

Lifestyle Practices and Health Status among Staff Nurses

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ABSTRACT

This study determined the lifestyle practices and health status of staff nurses in a selected hospital in Rizal Province, Philippines, as a basis for a proposed workplace wellness program. Anchored on Pender's Health Promotion Model, it used a descriptive-correlational design with 120 staff nurses selected through stratified random sampling. Data were gathered using a researcher-made questionnaire patterned after the six domains of the health-Promoting Lifestyle Profile II, together with measured body mass index (BMI) and blood pressure, and were analyzed using frequency, percentage, weighted mean, t-test, one-way ANOVA, and Pearson's r at the 0.05 level of significance. Most respondents were 26–30 years old, female, single, had 3–5 years of experience, worked rotating shifts, and were assigned to the wards. Overall lifestyle practices were moderate ($M = 3.24$), highest in spiritual growth ($M = 4.04$) and interpersonal relations ($M = 3.95$), and lowest in physical activity ($M = 2.41$). Self-rated health was moderate ($M = 3.20$), yet 55.0% of the nurses were overweight or obese and 41.6% had elevated or hypertensive blood pressure. The most common conditions were hyperacidity/GERD (21.7%), back pain (18.3%), and anxiety or sleep problems (15.0%). Work shift was the only profile variable with a significant difference in lifestyle practices ($F = 5.42$, $p = 0.006$), with fixed day-shift nurses scoring higher than those on rotating and fixed night shifts. Overall lifestyle practices had a significant moderate positive relationship with health status ($r = 0.512$, $p < 0.001$), with stress management, physical activity, and nutrition showing the strongest associations; physical activity was also negatively correlated with BMI ($r = -0.287$, $p = 0.001$). The study concludes that staff nurses, particularly those on rotating and night shifts, face hidden cardiometabolic risks linked to inadequate lifestyle practices. A Nurses' Wellness Program featuring regular BMI and blood pressure screening, healthy food options on all shifts, shift-friendly fitness activities, stress management and counseling support, and peer support groups is proposed.

Keywords: *lifestyle practices, health status, staff nurses, shift work, health promotion, wellness program*

INTRODUCTION

Nurses are the largest group of health workers and the front line of patient care. Their own health shapes the quality and safety of the care they give. Yet nurses often work 8- to 12-hour shifts, rotate between day and night duty, skip meals, and carry heavy emotional loads, which make healthy living hard to sustain.

Lifestyle practices are the everyday behaviors a person chooses, such as eating habits, physical activity, sleep and rest, stress management, health responsibility, spiritual growth, and relationships with others. These practices strongly influence health status, the person's overall physical, mental, and social well-being. The World Health Organization (2024) links poor diet, inactivity, and chronic stress to hypertension, diabetes, obesity, and depression.

Nurses teach patients to live healthily every day. Recent studies show, however, that nurses themselves practice health-promoting behaviors only at a moderate level (Moghimi et al., 2024; Yusuf et al., 2025). Shift work disrupts nurses' sleep and body rhythm, and the resulting fatigue raises the risk of errors in patient care (Inchingolo

et al., 2025). In the Philippines, understaffing, long hours, and low wages leave nurses little time for self-care (Alibudbud, 2024; Nobis & Oducado, 2024).

This study examines the lifestyle practices and health status of staff nurses in a selected hospital in Rizal Province. Its findings will serve as the basis for a proposed workplace wellness program for nurses.

Literature Review

Lifestyle practices of nurses

Yusuf et al. (2025) surveyed 423 hospital nurses in Mogadishu using a modified HPLP-II and found only moderate health-promoting behaviors. Nurses on night shifts and in high-stress units such as the ICU and ER scored lower in all dimensions. Moghimi et al. (2024) also used the HPLP-II among hospital clinical staff and found that lifestyle behaviors differed by sociodemographic characteristics, with physical activity among the weakest areas.

Self-care among Filipino nurses

Nobis and Oducado (2024) studied 135 nurses in three district hospitals in Iloilo. Overall self-care was high, but physical care, which covers diet, water intake, and exercise, was the lowest domain. Alibudbud (2024) noted that understaffing and low wages limit Filipino nurses' time for self-care. Among Filipino nursing students, physical activity was also the least practiced health-promoting behavior (Diana et al., 2023).

Predictors of nurses' health-promoting behaviors

Choi, Kim, and Jeong (2024) conducted a meta-analysis of 50 studies on nurses using Pender's Health Promotion Model. Situational influences, perceived self-efficacy, and activity-related affect had the strongest links to health-promoting behaviors. Udoudo et al. (2023) found that many nurses do some self-care but do not keep it up consistently, with age, income, and work factors playing a role.

