

# Extent of Health-promoting Lifestyle among Student Nurses in Private Schools in Baguio City: A Quantitative Descriptive Research Study

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## ABSTRACT

**Introduction.** The Bachelor of Science in Nursing (BSN) program spans four years and includes general education and professional courses. Student nurses attend lecture hours, clinical duties, and related learning experiences that might be affecting their time in attending to a healthy lifestyle. Health-promoting lifestyle is a multi-dimensional pattern of activities and perceptions that begins with self-motivation and assists in promoting self-improvement and health. The domains of health-promoting lifestyle are essential factors to further improve their way of dealing with daily challenges. Multiple factors can also influence student nurses' lifestyles, including their separation from family, busy schedules, and dietary choices. A study highlights various factors affecting student nurses' lifestyles, underscoring the need for tailored health promotion strategies and curriculum enhancements. Research into these domains can better equip future healthcare leaders. Gender, year level, and living arrangements influence student nurses' lifestyles, prompting researchers to investigate the extent of health-promoting lifestyles among them and differences based on these factors. By addressing these domains and conducting further research, nursing education and practice can better prepare future healthcare leaders to promote health and lifestyle effectively within their communities.

**Objectives.** To determine the extent of health-promoting lifestyle among student nurses and identify the significant differences according to gender, year level, and living arrangement.

**Methods.** A quantitative, descriptive research design was used with 360 respondents, employing Yamane's formula and quota sampling. The study adopted the Health-Promoting Lifestyle II questionnaire with a validity of 0.962.

**Results.** Student nurses often engage in health-promoting behaviors ( $\bar{x}=2.56$ ). Male student nurses reported higher scores in health responsibility, physical activity, spiritual growth, and stress management compared to female students ( $p=0.40$ ). Level IV students engaged in health-promoting activities more frequently than Level I students ( $p=0.74$ ). Living arrangements did not significantly impact health-promoting lifestyles ( $p=0.99$ ).

**Conclusion.** No significant difference in health-promoting lifestyles among student nurses. Respondents demonstrated the least health-promoting lifestyle behaviors in the domains of health responsibility, nutrition, and physical activity. In contrast, spiritual growth, interpersonal relations, and stress management attained the highest mean scores.

**Keywords:** physical activity, nutrition, interpersonal relation, nursing student, lifestyle



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## INTRODUCTION

The Bachelor of Science in Nursing (BSN) program spans four years and includes general education and professional courses. Student nurses, enrolled in nursing institutions, undergo a structured curriculum aimed at equipping them with necessary nursing skills.<sup>1</sup> The program demands 2,703 hours for Related Learning Experience (RLE) contact and 540-810 hours for self-directed learning, inclusive of a comprehensive nursing practicum. RLE is part of the student nurses' involvement in academic and real-life scenarios that is meant to develop the skills of students using approaches in different health conditions. It caters hands-on experience wherein student nurses can apply their theoretical knowledge into practice and acquire clinical skills in actual settings such as hospitals, clinics, and community health centers. The challenging journey of student nurses in the BSN curriculum can affect their lives in different ways. Adoption of an unhealthy lifestyle might be facilitated by the pressure and time constraints resulting from exposure to unfamiliar and challenging clinical situations, such as shift work, long hours, and care for vulnerable patients.<sup>2</sup>

A healthy lifestyle is defined as the ability to control all behaviors that may affect the health of the individual and to choose behaviors that are appropriate to their health status in organizing their daily activities.<sup>3</sup> Health promotion has been confirmed to be an effective way to help people adopt a healthy lifestyle.<sup>4</sup> The importance of health promotion has been emphasized in preventing certain diseases and safeguarding the nation's health.<sup>5</sup> Living a health-promoting lifestyle entails several things, like eating a healthy, balanced diet, exercising frequently, getting enough sleep, managing stress well, abstaining from bad habits like smoking and binge drinking, and getting regular checkups from doctors.<sup>6</sup> The health-promoting lifestyle is defined as a multi-dimensional pattern of activities and perceptions that begins with self-motivation and assists in promoting and stabilizing self-improvement and health. The health-promoting lifestyle measured by HPLP II focuses on life promotion through lifestyle, comprising six domains.<sup>7</sup>

Health-promoting lifestyle domains are health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management. Health responsibility emphasizes the importance of personal factors and the prior behavior of an individual. In the physical activity domain, students who participate in physical activity are more likely to pay attention to their health.<sup>8</sup> Nutrition is a pivotal domain of student nurses' health-promoting lifestyle. The extended periods of stress that student nurses commonly endure can have a notable impact on their dietary selections, potentially resulting in less-than-optimal choices that adversely affect their efforts to maintain a healthy lifestyle and their nutritional status.<sup>9</sup> Spiritual growth plays a crucial role in the ability to cope with the emotional demands of the nursing profession, especially in the context of adjusting to new environments

and schedules.<sup>8</sup> Past research has highlighted various factors contributing to academic burnout, including personal intrinsic factors such as health status, interpersonal relationships, anxiety, depression, psychological stress, and self-confidence in one's abilities.<sup>10</sup> A researcher stated that these various factors of interpersonal relationships can also impact stress management.<sup>11</sup> Thus, the domains of health-promoting lifestyle are essential factors to further improve their way of dealing with daily challenges. One study further emphasized the multiple factors influencing student nurses' lifestyles, including their separation from family, busy schedules, and dietary choices.<sup>12</sup> These factors highlighted the importance of customized health promotion strategies, curriculum teaching enhancements from Level I to IV, and ongoing research to support the well-being of student nurses. By addressing these domains and conducting further research, nursing education and practice can better prepare future healthcare leaders to promote health and lifestyle effectively within their communities.

