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# NURSING, MIDWIFERY AND HEALTH PSYCHOLOGY STUDENTS' ATTITUDE TOWARDS HEALTH-PROMOTING BEHAVIOURS: A CROSS-SECTIONAL STUDY

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**Key words**: *health-promoting behaviours, students, nurse, midwifery*
**Ключові слова**: *здоров'язберігаюча поведінка, студенти, медична сестра, акушерка*

**Abstract. Nursing, midwifery and health psychology students' attitude towards health-promoting behaviours: a cross-sectional study. Xhakollari L., Kraja J., Marku M., Fresku E.** *The present study focuses on the assessment of health-promoting behaviors and the manner in which the curriculum of teaching programs affects students in the bachelor's degree programs in Nursing and Midwifery, as well as the professional master's degree program in Health Psychology. The study used a descriptive correlational design. The data were collected between 15th of February and 15th of March, 2024 from undergraduate students enrolled in nursing and midwifery programmes, as well as postgraduate students pursuing a professional master's degree in Health Psychology at the Faculty of Natural Sciences, University of Shkodra "Luigj Gurakuqi", Shkodër, Albania. The data were collected using an online questionnaire comprising three sections. The first section incorporated socio-demographic variables. The second section incorporated the Health-Promoting Lifestyle Profile II (HPLP II) questionnaire, developed by Walker et al., 1995, to assess health-promoting behaviours. The third section of the study focused on curricular formation and included three questions designed to assess students' perceptions of health promotion in their academic programmes. The mean overall Health-Promoting Lifestyle Profile II (HPLP II) score was 2.60±0.40, indicating that, on average, students follow health-promoting behaviours from "sometimes" to "often". Among the six subscales, spiritual growth (2.99±0.50) and interpersonal relations (2.89±0.47) had the highest mean scores, suggesting that students more frequently follow behaviours related to personal development and social support. The findings of the study indicated that students enrolled in both bachelor's degree programmes in Nursing and Midwifery and master's degree programmes in Health Psychology, despite being presumed to possess a substantial body of knowledge on health-promoting behaviours, do not consistently implement these practices in their daily lives. Given their role as role models for others, health personnel have a dual responsibility for the promotion of healthy behaviours. This finding suggests a deficiency in the incorporation of health-promoting behaviours as a core value within the curricula of bachelor's degree programmes in nursing and midwifery.*

**Реферат. Ставлення студентів, які навчаються за спеціальностями «Медсестринство», «Акушерство» та «Психологія здоров'я», до поведінки, що сприяє зміцненню здоров'я: перехресне дослідження. Джаколларі Л., Края Дж., Марку М., Фреску Е.** *Це дослідження зосереджено на оцінюванні моделей поведінки, що сприяє здоров'ю, та на тому, як навчальна програма впливає на студентів бакалаврських програм «Медсестринство» та «Акушерство», а також професійної магістерської програми «Психологія здоров'я». У дослідженні використовувався описовий кореляційний дизайн. Дані були зібрані між 15 лютого та 15 березня 2024 року у студентів бакалаврату, які навчаються за програмами «Медсестринство» та «Акушерство», а також в аспірантів, які здобувають професійний ступінь магістра за програмою «Психологія здоров'я» на факультеті природничих наук Шкодерського університету «Луїджі Гуракукі», Албанія. Дані були зібрані за допомогою онлайн-анкети, що складається з трьох розділів. Перший розділ включав соціально-демографічні змінні. Другий розділ включав анкету «Профіль здорового способу життя II» (англ. Health Promoting Lifestyle Profile II, HPLP II), розроблену Walker et al., 1995, для оцінювання поведінки, що сприяє здоров'ю. Третій розділ дослідження був зосереджений на формуванні навчальної програми та включав три запитання, розроблені для оцінювання сприйняття студентами зміцнення здоров'я в їхніх академічних програмах. Середній загальний бал за шкалою HPLP II становив 2,60±0,40, що свідчить про те, що студенти в середньому дотримувалися поведінки, що сприяє здоров'ю, від «іноді» до «часто». Серед шести підшкал найвищі середні бали мали духовний ріст (2,99±0,50) та міжособистісні стосунки (2,89±0,47), що свідчить про те, що студенти частіше дотримуються поведінки, пов'язаної з особистісним розвитком та соціальною підтримкою. Результати дослідження*

