.7% of doctors and 53.3% of nurses were more than 50. 8 doctors and 8 nurses were single, 16 doctors and 15 nurses were married while 6 doctors and 7 doctors were either widows or divorced. Twelve doctors and 12 nurses were postgraduates, 7 doctors and 10 nurses were specialists, and 11 doctors and 8 nurses were graduates. 13 doctors and 13 nurses had no dependent family members, 12 doctors, and 11 nurses had less than 3 dependent family members, while 5 doctors and 6 nurses had more than 3 dependent family members. Ten doctors and 11.0 nurses had less than 60,000 rupees monthly income, 10 doctors and 12 nurses had 61000 to 100,000 rupees monthly income, and 10 doctors and 7 nurses had more than 1 lakh monthly income (Table 1). Fifteen doctors and 18 nurses responded that they use junk foods, while 15 doctors and 12 nurses said that they don't eat junk foods. 70% of doctors ate three meals daily, and 30% of nurses ate three meals, while 63.6% of nurses and 36.3% of doctors had four meals daily. Seventeen doctors and 17 nurses did regular exercise, 9 doctors and 7 nurses did moderate exercise, while 4 doctors and 6 nurses did sedentary exercise.4.7 that 18 doctors and 19 nurses had depression while 12 doctors and 11 nurses did not feel depression during the past month. Ten doctors and 11 nurses suffered from hypertension, 10 doctors and 10 nurses had diabetes, and 10 doctors and 9.0 nurses suffered from obesity. Two doctors were underweight because their BMI was less than 18.5. Sixteen doctors and 22 nurses were healthy because their BMI was 18.5 - 14.97.8; doctors and 5 nurses were overweight because their BMI was 25.5 - 29.59. Four doctors and 3 nurses were obese because their BMI was 30.77 - 38.41. In doctors, weight, waist, height, hip, and systolic blood pressure were 54.27±8.07 kg, 37.55±3.34 inches, 149.57±9.41 cm, 39.0±3.62 inches, and 133.0±16.79 mmHg respectively. In nurses, weight, waist, height, and hip measurements were 55.43±8.77 kg, 37.50±2.70 inches, 153.5±73.10 cm, 38.80±3.59 inches, and 132.33±15.30 mmHg respectively. Except for waist circumference (p-value=0.053) and height (p-value=0.05), all variables showed no statistically significant variation in both groups (Table II). The pattern of exercise between both groups was not significantly different.

Table I: Demographic characteristics of the study Groups:

Demographic Characteristic	Doctors (%)	Nurses (%)
Age Range		
20 - 30	56.3	43.8
31 - 50	48.3	51.7
> 50	46.7	53.3
Marital Status		
Single	33.3	33.3
Married	66.7	65.0
Widowed/Divorced	10.0	15.0
Education		
Postgraduate	40.0	40.0
Specialist	23.3	33.3
Graduate	36.7	26.7
Dependent Family Members		
None	26.7	26.7
< 3	24.0	22.9
> 3	10.0	15.0
Monthly Income (Rupees)		
< 60,000	23.3	21.7
61,000 - 100,000	23.3	26.7
> 1 lakh	23.3	15.0

. **Table II Comparison of different nutritional indicators.**

Nutritional indicators	Groups	Mean± S. D	p-value
Weight in kg	Doctors Nurses	54.27±8.07 55.43±8.77	0.602
Waist circumference in inches	Doctors Nurses	37.55±3.34 37.50±2.70	0.053
Height in cm	Doctors Nurses	149.57±9.41 153.57±3.10	0.050
Hip measurement in inches	Doctors Nurses	39.0±3.62 38.80±3.59	0.940
Systolic blood pressure in mmHg	Doctors Nurses	133.0±16.79 132.33±15.30	0.596

Discussion

The current study evaluated the nutritional status and lifestyle of doctors and nurses. The subjects had a mean age of 1.98 years. All nutritional evaluation markers except waist circumference and height in both groups were the same. 63.3% of participants had healthy BMI. Similar findings were obtained in a previous study, which reported that 80% of working professionals had a healthy BMI (Light and Levine, 2019). The respondents' levels of physical activity and eating habits were also evaluated. One-quarter of physicians and the same number of nurses were reported to be in good health in this research. Half of all physicians and nurses were exercising regularly. These results ran counter to those reported by previous studies, which found that doctors are not reliably adhering to physical activity recommendations (Kushmatova and Khakimova, 2022; Mazurek Melnyk et al., 2016). Doctors and nurses alike had feelings of depression. A previous study also showed that both groups experience depression due to their stressful lifestyles and full schedules. Due to poor dietary intake, they are at risk for malnutrition (Hummel et al., 2021).

This study reported that more nurses consume junk food. The difference in the dietary pattern may be because many nurses do night duty and don't have time in their busy schedules; this is in line with the findings of a previous study (Serrano et al., 2021). Due to their hectic work schedules and patient care, doctors (43%) and nurses (30%) skipped meals and followed an irregular schedule. 70% of doctors ate three meals daily, and 30% of nurses ate three meals, while 63.6% of nurses and 36.3% of doctors had four meals daily. Most doctors and nurses were vegetarians, and consumption of meaty products, fish, and eggs was on the lower side. These findings were consistent with previous studies, which stated that doctors do not eat on time due to their hectic schedules (Ellison et al., 2020; Johns et al., 2022).

In the current study, 2.0 doctors and 5.0 nurses had a hip ratio less than 0.90, which indicated that this ratio was in the normal range, while 28.0 doctors and 25.0 nurses had a waist-to-hip ratio greater than 0.90, which indicated that there is a higher risk of health problems such as obesity, cardiovascular diseases. Most female nurses and doctors had a high waist-to-hip ratio, which increased their vulnerability to health problems. A study stated that a waist-to-hip ratio greater than 0.85 in females can cause health problems such as hypertension, diabetes, and obesity (Kettel, 2020). The limitation of this study is the small sample size; a larger study is recommended for further analysis.

Conclusion

There is no difference in the nutritional status and lifestyle of doctors and nurses. The medical profession is physically and mentally challenging, so more emphasis should be placed on eating healthy and staying active.

Declarations

Data Availability statement
All data generated or analyzed during the study are included in the manuscript.
Ethics approval and consent to participate
Approved by the concerned Department.
Consent for publication
Not applicable
Funding
Not applicable

Conflict of interest

The authors declared an absence of conflict of interest.

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