The student nurses' lifestyle can be determined by their differences, such as gender, year level, and living arrangements, in conjunction with the health-promoting lifestyle. Gender-related findings have shown varying results, some indicating significant differences and no statistically significant disparities.<sup>5,12-14</sup> Society often prescribes specific expectations for how males and females should behave, which can impact their choices related to health. But for the most part, male's contributions to nursing have been crucial in establishing the profession in and of itself. Male and female student nurses exhibit variations in their health-promoting lifestyle.<sup>15</sup> Studies emphasized that year level is another significant determinant of health-promoting behaviors.<sup>16,17</sup> Differences were noted in the impact of year level on student nurses' health-promoting behavior in the Philippines. One study found a significant influence, with Level IV demonstrating higher health-promoting behaviors than Level I and Level II students.<sup>17</sup> However, another study showed no significant year-level differences.<sup>5</sup> Entering college is often accompanied by changes in living arrangements.<sup>18</sup> The health-promoting lifestyle in living with the parents' group was significantly higher than that of the self-border group.<sup>19,20</sup> Student nurses' living arrangements can be categorized as living alone on-campus or off-campus in a dormitory or an apartment. The other group can be defined as a student nurse who lives with family, family members, or relatives in the same household.

With these different findings of studies, the researchers determined the extent of health-promoting lifestyles among student nurses in the Philippines and if there is a significant difference in the health-promoting lifestyle among student nurses according to gender, year level, and living arrangement.

## METHODS

### Research Design

The study utilized a quantitative descriptive research design which allowed systematic measurement of health-

promoting lifestyle among student nurses, capturing detailed information on lifestyle domains and demographics without manipulating variables. This approach aligned with the study's aim to describe existing conditions and provided comprehensive insights into the target population's health behaviors. A descriptive quantitative study was used to describe individuals, events, and conditions of the subject without manipulation.<sup>6</sup> The researchers described the extent of health-promoting lifestyle among student nurses through a survey consisting of situations about the six domains: health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management. This research design was also used to describe how the demographic data of the respondents, including gender, year level, and living arrangements, affected the health-promoting lifestyle of student nurses. The study was conducted from March 11 to April 16, 2024. This study adhered to SQUIRE (Standards for Quality Improvement Reporting Excellence) guidelines to ensure transparency, rigor, and comprehensive process. The limitation of the study is on gender since the researchers were not able to get the same number of respondents. There are more female than male respondents.

Locale and Population

The study was conducted in two Higher Education Institutions (HEIs) in Baguio City, involving 360 student nurses from Level I to Level IV. Five clinical groups, each consisting of 10–12 students per year level, participated. These groups were selected based on the emailed response from the department heads of each year level, confirming the composition of clinical groups with 10–12 student nurses enrolled in the 2023–2024 academic year.

While it is confined to two HEIs, the findings regarding health-promoting lifestyles among student nurses can still be relevant and beneficial for broader educational contexts. The shared experiences and challenges faced by nursing students across various institutions provide a foundation for applying these insights more widely within the field of nursing education and beyond. A study conducted emphasized that health-promoting lifestyle behaviors among nursing students, the diverse demographics and academic structures of different institutions can yield valuable insights that are applicable to a broader population of student nurses, emphasizing that findings from specific studies can inform health promotion strategies across various educational settings.<sup>5</sup> Inclusion criteria included being 18 years old and above, male and female student nurses, living alone or with family members or relatives, living alone on-campus or off-campus in a dormitory or an apartment, being amenable and committed to being a respondent in the study and being able to read, write, and comprehend English. Exclusion criteria included students who were irregular, students who had children, and working students who did not have time for other activities, including health-promoting activities which helps reduce potential bias, as their unique time constraints and priorities

Table 1. Profile of the Respondent

|                              | F   | P (%) |
|------------------------------|-----|-------|
| <b>Year Level</b>            |     |       |
| Level I                      | 90  | 25    |
| Level II                     | 90  | 25    |
| Level III                    | 90  | 25    |
| Level IV                     | 90  | 25    |
| Total                        | 360 | 100   |
| <b>Gender</b>                |     |       |
| Male                         | 88  | 24.44 |
| Female                       | 272 | 75.56 |
| Total                        | 360 | 100   |
| <b>Living Arrangements</b>   |     |       |
| Lives alone                  | 172 | 47.78 |
| Lives with family/ relatives | 188 | 52.22 |
| Total                        | 360 | 100   |

might disproportionately influence the findings. Table 1 showed the summary of students according to year levels, gender, and living arrangements.

Out of 3,264 enrolled student nurses, 360 were sampled using Yamane's Formula with a 5% margin of error and 95% confidence interval.

Yamane's Formula:

$$n = \frac{N}{1 + Ne^2}$$

Legend:

- N = Population of study
- K = Constant (1)
- e = degree of error expected
- h = sample size

$$n = \frac{3010}{1 + 3010(0.05)^2} = 353$$

Total sample size / total year level = total respondents per year level

353/8 levels from UB and SLU = 44.125 = 45 = 50 sample size/year level

Due to financial and logistical constraints, the researchers opted for representative sampling instead of studying the entire population. Quota sampling was used, dividing the population by year level and selecting 90 students per level to achieve the total sample size of 360. While this approach allowed for efficient resource management and timely insights, it has implications for statistical power and representativeness. To enhance representativeness and minimize potential bias, the Fishbowl method was utilized for randomly selecting participants from each year level per clinical group.

The sample size provides sufficient statistical power to detect moderate to large effects, but the equal distribution of participants across year levels may limit the power to detect smaller, more specific differences within subgroups.