*показали, що студенти, які навчаються як за бакалаврськими програмами з медсестринства та акушерства, так і за магістерськими програмами з психології здоров'я, незважаючи на те, що вони, як вважається, володіють значним обсягом знань про поведінку, що сприяє здоров'ю, не послідовно впроваджують ці практики у своєму повсякденному житті. Враховуючи їхню роль як взірців для інших, медичні працівники несуть подвійну відповідальність за просування здорової поведінки. Цей висновок свідчить про недостатнє включення поведінки, що сприяє здоров'ю, як основної цінності, до навчальних програм бакалаврських програм з медсестринства та акушерства.*

*Implications for Knowledge Translation*
*The promotion of a healthy lifestyle among students is becoming increasingly limited.*
*The teaching load, lack of physical activity, and uncritical nutrition have a detrimental effect on the health of young people.*
*It is therefore recommended that the study programmes of nurses and midwives incorporate a greater number of topics related to the promotion of a healthy lifestyle. This would ensure that students and future health personnel have better health and are an example for others.*

It is a matter of individual choice to adopt lifestyles that are believed to maintain and promote health, and to prevent disease. These lifestyles are recognized as normal and conventional daily activities, accepted by people throughout their lives [1]. The promotion of a healthy lifestyle is a significant factor in the maintenance of good health [2-11]. Health-promoting behaviours have been shown to facilitate an increase in individuals' levels of well-being and self-actualisation [12]. Conversely, the adoption of unfavourable health practices has been demonstrated to engender heightened vulnerability and sensitivity, consequently precipitating suboptimal health outcomes [13]. It is evident that by engaging in self-directed behaviours, which are indicative of a health-promoting lifestyle, it is possible to assist in the prevention of chronic diseases [6].The promotion of health entails the encouragement of individuals to exercise control over the factors that affect their health [7]. Six dimensions of lifestyle that have been demonstrated to promote health, are as follows: spiritual growth, health responsibility, interpersonal relationships, stress management, physical activity, and nutrition [3, 6, 8, 15, 16]. The initial steps in the development of healthy lifestyle behaviours are initiated within the context of society and family, subsequently, these behaviours undergo a process of development and change in response to educational influences [17]. It is precisely during university studies that the opportunity for developing healthy lifestyle behaviour is considered to be most opportune, given the difficulty of effecting a change in lifestyle after adulthood [18]. It is evident that a significant proportion of the student body does not adhere to a healthy lifestyle, consequently, the period of university studies is regarded as a period of exposure to health-related problems [15]. It is precisely the challenges associated with the university study period that often result in the adoption of unhealthy practices, which can have a detrimental effect on the health and lifestyle of students [2, 10, 11, 13, 14]. Moreover, health students must embrace a healthy lifestyle, to serve as role models for society [2, 3, 6, 7, 8, 9, 10, 13, 15, 19]. The majority of lifestyle habits are challenging to modify due to their late onset, underscoring the necessity for the promotion of healthy behaviors within the educational framework for nursing students from the outset [8]. It is hypothesized that nursing students should possess a sufficient level of knowledge regarding the significance of health-promoting behaviors 6]. Nevertheless, concerns have been raised regarding the extent to which nurses are prepared for their role in health promotion [8]. It is imperative that nursing students recognise their responsibility to guide individuals in the adoption of health-promoting behaviours, and to integrate these behaviours into their daily lives in order to ensure optimal health [7]. As nursing students continue to develop their understanding of health promotion, it is essential that they deepen their knowledge in accordance with curriculum development [6]. It has been demonstrated that medical science students tend to have lean and moderate lifestyles that promote their health [3]. Nevertheless, many students adopt unhealthy lifestyles, even though health-promoting behaviors are known to benefit their academic performance. [20]. While the promotion of a healthy learning environment is encouraged by bodies such as the university, concrete data on student health and well-being is required to develop sustainable health promotion interventions and strategies [14]. The paucity of research in the field of nursing student health promotion is evident in the dearth of modeling studies that address the factors influencing this area [6, 7]. Despite the prevailing assumption that nursing students possess a sufficient understanding of the significance of health-promoting behaviours, this does not automatically translate into the adoption of beneficial health behaviours and habits [2]. The present study focuses on the assessment of health-promoting behaviors and the manner in which the curriculum of teaching programs affects students in the bachelor's degree programs in nursing and midwifery, as well as the professional master's degree program in Health Psychology.