Shift work and health status

Inchingolo et al. (2025) reviewed 43 studies on shift-working nurses. Night and rotating shifts disrupt circadian rhythm and are linked to sleep disorders, obesity, hypertension, metabolic syndrome, and anxiety and depression. Better shift planning, rest breaks, napping, physical activity, and relaxation techniques improved nurses' sleep and well-being.

Stress, self-care, and burnout

Lee and Joo (2023) found that self-care moderated the relationships among perceived stress, job burnout, and intention to stay among clinical nurses. Nurses who practiced more self-care were better protected from the effects of stress.

Synthesis

The literature shows that nurses' lifestyle practices are often inadequate, especially in physical activity, nutrition, sleep, and stress management. These gaps relate to poorer physical and mental health. Local studies on the lifestyle and health status of Filipino staff nurses remain limited, and this study aims to fill that gap.

Theoretical Framework

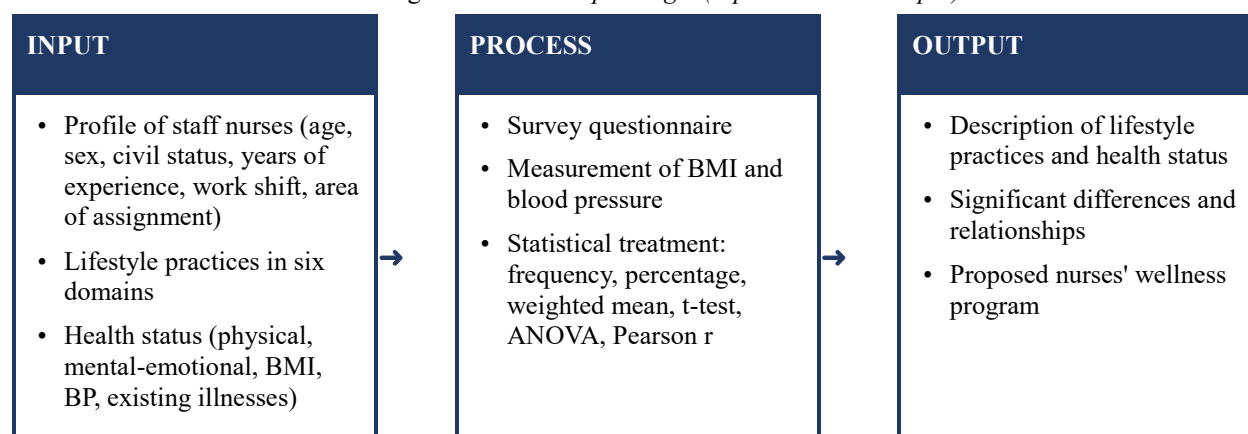
This study is anchored on Nola Pender's Health Promotion Model (HPM) (Choi, Kim, & Jeong, 2024). The model explains that people take action to improve their health based on three groups of factors:

1. **Individual characteristics and experiences** – personal factors such as age, sex, and prior behavior. In this study these are the nurses' demographic profile, length of service, and work shift.

2. **Behavior-specific cognitions and affect** – perceived benefits, perceived barriers, self-efficacy, and interpersonal and situational influences. For nurses, barriers include rotating shifts, workload, and fatigue.
3. **Behavioral outcome** – the health-promoting behavior itself, which leads to better health and quality of life.

Pender's model identifies six health-promoting behaviors, which this study uses as its lifestyle domains: health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management (Moghim et al., 2024). The model suggests that nurses who practice these behaviors more often will have better health status.

Figure 1. *Research paradigm (Input–Process–Output)*



Statement of the Problem

This study aims to determine the lifestyle practices and health status of staff nurses in a selected hospital in Rizal Province. Specifically, it seeks to answer the following questions:

1. What is the demographic profile of the respondents in terms of:
 - a. age;
 - b. sex;
 - c. civil status;
 - d. years of experience as a nurse;
 - e. work shift; and
 - f. area of assignment?
2. What are the lifestyle practices of the respondents in terms of:
 - a. health responsibility;
 - b. physical activity;
 - c. nutrition;
 - d. spiritual growth;
 - e. interpersonal relations; and
 - f. stress management?
3. What is the health status of the respondents in terms of:
 - a. body mass index (BMI);
 - b. blood pressure;
 - c. physical health;

- d. mental and emotional health; and
 - e. existing medical conditions?
4. Is there a significant difference in the lifestyle practices of the respondents when grouped according to their profile?
 5. Is there a significant relationship between the lifestyle practices and the health status of the respondents?
 6. Based on the findings, what wellness program can be proposed for staff nurses?