Additionally, focusing on two HEIs and excluding certain groups, such as irregular students, working students, and those with children, may affect the representativeness of the sample. While these constraints may limit the generalizability of the findings, they were necessary to ensure the study's feasibility and manage resources effectively.

### Data Gathering Tool

This study adopted the Health-Promoting Lifestyle II tool, based on 'Health-Promoting Lifestyles among Adolescents'.<sup>4,7</sup> The tool measures lifestyle habits enhancing health, with a total Cronbach's alpha coefficient of 0.962 and subscale alphas from 0.702 to 0.904. Nationally, HPLP II had a Content Validity Index of 1.00 and a Cronbach's alpha of 0.83.<sup>8</sup> It includes 52 items across six domains: health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management, assessing health-promoting lifestyles among student nurses. The HPLP II tool was previously used in the study of Tejada RS involving Filipino student nurses. A study confirms the HPLP II tool's applicability for the current research by highlighting its suitability in the Filipino cultural and educational context.<sup>8</sup>

### Data Gathering Procedure

The researchers submitted the study to the HEI Research Ethical Committee (REC) for approval. Once approved, the letter of approval was submitted to the University Research and Innovation Center (UnRIC). The researchers requested permission from the respective Associate Dean or Dean of the Nursing Program and department heads to distribute questionnaires to student nurses from Level I to IV. Upon receiving approval, the researchers coordinated with class presidents to distribute questionnaires to five randomly selected clinical groups per year level. Questionnaires were distributed during the students' vacant periods, contingent on their agreement. Respondents first filled out an informed consent form to ensure voluntary participation. After consenting, respondents proceeded to answer parts three and four of the questionnaire (Appendix) within a 10-15 minute timeframe. Researchers checked for completeness and thanked respondents for their participation. If respondents were unable to participate, researchers asked for an alternative date and time or state their reasons for not participating. The gathered data were analyzed using appropriate statistical methods.

### Statistical Treatment

The researchers analyzed the data using SPSS 27 software, utilizing a sample of 360 respondents determined by Yamane's formula. To ensure data integrity, the researchers reviewed all responses for completeness during data collection and provided guidance to address any questions from respondents. This thorough process ensured that no missing data points were encountered in the study, as all data were fully completed before respondents exited the room.

**Table 2.** Extent of Health-promoting Lifestyle

| Score       | Interpretation | Description  |
|-------------|----------------|--|
| 1.00 - 1.75 | Never (N)      | The student nurse has not observed any of the health-promoting lifestyles over the past 30 days, indicating an absence of the behavior.  |
| 1.76 - 2.50 | Sometimes (S)  | The student nurse missed a health-promoting lifestyle once or twice over the past 30 days, reflecting occasional engagement, likely due to constraints such as academic workload or limited resources. |
| 2.51 - 3.25 | Often (O)      | The student nurse missed a health-promoting lifestyle three to four times over the past 30 days, suggesting frequent engagement with minor lapses.   |
| 3.26 - 4.00 | Routinely (R)  | The student nurse never missed practicing a health-promoting lifestyle over the past 30 days, indicating consistent engagement in the behavior.  |

Descriptive statistics were employed to compare respondents based on gender, year level, and living arrangements. Inferential statistics, specifically the T-Test and F-Test, were used to assess significant differences in health-promoting lifestyles across these variables. The T-Test compared the means of two groups, while the F-Test compared group variances to determine statistical significance.

The analysis maintained the 1 to 4 metric of item responses by utilizing means instead of sums, facilitating meaningful comparisons across domains. For the extent of Health-promoting Lifestyle, Table 2 summarized the scores, their interpretations, and descriptions. Data interpretation was primarily based on the computed means.

### Ethical Considerations

#### Informed Consent

The participation in this study is voluntary. Prospective respondents have the choice to decide whether to engage. Those willing to participate must sign a written informed consent form. Respondents have the right to withdraw at any stage without consequences. Non-participation decisions are fully respected by the researchers.

#### Risks, Benefits, and Safety

Participation in the study carried no expected risks, with no interventions introduced. The study provides valuable insights into student nurses' health-promoting lifestyles, aiding in program development. Withdrawal options without coercion are ensured, with psychosocial support available upon request with consent.

#### Privacy and Confidentiality of Information

Anonymity was observed by not obtaining the names and other direct identifiers of the respondents. Instead, the



researchers assigned code numbers to each respondent so that they will not be identified with the answers that they will provide. Information from the respondents were treated with utmost confidentiality. The data gathered was properly secured and accessed only by the researchers. The data were not utilized for other purposes except for this research.

Justice

All of the student nurses from the two HEIs were given equal opportunity to participate in the research. Researchers recognized that student nurses might have diverse schedules and commitments, and the research process accommodates these differences by offering flexible timing for participation and ensuring accessibility for the students.

Even though every student nurse from the two HEIs had an equal chance to participate in the study, the exclusion criteria—working students, students with children, and irregular students—may indirectly promote disparities. Those who are struggling financially or personally may be disadvantaged if irregular students are excluded, which could silence views from socioeconomically disadvantaged groups. Working students who balance work with school may be excluded while providing insightful opinions, and students with children—who are frequently women or from lower socioeconomic backgrounds—may encounter extra obstacles to participation.

Transparency

The research study underwent approval by the Research Ethics Committee to adhere to ethical standards. Before distributing questionnaires, respondents received explanations about the research goals, methods, and processes. Informed consent was ensured by providing thorough information on the technique, goals, and significance of their contribution. Confidentiality was prioritized, with sensitive data handled carefully and respondents' privacy maintained through anonymity.