**MATERIALS AND METHODS OF RESEARCH**

The data were collected between 15th of February and 15th of March, 2024 from undergraduate students enrolled in nursing and midwifery programmes, as well as postgraduate students pursuing a professional master's degree in Health Psychology at the Faculty of Natural Sciences, University of Shkodra "Luigj Gurakuqi", Shkodër, Albania. An online questionnaire, administered via the Microsoft Forms platform, was distributed to all students via their institutional email addresses.

The data were collected using an online questionnaire comprising three sections.

The first section incorporated sociodemographic variables, including age, gender, study programme, and year of study. Furthermore, participants were posed the following question: "Do you consider yourself to have a healthy lifestyle?"

The second section incorporated the Health-Promoting Lifestyle Profile II (HPLP II) questionnaire, developed by Walker et al., 1995, to assess health-promoting behaviours [21]. The original version of the HPLP II demonstrated excellent internal consistency, with a reported Cronbach's alpha of 0.94 for the overall scale and values ranging from 0.79 to 0.87 for its six subscales. In the present study, the HPLP II demonstrated high reliability, with a Cronbach's alpha of 0.935 for the overall scale, while the subscales demonstrated reliability coefficients ranging from 0.714 to 0.818. The reliability statistics for this study is presented in Table 1.

The HPLP II comprises 52 items which assess health-promoting behaviours, which are then categorised into six subscales: health responsibility (9 items), spiritual growth (9 items), physical activity (8 items), interpersonal relationships (9 items), nutrition (9 items), and stress management (8 items). A Likert-type scale was utilised to evaluate each behaviour, with response options ranging from “never” (1), “sometimes” (2), “often” (3), to “routinely: (4). The total HPLP II score ranges from 52 to 208, with higher scores indicating a greater tendency towards health-promoting behaviours. Scores indicating higher levels of health-promoting behaviours are indicative of greater frequency.

The third section of the study focused on curricular formation and included three questions designed to assess students' perceptions of health promotion in their academic programmes. 1) “Is health promotion addressed in the curriculum of your study program?” 2) “To what extent do you think your study program influences health promotion?” 3) “Do you think health promotion should be emphasised more in the curriculum of your study program?”

*Table 1*

**Reliability statistics**

| HPLP II and subscales | Cronbach's Alpha | No. of items |
|---|---|---|
| **Health responsibility** | **0.816** | **9** |
| **Physical activity** | **0.818** | **8** |
| **Nutrition** | **0.714** | **9** |
| **Spiritual growth** | **0.788** | **9** |
| **Interpersonal relations** | **0.728** | **9** |
| **Stress management** | **0.722** | **8** |
| **Health-Promoting Lifestyle Profile** | **0.935** | **52** |

Statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS), version 25.0. The analyses encompassed a range of techniques, including reliability assessment, descriptive statistics, inferential comparisons, and correlation analysis.

Reliability analysis was performed using Cronbach's alpha to evaluate the internal consistency of the Health-Promoting Lifestyle Profile II (HPLP II) and its subscales.

Descriptive statistics, including the mean, standard deviation, minimum, maximum, and range, was computed to summarize the distribution of HPLP II scores.