Hypotheses

The following null hypotheses are tested at the 0.05 level of significance:

- **Ho1:** There is no significant difference in the lifestyle practices of the respondents when grouped according to their profile.
- **Ho2:** There is no significant relationship between the lifestyle practices and the health status of the respondents.

METHODS

Research Design

This study uses a descriptive-correlational design with a quantitative approach. The descriptive part describes the respondents' profile, lifestyle practices, and health status. The correlational part tests whether lifestyle practices are significantly related to health status, without manipulating any variable (Flanagan & Beck, 2025).

Setting

The study was conducted in a selected private and public hospital in Rizal Province, Philippines. The hospital has inpatient wards, an emergency department, intensive care units, an operating room, and outpatient services. Staff nurses work 8- or 12-hour shifts on a rotating schedule.

Participants

The respondents of this study are staff nurses who are registered nurses with a valid PRC license, have been employed as staff nurses in the hospital for at least six months, are assigned to direct patient care in any unit, and are willing to participate in the study and able to give written informed consent. Excluded from the study are nurse managers, supervisors, nurses on extended leave, and pregnant nurses, since pregnancy affects body mass index (BMI) and blood pressure.

Sample size

A population of 120 staff nurses, the sample size was computed using Slovin's formula with a 5% margin of error:

$$n = N / (1 + Ne^2) = 120 / [1 + 120(0.05)^2] \approx 120$$

Respondents were selected through stratified random sampling, with each nursing unit as a stratum, so that every unit is represented in proportion to its number of staff nurses.

Measures

Data was gathered using a researcher-made questionnaire patterned after the six domains of the health-Promoting Lifestyle Profile II (Moghimi et al., 2024). The questionnaire (see Appendix) has three parts:

- **Part I – Demographic profile:** age, sex, civil status, years of experience, work shift, and area of assignment.
- **Part II – Lifestyle practices:** 30 items, 5 per domain, rated on a 5-point Likert scale (5 = Always, 4 = Often, 3 = Sometimes, 2 = Rarely, 1 = Never).
- **Part III – Health status:** measured height, weight, BMI, and blood pressure; 10 self-rated items on physical and mental-emotional health on a 5-point Likert scale (5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree); and a checklist of existing medical conditions.

Interpretation of mean scores

Mean range	Lifestyle practices	Health status (self-rated)
4.21 – 5.00	Always (Very High)	Strongly Agree (Very Good)
3.41 – 4.20	Often (High)	Agree (Good)
2.61 – 3.40	Sometimes (Moderate)	Neutral (Moderate)
1.81 – 2.60	Rarely (Low)	Disagree (Poor)
1.00 – 1.80	Never (Very Low)	Strongly Disagree (Very Poor)

BMI was classified using the Asia-Pacific cut-off points: underweight below 18.5, normal 18.5–22.9, overweight 23.0–24.9, and obese 25.0 and above. Blood pressure will be classified as normal (below 120/80 mmHg), elevated, or hypertensive.

Validity and reliability

Three experts (a nurse educator, a nurse researcher, and a physician or statistician) will review the questionnaire for content validity. A pilot test will be done with 20 nurses from a different hospital, and Cronbach's alpha of at least 0.70 will be considered acceptable.

Procedure

The researcher will first obtain ethics clearance from the institution's Research Ethics Committee and then send a letter of request to the hospital's Chief Nurse and Medical Director. Afterward, the questionnaire will undergo content validation and pilot testing. Respondents will then be selected through stratified random sampling, and written informed consent will be obtained from each of them. The questionnaire will be distributed at the end of each shift, during which the respondents' height, weight, and blood pressure will be measured using calibrated equipment, with each nurse seated and rested for at least five minutes before the blood pressure reading. Finally, the data will be collected, checked, encoded, and analyzed using statistical software such as SPSS.

Statistical treatment

Frequency and percentage will describe the profile, BMI, and blood pressure. Weighted mean will describe lifestyle practices and self-rated health. The t-test and one-way ANOVA will test differences by profile (Ho1). Pearson's r will test the relationship between lifestyle practices and health status (Ho2). The level of significance is set at 0.05.

Ethical considerations

Participation is voluntary, and nurses may withdraw at any time without penalty. No names will appear on the questionnaire. All data will be kept confidential and handled according to the Data Privacy Act of 2012 (RA 10173). Results will be reported only as group data.