RESULTS

Table 3. Extent of Health-promoting Lifestyle among Student Nurses

| Domain                  | $\bar{X}$ | I |
|-------------------------|-----------|---|
| Health Responsibility   | 2.21      | S |
| Physical Activity       | 2.40      | S |
| Nutrition               | 2.32      | S |
| Spiritual Growth        | 2.95      | O |
| Interpersonal Relations | 2.92      | O |
| Stress Management       | 2.55      | O |
| $\bar{X}$ Average       | 2.56      | O |

Legend:  
1.00 – 1.75 = N (Never)  
1.76 – 2.50 = S (Sometimes)  
2.51 – 3.25 = O (Often)  
3.26 – 4.00 = R (Routinely)  
 $\bar{X}$  = Mean  
I = Interpretation

Table 3a. Health Responsibility

| Questions  | $\bar{X}$ | I |
|--|-----------|---|
| 3. Report any unusual signs or symptoms to a physician or other health professional.     | 2.12      | S |
| 9. Read or watch TV programs about improving health.                                     | 2.11      | S |
| 15. Question health professionals in order to understand their instructions.             | 2.36      | S |
| 21. Get a second opinion when I question my health care provider's advice.               | 2.05      | S |
| 27. Discuss my health concerns with health professionals.                                | 2.15      | S |
| 33. Inspect my body at least monthly for physical changes/danger signs.                  | 2.68      | O |
| 39. Ask for information from health professionals about how to take good care of myself. | 2.21      | S |
| 45. Attend educational programs on personal health care.                                 | 1.97      | S |
| 51. Seek guidance or counseling when necessary.  | 2.21      | S |
| $\bar{X}$ Average  | 2.21      | S |

Legend:  
1.00 – 1.75 = N (Never)  
1.76 – 2.50 = S (Sometimes)  
2.51 – 3.25 = O (Often)  
3.26 – 4.00 = R (Routinely)  
 $\bar{X}$  = Mean  
I = Interpretation

Table 3b. Physical Activity

| Questions  | $\bar{X}$ | I |
|--|-----------|---|
| 4. Follow a planned exercise program.  | 1.94      | S |
| 10. Exercise vigorously for 20 or more minutes at least three times a week (such as brisk walking, bicycling, aerobic dancing, using a stair climber).           | 2.32      | S |
| 16. Take part in light to moderate physical activity, (such as sustained walking 30-40 minutes 5 or more times a week).  | 2.65      | O |
| 22. Take part in leisure time (recreational) physical activities (such as swimming, dancing, bicycling).   | 2.38      | S |
| 28. Do stretching exercises at least 3 times per week.   | 2.42      | S |
| 34. Get exercise during usual daily activities (such as walking during lunch, using stairs instead of elevators, parking car away from destination and walking). | 3.10      | O |
| 40. Check my pulse rate when exercising.   | 2.38      | S |
| 46. Reach my target heart rate when exercising.  | 2.04      | S |
| $\bar{X}$ Average  | 2.40      | S |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

Table 3c. Nutrition

| Questions   | $\bar{X}$ | I |
|---|-----------|---|
| 2. Choose a diet low in fat, saturated fat, and cholesterol.  | 2.17      | S |
| 8. Limit use of sugars and food containing sugar (sweets).  | 2.14      | S |
| 14. Eat 6-11 servings of bread, cereal, rice, and pasta each day.                                   | 2.10      | S |
| 20. Eat 2-4 servings of fruit each day.   | 2.17      | S |
| 26. Eat 3-5 servings of vegetables each day.  | 2.29      | S |
| 32. Eat 2-3 servings of milk, yogurt or cheese each day.  | 2.31      | S |
| 38. Eat only 2-3 servings from the meat, poultry, fish, dried beans, eggs, and nuts group each day. | 2.80      | O |
| 44. Read labels to identify nutrients, fats, and sodium content in packaged food.                   | 2.48      | S |
| 50. Eat breakfast.  | 2.44      | S |
| $\bar{X}$ Average   | 2.32      | S |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

Table 3d. Spiritual Growth

| Questions   | $\bar{X}$ | I |
|---|-----------|---|
| 6. Feel I am growing and changing in positive ways.     | 2.71      | O |
| 12. Believe that my life has a purpose.                 | 3.11      | O |
| 18. Look forward to the future.                         | 3.29      | R |
| 24. Feel content and at peace with myself.              | 2.72      | O |
| 30. Work toward long-term goals in my life.             | 3.04      | O |
| 36. Find each day interesting and challenging.          | 2.80      | O |
| 42. Am aware of what is important to me in life.        | 3.20      | O |
| 48. Feel connected with some force greater than myself. | 2.70      | O |
| 52. Expose myself to new experiences and challenges.    | 3.02      | O |
| $\bar{X}$ Average                                       | 2.95      | O |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

Table 3e. Interpersonal Relations

| Questions   | $\bar{X}$ | I |
|---|-----------|---|
| 1. Discuss my problems and concerns with people close to me.        | 2.53      | O |
| 7. Praise other people easily for their achievements.               | 3.13      | O |
| 13. Maintain meaningful and fulfilling relationships with others.   | 3.24      | O |
| 19. Spend time with close friends.                                  | 3.20      | O |
| 25. Find it easy to show concern, love, and warmth to others.       | 2.91      | O |
| 31. Touch and am touched by people I care about.                    | 2.95      | O |
| 37. Find ways to meet my needs for intimacy.                        | 2.53      | O |
| 43. Get support from a network of caring people.                    | 3.01      | O |
| 49. Settle conflicts with others through discussion and compromise. | 2.82      | O |
| $\bar{X}$ Average   | 2.92      | O |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