Inferential statistical tests were conducted to examine group differences:

- Independent samples t-tests were used to compare HPLP-II scores between gender groups. This method

was chosen based on its appropriateness for comparing means between two independent groups [22].

- One-way analysis of variance (ANOVA) was performed to assess differences in HPLP-II scores across the year of study and study program. This method allows for comparisons across more than two groups and was selected to assess variation in altruism levels across different categories [23].

Finally, Pearson correlation analysis was applied to evaluate associations between age and HPLP-II subscale scores. This method measures the strength and direction of linear relationships between two variables [24].

The level of statistical significance chosen for this study is $\alpha$=0.05. This level was selected based on standard practices in the field and to ensure robustness in the interpretation of results.

The present study has been reviewed and approved by the Ethics Committee of the Department of Preclinical Studies at the University of Shkodra "Luigj Gurakuqi", with document reference number 101/1. The document was signed on the 5th of December 2023 in Shkodra, Albania. The authors explained the study to participants, completion of the questionnaire implied consent.

**RESULTS AND DISCUSSION**

**Sociodemographic characteristics of participants**

The present study examined a total of 407 students, with a mean age of 20.5 years (±3.1 years, range: 18-43 years). However, it should be noted that only one student was 43 years old, representing the upper limit of the age range. The majority of participants were from 18 to 22 years old, with 20 years being the most common age (31%). The sample was predominantly female (91.6%). The largest group consisted of first-year students (35.4%), followed by those in their third (27.3%) and second year (22.6%). The majority of the sample was enrolled in an undergraduate Nursing programme (57.0%), while others were enrolled in a Midwifery programme (28.3%) or a professional master's programme in Health Psychology (14.7%) (Table 2).

*Table 2*

**Distribution of student's sociodemographic characteristics (N=407)**

| Characteristics | Students (n) | Students (%) |
|---|---|---|
| **Gender** | | |
| **Female** | **373** | **91.6** |
| **Male** | **34** | **8.4** |
| **Year of university study** | | |
| **First-year Bachelor students** | **144** | **35.4** |
| **Second-year Bachelor students** | **92** | **22.6** |
| **Third-year Bachelor students** | **111** | **27.3** |
| **First-year Professional Master students** | **60** | **14.7** |
| **Age** | | |
| **18 years old** | **57** | **14.0** |
| **19 years old** | **104** | **25.6** |
| **20 years old** | **126** | **31.0** |
| **21 years old** | **53** | **13.0** |
| **22 years old** | **25** | **6.1** |
| **23 years old** | **16** | **3.9** |
| **Over 23 years old** | **26** | **6.4** |
| **Study program** | | |
| **Bachelor in Nursing** | **232** | **57.0** |
| **Bachelor in Midwifery** | **115** | **28.3** |
| **Professional Master's in Health Psychology** | **60** | **14.7** |

**Engagement in health-promoting behaviors**

The mean overall Health-Promoting Lifestyle Profile II (HPLP II) score was 2.60±0.40, indicating that, on average, students follow health-promoting behaviours from "sometimes" to "often". Among the six subscales, spiritual growth (2.99±0.50) and interpersonal relations (2.89±0.47) had the highest mean scores, suggesting that students more frequently followed behaviours related to personal development and social support. Conversely, physical activity (2.27±0.58) and health responsibility (2.37±0.52) exhibited the lowest mean scores, suggesting that these behaviours were practised with less frequency. Nutrition (2.49±0.45) and stress management (2.61±0.49) demonstrated moderate adherence. The scale ranges from 1 (never) to 4 (routinely), and these results suggest that while students demonstrate relatively strong engagement in interpersonal and spiritual well-being, they are less consistent in maintaining physical activity and personal health responsibilities (Table 3).