Limitation of the Study

The study is limited to the staff nurses of one hospital in Rizal Province, so its findings may not be generalizable to all nurses in the Philippines. Since lifestyle practices and most health status items are self-reported, the responses may be affected by recall bias or socially desirable answers. In addition, blood pressure and body mass index (BMI) are measured only once, which may not accurately reflect the nurses' usual health status. The study's correlational design can show relationships between variables but cannot establish that lifestyle practices cause changes in health status. Lastly, other factors that may affect health, such as genetics, income, and family responsibilities, are not measured in this study.

RESULTS

Demographic Profile of the Respondents

Table 1. *Profile of the respondents (n = 120)*

Profile	Category	Frequency	Percentage
Age	21–25 years	38	31.7%
	26–30 years	44	36.7%
	31–35 years	22	18.3%
	36 years and above	16	13.3%
Sex	Female	88	73.3%
	Male	32	26.7%
Civil status	Single	76	63.3%
	Married	42	35.0%
	Widowed/Separated	2	1.7%
Years of experience	6 months – 2 years	41	34.2%
	3–5 years	45	37.5%
	6–10 years	22	18.3%
	More than 10 years	12	10.0%
Work shift	Rotating	74	61.7%
	Fixed day	28	23.3%
	Fixed night	18	15.0%
Area of assignment	Ward	52	43.3%
	Emergency room	20	16.7%
	Intensive care unit	18	15.0%
	Operating/Delivery room	16	13.3%
	OPD and others	14	11.7%

Most respondents were 26–30 years old (36.7%), female (73.3%), single (63.3%), had 3–5 years of experience (37.5%), worked rotating shifts (61.7%), and were assigned to the wards (43.3%). The staff nurse workforce is therefore young and early in their careers.

Lifestyle Practices of the Respondents

Table 2. *Summary of lifestyle practices by domain*

Domain	Mean	SD	Interpretation	Rank
Spiritual growth	4.04	0.68	Often (High)	1
Interpersonal relations	3.95	0.64	Often (High)	2
Health responsibility	3.19	0.79	Sometimes (Moderate)	3
Nutrition	2.97	0.73	Sometimes (Moderate)	4
Stress management	2.88	0.83	Sometimes (Moderate)	5
Physical activity	2.41	0.93	Rarely (Low)	6
Overall	3.24	0.55	Sometimes (Moderate)	

Overall, the respondents practiced a healthy lifestyle only "sometimes" (mean = 3.24, moderate). They scored highest in spiritual growth (4.04) and interpersonal relations (3.95), and lowest in physical activity (2.41), which they practiced only "rarely." Nutrition and stress management were practiced "sometimes." These results agree with Yusuf et al. (2025), who found moderate health-promoting behaviors among nurses, and with Nobis and Oducado (2024), who found physical care to be the weakest self-care domain of Filipino nurses.

Health Status of the Respondents

Table 3. *BMI and blood pressure of the respondents (n = 120)*

Indicator	Category	Frequency	Percentage
BMI (Asian cut-off)	Underweight (below 18.5)	8	6.7%
	Normal (18.5–22.9)	46	38.3%
	Overweight (23.0–24.9)	30	25.0%
	Obese (25.0 and above)	36	30.0%
Blood pressure	Normal	70	58.3%
	Elevated	31	25.8%
	Hypertensive	19	15.8%

More than half of the respondents (55.0%) were overweight or obese, and 41.6% had elevated or high blood pressure. This supports Inchingolo et al. (2025), who linked shift work among nurses to obesity, hypertension, and metabolic syndrome.

Table 4. *Self-rated physical and mental-emotional health*

Dimension	Mean	SD	Interpretation
Physical health	3.28	0.69	Neutral (Moderate)
Mental and emotional health	3.11	0.80	Neutral (Moderate)
Overall self-rated health	3.20	0.65	Neutral (Moderate)

Respondents rated their overall health as moderate (mean = 3.20), with mental and emotional health slightly lower than physical health.

Table 5. *Existing medical conditions (multiple responses allowed)*

Condition	Frequency	Percentage
None	64	53.3%
Hyperacidity/GERD	26	21.7%
Back pain/musculoskeletal pain	22	18.3%
Anxiety or sleep problems	18	15.0%
Hypertension	15	12.5%
Asthma	7	5.8%
Diabetes mellitus	3	2.5%

The most common conditions were hyperacidity (21.7%), back pain (18.3%), and anxiety or sleep problems (15.0%), which are commonly linked to irregular meals, prolonged standing, and shift work (Inchingolo et al., 2025).