**Table 3f. Stress Management**

| Questions  | $\bar{X}$ | I |
|--|-----------|---|
| 5. Get enough sleep.   | 2.09      | S |
| 11. Take some time for relaxation each day.                    | 2.79      | O |
| 17. Accept those things in my life which I cannot change.      | 2.92      | O |
| 23. Concentrate on pleasant thoughts at bedtime.               | 2.53      | O |
| 29. Use specific methods to control my stress.                 | 2.68      | O |
| 35. Balance time between work and play.                        | 2.67      | O |
| 41. Practice relaxation or meditation for 15-20 minutes daily. | 2.23      | S |
| 47. Pace myself to prevent tiredness.                          | 2.51      | O |
| $\bar{X}$ Average  | 2.55      | O |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

**Table 4a. Extent of Health-promoting Lifestyle among Student Nurses according to Gender**

| Domain                  | Male (n=88) |   | Female (n=272) |   |
|-------------------------|-------------|---|----------------|---|
|                         | $\bar{X}$   | I | $\bar{X}$      | I |
| Health Responsibility   | 2.29        | S | 2.18           | S |
| Physical Activity       | 2.68        | O | 2.37           | S |
| Nutrition               | 2.45        | S | 2.28           | S |
| Spiritual Growth        | 3.06        | O | 2.91           | O |
| Interpersonal Relations | 2.86        | O | 2.87           | O |
| Stress Management       | 2.65        | O | 2.48           | O |
| $\bar{X}$ Average       | 2.67        | O | 2.52           | O |
| CV: 0.877               | p: 0.401    |   |                |   |
| TV: 2.228               |             |   |                |   |
| I: Not Significant      |             |   |                |   |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

CV = Computed Value

TV = Tabular Value

p = p-value (0.05 level of significance)

**Table 4b. Extent of Health-promoting Lifestyle among Student Nurses according to Year Level**

| Year level         | $\bar{X}$ | I |
|--------------------|-----------|---|
| Level I (n=90)     | 2.37      | S |
| Level II (n=90)    | 2.50      | S |
| Level III (n=90)   | 2.51      | O |
| Level IV (n=90)    | 2.52      | O |
| $\bar{X}$ Average  | 2.48      | S |
| CV: 0.426          | p: 0.736  |   |
| TV: 3.098          |           |   |
| I: Not Significant |           |   |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

CV = Computed Value

TV = Tabular Value

p = p-value (0.05 level of significance)

**Table 4c. Extent of Health-promoting Lifestyle among Student Nurses according to Living Arrangement**

| Domain                  | Living alone (n=172) |   | Living with family (n=188) |   |
|-------------------------|----------------------|---|----------------------------|---|
|                         | $\bar{X}$            | I | $\bar{X}$                  | I |
| Spiritual Growth        | 2.99                 | O | 2.90                       | O |
| Interpersonal Relations | 2.90                 | O | 2.86                       | O |
| Stress Management       | 2.51                 | O | 2.51                       | O |
| Physical Activity       | 2.42                 | S | 2.45                       | S |
| Nutrition               | 2.28                 | S | 2.34                       | S |
| Health Responsibility   | 2.19                 | S | 2.21                       | S |
| $\bar{X}$ Average       | 2.55                 | O | 2.55                       | O |
| CV: 0.019               | p: 0.985             |   |                            |   |
| TV: 2.228               |                      |   |                            |   |
| I: Not Significant      |                      |   |                            |   |

Legend:

1.00 - 1.75 = N (Never)  
 1.76 - 2.50 = S (Sometimes)  
 2.51 - 3.25 = O (Often)  
 3.26 - 4.00 = R (Routinely)

 $\bar{X}$  = Mean

I = Interpretation

CV = Computed Value

TV = Tabular Value

p = p-value (0.05 level of significance)

## DISCUSSION

Table 3 presents data regarding the student nurses' frequent engagement in spiritual growth activities and least frequently in health responsibility behaviors. The overall average score is 2.56, indicating they often engage in health-promoting behaviors. Several studies support these findings, suggesting that the high mean score in spiritual activities helps students cope with academic and clinical stress.<sup>5,8</sup> This suggests that many student nurses turn to spirituality to cope with the stress of their studies and clinical duties. The demands of nursing school can be overwhelming, and spirituality may provide comfort and strength. Practices like prayer or meditation might help them manage these challenges. The low score for health responsibility could mean that, due to their busy schedules, student nurses often choose convenient options like fast food and skip exercise.

Table 3a, in the domain of health responsibility which fosters self-inspection, where the mean score is 2.68, since they frequently check their bodies for signs of physical or danger signals during clinical training. However, attendance at personal healthcare education programs is minimal with a mean score of 1.97 as students tend to rely on the knowledge that they gain from their curricula and not from any programs they attend. Student nurses only sometimes attend educational programs on personal health care. This may be because they acquire health-related knowledge through lectures and clinical experience, reducing the need for such programs. Decisions, both to attend and to not attend lectures, were based on conscious choices. These were guided by the students' self-governing of their own personal needs for learning, including factors such as time and structure of their learning.

In Table 3b, student nurses primarily have incorporated physical activity into their daily routines by ensuring they walk or climb stairs, which has the highest mean score of 3.10. Planned exercise programs are seldom followed, with the lowest mean score of 1.94. Students in educational institutions often spend considerable time sitting. However, depending on their field, they may engage in moderate standing activities (e.g., laboratory work), intense standing tasks (e.g., clinical duties), and frequent walking between facilities. Nursing students, in particular, may struggle to maintain a consistent exercise regimen due to time constraints, academic obligations, and seasonal factors.