*Table 3*

**Students HPLP II scores (N 407)**

| HPLP II and subscales | Mean | SD | Min | Max | Range |
|---|---|---|---|---|---|
| **Health responsibility** | **2.37** | **0.52** | **1.00** | **4.00** | **3.00** |
| **Physical activity** | **2.27** | **0.58** | **1.00** | **4.00** | **3.00** |
| **Nutrition** | **2.49** | **0.45** | **1.00** | **3.89** | **2.89** |
| **Spiritual growth** | **2.99** | **0.50** | **1.00** | **4.00** | **3.00** |
| **Interpersonal relations** | **2.89** | **0.47** | **1.00** | **4.00** | **3.00** |
| **Stress management** | **2.61** | **0.49** | **1.00** | **4.00** | **3.00** |
| **Health-Promoting Lifestyle Profile** | **2.60** | **0.40** | **1.00** | **3.96** | **2.96** |

**Notes.** HPLP II – Health-Promoting Lifestyle Profile-II; SD – standard deviation/

**Gender, study program, and age differences in health-promoting lifestyle behaviors**

The analysis of gender differences in health-promoting behaviours yielded several significant findings. Males demonstrated higher levels of health responsibility, physical activity, and an overall Health-Promoting Lifestyle Profile II (HPLP II) compared to females, with statistically significant differences observed in these areas. Specifically, males reported engaging in more physical activity and taking greater responsibility for their health. However, no significant differences were found between genders in nutrition, spiritual growth, interpersonal relations, or stress management, although males tended to score slightly higher in these domains (Table 4).

The findings reveal that there are no statistically significant differences among the study programmes in most of the Health Promoting Lifestyle Profile II (HPLP II) subscales, including Health Responsibility (p=0.265), Physical Activity (p=0.451), Nutrition (p=0.364), Spiritual Growth (p=0.512), Stress Management (p=0.191), and Overall HPLP II Score (p=0.389). However, a significant difference was observed in the Interpersonal Relations subscale (F=3.902, p=0.021). Nursing students reported higher scores (M=2.95) compared to Midwifery and Health Psychology students (M=2.82). While nursing students demonstrated marginally higher scores in Health Responsibility, Nutrition, Stress Management, and overall HPLP II, these disparities were not statistically significant.

The results of the analysis of variance (ANOVA) demonstrate that there are no statistically significant differences between the year of study in any of the subscales of the HPLP II.

The Pearson correlation analysis reveals statistically significant relationships between age and health-promoting lifestyle behaviours. A negative correlation was observed between age and physical activity (r= -0.121, p=0.014), spiritual growth (r= -0.111, p=0.026), stress management (r= -0.222, p=0.000), and overall health-promoting lifestyle profile (r= -0.109, p=0.028). These findings suggest that as individuals age, their engagement in these behaviours tends to decline. It is noteworthy that the strongest negative correlation was identified with stress management. Conversely, a positive correlation was identified between age and nutrition (r=0.099, p=0.047). No significant associations were identified between age and health responsibility (r= -0.077, p=0.122) or interpersonal relations (r= -0.064, p=0.199).

*Table 4*

**Distribution of Health-Promoting Lifestyle Profile (HPLP) scores by gender, study year, study program, and age (N=407)**