Difference in Lifestyle Practices According to Profile

Table 6. *Test of difference in lifestyle practices by profile*

Profile	Test	Computed value	p-value	Decision	Interpretation
Age	ANOVA	F = 2.14	0.099	Accept Ho1	Not significant
Sex	t-test	t = 1.21	0.229	Accept Ho1	Not significant
Civil status (single vs. married)	t-test	t = 0.88	0.381	Accept Ho1	Not significant
Years of experience	ANOVA	F = 1.67	0.177	Accept Ho1	Not significant
Work shift	ANOVA	F = 5.42	0.006	Reject Ho1	Significant
Area of assignment	ANOVA	F = 1.92	0.112	Accept Ho1	Not significant

Only work shift showed a significant difference ($p = 0.006$). Post-hoc testing showed that nurses on fixed day shifts (mean = 3.48, often) had better lifestyle practices than those on rotating (3.15) and fixed night shifts (3.11), who practiced them only "sometimes." Ho1 is therefore partially rejected. This agrees with Yusuf et al. (2025), who found that night-shift nurses scored significantly lower in all health-promoting dimensions.

Relationship between Lifestyle Practices and Health Status

Table 7. *Correlation between lifestyle practices and overall self-rated health status*

Lifestyle domain	Pearson r	p-value	Strength	Decision
Stress management	0.497	< 0.001	Moderate positive	Reject Ho2
Physical activity	0.458	< 0.001	Moderate positive	Reject Ho2
Nutrition	0.401	< 0.001	Moderate positive	Reject Ho2
Health responsibility	0.312	0.001	Weak positive	Reject Ho2
Interpersonal relations	0.219	0.016	Weak positive	Reject Ho2
Spiritual growth	0.164	0.074	Very weak	Accept Ho2
Overall lifestyle practices	0.512	< 0.001	Moderate positive	Reject Ho2

Scale for r: 0.00–0.19 very weak; 0.20–0.39 weak; 0.40–0.59 moderate; 0.60–0.79 strong; 0.80–1.00 very strong.

Overall lifestyle practices had a significant moderate positive relationship with health status ($r = 0.512$, $p < 0.001$), so Ho2 is rejected. Nurses with better lifestyle practices reported better health. Stress management, physical activity, and nutrition showed the strongest links. Physical activity was also negatively related to BMI ($r = -0.287$, $p = 0.001$), meaning more active nurses tended to have lower BMI. Spiritual growth was the only domain not significantly related to health status.

CONCLUSION

Based on the findings, the following conclusions are drawn:

1. The staff nurses are mostly young, female, single, early-career nurses working rotating shifts.
2. The nurses practice a healthy lifestyle only "sometimes." They are strong in spiritual growth and interpersonal relations but weak in nutrition and stress management, and they rarely engage in physical activity.
3. Nurses rate their health as only moderate, and more than half are overweight or obese and about four in ten have elevated or high blood pressure, showing hidden health risks.
4. Work shift is the only profile factor that makes a significant difference in lifestyle practices. Nurses on rotating and night shifts have poorer lifestyle practices than those on fixed day shifts.
5. Lifestyle practices are significantly and positively related to health status. Improving stress management, physical activity, and nutrition is likely to improve nurses' health.

Recommendations

1. **For staff nurses:** Aim for at least 150 minutes of moderate physical activity per week (World Health Organization, 2024), bring healthy packed meals to duty, drink enough water, and use simple stress-relief practices such as breathing exercises during breaks.
2. **For nurse managers:** Limit consecutive night shifts, ensure adequate rest between shifts, and protect meal and rest breaks during duty.
3. **For hospital administration:** Implement a Nurses' Wellness Program that includes:
 - a. annual and quarterly BMI and blood pressure screening;
 - b. healthy food options in the cafeteria, available on night shifts;
 - c. a fitness or Zumba session schedule that fits rotating shifts;
 - d. stress management and mental health support, including counseling access; and
 - e. peer support groups and recognition for healthy lifestyle achievements.
4. **For the occupational health unit:** Follow up nurses who are obese or hypertensive and refer them for nutrition counseling and medical management.
5. **For nursing schools:** Strengthen self-care and health-promotion content in the nursing curriculum.
6. **For future researchers:** Conduct a similar study with more hospitals and a larger sample, use objective measures such as activity trackers or sleep logs, and test the effect of a wellness intervention on nurses' health status.

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