In Table 3c, nutrition behaviors show mindful protein intake with a mean score of 2.80, but carbohydrate-rich foods are consumed less frequently, with a mean score of 2.10. The findings suggest that while student nurses prioritize protein intake in their meals, their carbohydrate consumption is insufficient and often comes from less nutritious sources like fast food. This dietary pattern reflects the challenges they face in accessing balanced and varied food options, likely due to time constraints, academic demands, and the prevalence of convenient but unhealthy food outlets near educational

institutions. Student nurses do not have adequate access to carbohydrate-rich food sources, as fast food option often surround them. A lack of proper meal planning and reliance on fast food may contribute to an imbalanced diet, impacting their overall health and energy levels essential for their demanding schedules.

Table 3d highlights the extent of health-promoting lifestyle within the spiritual growth domain. A mean score of 3.29 for "Looking forward to the future," signifying positive attitudes toward career advancements, personal growth, and life achievements. This may be attributed to perceptions about nursing as a meaningful and pride-worthy profession due to its focus on helping others. In contrast, the lowest mean score of 2.70 on "Feeling connected with some force greater than myself" implies that time pressures, lack of motivation, and organizational challenges prevent the practice of prayer or attending church and, therefore, lack of spiritual connection that may affect their ability to fully embrace holistic care, as time constraints and motivational challenges can impede practices that nurture this aspect of well-being.

Table 3e displays data on the extent of health-promoting lifestyles among student nurses within the interpersonal relations domain with the highest mean score of 3.24. However, a low score of 2.53 reveals even less frequent discussion on personal matters and lower meeting intimacy needs. This indicates that effective interpersonal relations will help in providing enhanced public well-being. Effective communication and powerful interpersonal relationships will ensure good comfort and cooperation among workmates in the workplace setting. These relationships also play a key role in teaching and applying practical health knowledge, enhancing the overall well-being of both healthcare professionals and the public. This underlines the importance that student nurses place on building and maintaining positive interpersonal connections.

Table 3f shows data on stress management in health-promoting lifestyles with the highest mean score of 2.92. However, the lower mean score of 2.09 shows difficulties as far as sleep is involved, which is one of the challenges their busy programs bring. The average sum score of 2.55 shows that the involvement in stress management activities is ongoing, and acceptance is pinpointed as an important emotion-based coping strategy. While student nurses commonly use acceptance to manage stress, they struggle with getting enough sleep due to their demanding schedules. This highlights the need to address sleep issues to improve their overall well-being and stress management.

Table 4a shows the extent of the health-promoting lifestyle among the student nurses according to gender which reveals that both male and female students share a goal-directed outlook that is hopeful and optimistic about the future. It leads to student nurses acquiring sufficient knowledge through lectures and clinical experience. This being the case, the most common among health responsibilities for both the genders would be their training in thorough patient assessment, while the least common is attending health



education programs as they gain much knowledge from lectures and other clinical experience.

Studies from various countries support the findings of the present study by showing the significant impact of religion and culture on health-promoting lifestyles among student nurses. In Arabian countries and in Jordan, as noted by studies, Islam influences health behaviors, while in Malaysia and Turkey, cultural beliefs support spiritual growth.<sup>21,24</sup> It was also found that high spiritual growth scores among Filipino students from a Catholic institution, unlike in Hong Kong, where stress led to lower spiritual satisfaction.<sup>8,25</sup> There was also low health responsibility scores among Canadian and Jordanian students, with other studies noting higher scores in males due to females' additional responsibilities.<sup>22,23</sup> For gender differences, societal expectations, and life transitions affect health behaviors and self-care priorities.<sup>26,27</sup> As student nurses, both genders are expected to prioritize patient care to promote optimal functioning, which can impact their own health promotion efforts.

Canadian and Jordanian student nurses ranked health responsibility lowest among subscales, as noted by a study.<sup>23</sup> Additionally, male students had higher health responsibility scores on average compared to female students.<sup>22</sup> This discrepancy may be attributed to the additional burdens placed on female students, who are often expected to balance academic studies with familial responsibilities such as household chores and caring for siblings,

In the Health Promotion Model, elevated perceived self-efficacy coincides with the confidence individuals have in integrating spiritual activities into their lifestyles. This confidence leads to positive emotional experiences (activity-related affect) and a stronger commitment to maintaining spiritual practices despite competing demands and preferences. Similarly, gender-specific dynamics align with this model, as societal expectations and cultural beliefs influence health behaviors. Regarding the Transition Theory, it sheds light on the finding that females scored lowest in the health responsibility domain. Females may be experiencing specific life transitions or situational factors hindering their sense of responsibility for their health. They might be balancing caregiving roles, managing multiple responsibilities, or facing societal expectations and prioritizing the well-being of others over their own.

Table 4b shows health-promoting lifestyles among students across different year levels, with Level IV exhibiting the highest mean score of 2.52, compared to Level I with 2.37. It indicates that higher year students gain more knowledge about healthy lifestyles.<sup>28</sup> Student nurses generally show high spiritual growth, especially in the Levels I to IV, reflecting a strong commitment to nursing. A study found that positive spiritual care attitudes correlate with greater perceived competence in spiritual care.<sup>29</sup> However, feelings of connection to a higher force are lowest among Levels I, III, and IV, possibly due to the demands of the nursing curriculum causing burnout and stress.<sup>30</sup> Also, feelings of

worthiness impact students' sense of belonging in clinical environments.<sup>31</sup>

Another low-rated item is the feeling of growing and changing positively, especially in Levels I and II. Level IV students feel less content and at peace, likely due to pressures of graduation and board exams.<sup>32</sup>

The lowest domain for student nurses is health responsibility. Level IV students excel in self-inspection for physical changes and seeking second opinions, reflecting their knowledge and confidence in healthcare.<sup>33</sup> However, attendance at personal healthcare educational programs is low across all levels due to heavy workloads and specific duties.

While higher-level students show healthier behaviors, overall lifestyle habits indicate no significant difference in health-promoting lifestyles by year level.<sup>8,34</sup>

Table 4c, the extent of health-promoting lifestyle among student nurses according to living arrangements shows no significant differences ( $F = 0.02$ ,  $p = 0.99$ ). Students living alone have slightly higher spiritual growth scores (2.99) compared to those living with family (2.90). Health responsibility scores are similarly low for both groups, with scores of 2.21 for those living with family and 2.19 for those living alone. Even though the health lifestyle of off-campus students might be less healthy, however, the living arrangements themselves do not seem to significantly impact their health-promoting behaviors.

Subgroup analyses combining factors such as gender and year level reveal nuanced trends in health-promoting behaviors. For instance, male Level IV students exhibit higher scores in physical activity, particularly in walking or climbing stairs (mean score: 3.15), compared to female students in the same level (mean score: 3.05). This trend may reflect gender-based differences in coping mechanisms and stress management during the demanding final year of nursing education.

In contrast, female students across all year levels consistently show higher scores in spiritual growth activities, with Level II females scoring the highest (mean score: 3.35), highlighting their reliance on spiritual practices to cope with academic stress. This difference aligns with cultural and societal expectations that may encourage females to seek spiritual solace.

Additionally, combining gender and year level reveals that both male and female students in Levels III and IV report slightly higher health responsibility scores (mean score: 2.75) compared to lower levels. However, males in Level I demonstrate the lowest health responsibility scores (mean score: 2.15), suggesting that the maturity and clinical exposure gained in higher levels contribute to improved health awareness and behaviors.

The results highlight critical areas for improvement of health-promoting behaviors in student nurses, with clear inference for the nursing curriculum. The lowest mean score within the health responsibility domain (2.21) reflects a failure to prioritize students' own health due to academic

and clinical demands. Thus, workshops on self-health monitoring and preventive care should be integrated into nursing programs. Modules on the responsibility of health can also be incorporated within existing courses, emphasizing responsibility in patient care for better accountability and well-being.

In the physical activity domain, where the mean score was 2.40, students engaged in exercise occasionally. This again points out that nursing curricula should incorporate scheduled time for physical activity, like a short exercise break during lectures or clinical rotations, to promote an active lifestyle. Moreover, in the domain of nutrition, with a mean score of 2.32, was another area of concern. This could be enhanced by nursing programs if nutrition-focused activities are made prominent, such as conducting meal planning workshops and having healthy eating habits as part of practical courses.

The spiritual growth domain achieved the highest mean score with 2.95 indicating the coping mechanism students employed to handle the stress involved in academic and clinical matters. However, this could be strengthened if mindfulness training and reflective practices are incorporated in the curriculum. Similarly, high scores in interpersonal relations and stress management have a potential to build on their strengths with mean scores of 2.92 and 2.55, respectively. These areas can be developed further by nursing educators with team-building exercises and stress management techniques in training programs.

Overall, these results suggest that there is an important need to adopt a holistic approach to the health-promotion component in nursing curricula, allowing evidence-based strategies to both academic and clinical components.

### Limitations

One limitation of the study is the gender imbalance among respondents, with more female participants than male, which may affect the generalizability of the findings. Additionally, the use of self-reported surveys introduces the potential for response bias, including social desirability bias, where respondents may provide answers that they believe are more socially acceptable rather than reflecting their true attitudes or behaviors. This can influence the accuracy of the data, particularly in sensitive topics.

Another limitation is that the findings may not be easily generalizable beyond the specific nursing education setting in which the study was conducted. Institutional, cultural, and environmental factors may vary across different nursing programs, potentially affecting the applicability of the results. However, the insights gained from this study can still inform health-promoting lifestyle strategies in similar educational contexts.

The sample used quota sampling and might have introduced bias in representing the broader population of student nurses. The findings in terms of gender may be unbalanced because there were 272 females and only 88 males, which makes it challenging to generalize the results.

More to these are the contextual variables including the cultural differences of people at the two HEIs in Baguio City; hence limiting its transferability to other programs for nurses. Methodologically, using the questionnaire of Health-Promoting Lifestyle II means there will be social desirability bias in over-reporting favorable health behaviors among the participants. Finally, the study's cross-sectional design prevents the determination of causal relationships among the examined variables.

## CONCLUSIONS

The result of the study showed that student nurses struggle most with health responsibility, nutrition, and physical activity, but excel in spiritual growth, interpersonal relations, and stress management. To address these struggles, nutrition course for student nurses should be improved to offer a more thorough instruction on nutrition strategies. It should also be a priority to include physical activity into the classroom through activities like short exercise breaks or incorporating talks about the value of physical activity in managing health.

While no overall difference in health-promoting behaviors was found, females receive more social support than males, and students in higher academic years engage more in health-promoting activities. Additionally, spiritual growth scores were highest, especially among student nurses living alone, while health responsibility scores were the lowest for the two groups.

### Recommendations

#### *For health responsibility:*

- Actively promote the importance of attending educational programs by discussing health-related topics such as nutrition and physical activity. This approach can encourage students to attend and ensure they recognize the importance of these programs in their professional development.

#### *For physical activity:*

- Clinical instructors or student leaders in their classrooms can provide a 3–5-minute zumba session or other physical activities inside the classroom before their scheduled lecture.

#### *For nutrition:*

- Encourage the vendors in the school cafeteria to provide more nutritious foods. This will encourage student nurses to choose healthier options available on campus.
- Emphasize proper nutritional intake, meal preparation, and the importance of having a nutritious meal as student nurses during nutrition lectures.

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## Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

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## APPENDIX

### Questionnaire

**Instruction:** Tick the item (/) that corresponds to your response.

#### Part III. Demographic Profile

- A. Gender:** Male ( ) Female ( )
- B. Year Level:** Level I ( ) Level II ( ) Level III ( ) Level IV ( )
- C. Living Arrangement:** Lives alone ( ) Lives with family/relative ( )

**Instructions:** This questionnaire contains statements about your health-promoting lifestyle for the past 30 days. Please respond to each item as accurately as possible, and do not skip any item. Kindly put a tick (/) in the box that corresponds to your response.

**Tick:**

- 1 – **Never:** I have never followed this health-promoting lifestyle in the past 30 days.
- 2 – **Sometimes:** I have missed practicing this health-promoting lifestyle three to four times over the past 30 days.
- 3 – **Often:** I have missed practicing this health-promoting lifestyle once or twice over the past 30 days.
- 4 – **Routinely:** I have never missed practicing this health-promoting lifestyle over the past 30 days.

| Statements   | Never | Sometimes | Often | Routinely |
|--|-------|-----------|-------|-----------|
| 1. Discuss my problems and concerns with people close to me.   |       |           |       |           |
| 2. Choose a diet low in fat, saturated fat, and cholesterol.   |       |           |       |           |
| 3. Report any unusual signs or symptoms to a physician or other health professional.   |       |           |       |           |
| 4. Follow a planned exercise program.  |       |           |       |           |
| 5. Get enough sleep.   |       |           |       |           |
| 6. Feel I am growing and changing in positive ways.  |       |           |       |           |
| 7. Praise other people easily for their achievements.  |       |           |       |           |
| 8. Limit use of sugars and food containing sugar (sweets).   |       |           |       |           |
| 9. Read or watch TV programs about improving health.   |       |           |       |           |
| 10. Exercise vigorously for 20 or more minutes at least three times a week (such as brisk walking, bicycling, aerobic dancing, using a stair climber). |       |           |       |           |
| 11. Take some time for relaxation each day.  |       |           |       |           |
| 12. Believe that my life has a purpose.  |       |           |       |           |
| 13. Maintain meaningful and fulfilling relationships with others.  |       |           |       |           |
| 14. Eat 6-11 servings of bread, cereal, rice, and pasta each day.  |       |           |       |           |
| 15. Question health professionals in order to understand their instructions.   |       |           |       |           |



## Extent of Health-promoting Lifestyle among Student Nurses

| Statements   | Never | Sometimes | Often | Routinely |
|--|-------|-----------|-------|-----------|
| 16. Take part in light to moderate physical activity, (such as sustained walking 30-40 minutes, 5 or more times a week)  |       |           |       |           |
| 17. Accept those things in my life which I cannot change.  |       |           |       |           |
| 18. Look forward to the future.  |       |           |       |           |
| 19. Spend time with close friends.   |       |           |       |           |
| 20. Eat 2-4 servings of fruit each day.  |       |           |       |           |
| 21. Get a second opinion when I question my health care provider's advice.   |       |           |       |           |
| 22. Take part in leisure time (recreational) physical activities (such a swimming, dancing, bicycling)   |       |           |       |           |
| 23. Concentrate on pleasant thoughts at bedtime.   |       |           |       |           |
| 24. Feel content and at peace with myself.   |       |           |       |           |
| 25. Find it easy to show concern, love, and warmth to others.  |       |           |       |           |
| 26. Eat 3-5 servings of vegetables each day.   |       |           |       |           |
| 27. Discuss my health concerns with health professionals.  |       |           |       |           |
| 28. Do stretching exercises at least 3 times per week.   |       |           |       |           |
| 29. Use specific methods to control my stress.   |       |           |       |           |
| 30. Work toward long-term goals in my life.  |       |           |       |           |
| 31. Touch and am touched by people I care about.   |       |           |       |           |
| 32. Eat 2-3 servings of milk, yogurt, or cheese each day.  |       |           |       |           |
| 33. Inspect my body at least monthly for physical changes/danger signs.  |       |           |       |           |
| 34. Get exercise during usual daily activities (such as walking during lunch, using stairs instead of elevators, parking car away from destination and walking). |       |           |       |           |
| 35. Balance time between work and play.  |       |           |       |           |
| 36. Find each day interesting and challenging.   |       |           |       |           |
| 37. Find ways to meet my needs for intimacy.   |       |           |       |           |
| 38. Eat only 2-3 servings from the meat, poultry, fish, dried beans, eggs, and nuts group each day.  |       |           |       |           |
| 39. Ask for information from health professionals about how to take good care of myself.   |       |           |       |           |
| 40. Check my pulse rate when exercising.   |       |           |       |           |
| 41. Practice relaxation or meditation for 15-20 minutes daily.   |       |           |       |           |
| 42. Am aware of what is important to me in life.   |       |           |       |           |
| 43. Get support from a network of caring people.   |       |           |       |           |
| 44. Read labels to identify nutrients, fats, and sodium content in packaged food.  |       |           |       |           |
| 45. Attend educational programs on personal health care.   |       |           |       |           |
| 46. Reach my target heart rate when exercising.  |       |           |       |           |
| 47. Pace myself to prevent tiredness.  |       |           |       |           |
| 48. Feel connected with some force greater than myself.  |       |           |       |           |
| 49. Settle conflicts with others through discussion and compromise.  |       |           |       |           |
| 50. Eat breakfast.   |       |           |       |           |
| 51. Seek guidance or counseling when necessary.  |       |           |       |           |
| 52. Expose myself to new experiences and challenges.   |       |           |       |           |