| Descriptive feature | Health Responsibility | Physical Activity | Nutrition | Spiritual Growth | Interpersonal Relations | Stress Management | HPLP II |
|---|---|---|---|---|---|---|---|
| **Gender** | | | | | | | |
| **Female** | **2.35** | **2.25** | **2.48** | **2.98** | **2.88** | **2.60** | **2.59** |
| **Male** | **2.57** | **2.53** | **2.63** | **3.13** | **2.94** | **2.73** | **2.76** |
| **t** | **-2.31** | **-2.75** | **-1.85** | **-1.70** | **-0.71** | **-1.55** | **-2.35** |
| **p** | **0.021*** | **0.006*** | **0.065** | **0.090** | **0.478** | **0.121** | **0.019*** |
| **Mean difference** | **-0.22** | **-0.28** | **-0.15** | **-0.15** | **-0.06** | **-0.14** | **-0.17** |
| **Year of Study** | | | | | | | |
| **First-year BA** | **2.36** | **2.26** | **2.45** | **3.01** | **2.89** | **2.65** | **2.60** |
| **Second-year BA** | **2.46** | **2.27** | **2.52** | **2.99** | **2.90** | **2.60** | **2.62** |
| **Third-year BA** | **2.33** | **2.34** | **2.49** | **2.96** | **2.92** | **2.62** | **2.61** |
| **First-year PM** | **2.31** | **2.19** | **2.57** | **2.99** | **2.82** | **2.50** | **2.56** |
| **F** | **1.350** | **0.994** | **1.078** | **0.161** | **0.627** | **1.403** | **.279** |
| **p** | **0.258** | **0.396** | **0.358** | **0.923** | **0.598** | **0.241** | **0.841** |
| **Study program** | | | | | | | |
| **BA in Nursing** | **2.41** | **2.29** | **2.48** | **3.01** | **2.95** | **2.63** | **2.63** |
| **BA in Midwifery** | **2.33** | **2.29** | **2.47** | **2.94** | **2.82** | **2.63** | **2.58** |
| **PM in Health Psychology** | **2.31** | **2.19** | **2.57** | **2.99** | **2.82** | **2.50** | **2.56** |
| **F** | **1.331** | **0.5798** | **1.013** | **0.653** | **3.902** | **1.161** | **0.947** |
| **p** | **0.265** | **0.451** | **0.364** | **0.512** | **0.021*** | **0.191** | **0.389** |
| **Age** | | | | | | | |
| **Pearson Correlation** | **-0.077** | **-0.121*** | **0.099*** | **-0.111*** | **-0.064** | **-0.222**** | **-0.109*** |
| **p** | **0.122** | **0.014** | **0.047** | **0.026** | **0.199** | **0.000** | **0.028** |

**Note.** *Correlation is significant at the 0.05 level.

**Student perceptions of health promotion in study programs: coverage and differences across programs**

The mean score for integrating health promotion into the curriculum across all study programmes was 2.80 (SD=0.79), indicating a moderate level of emphasis on this topic. According to students, health promotion is present in the curriculum, but to varying degrees (Table 5).

**Student perspectives on the influence of study programs on health promotion**

In relation to the programme's impact on health promotion, 56.8% (n=231) of respondents expressed a strong conviction of its 'significant' influence, while 22.9% (n=93) attested to its 'maximal' impact, suggesting a substantial perceived effect. This finding suggests a robust perceived influence of the program among the majority of participants. Conversely,

17.7% (n=72) of the participants indicated that the program exerted only a minimal influence, while 2.7% (n=11) stated that it had no influence at all. The mean score of 3 (on a scale of 1 to 4, where higher values indicate greater influence) and a standard deviation of 0.72 suggest that the majority of participants perceive the program as moderately to highly influential (Table 6).

*Table 5*

**Mean scores and ANOVA results for health promotion discussion in the curriculum**

| Descriptive feature | Mean | Std. Deviation |
|---|---|---|
| **All students** | **2.80** | **0.79** |
| **Study program** | | |
| **BA in Nursing** | **2.90** | **0.77** |
| **BA in Midwifery** | **2.63** | **0.85** |
| **PM in Health Psychology** | **2.73** | **0.69** |
| **F** | **4.842** | |
| **p** | **0.008** | |

Students of Nursing reported the highest perceived influence on health promotion (M=3.12, SD=0.66), compared to students in Midwifery (M=2.83, SD=0.80) and Health Psychology (M=2.85, SD=0.68). A further analysis of variance (ANOVA) revealed a statistically significant difference in the perceived influence of the programme on health promotion among the three study programmes, F (2, 404)=7.653, p=0.001. The Tukey HSD post hoc test further demonstrated statistically significant differences in the perceived influence of the programme on health promotion. Bachelor of Nursing students reported a significantly higher influence compared to both Bachelor of Midwifery students (p=0.002, MD=0.2816) and Professional Master's in Health Psychology students (p=0.026, MD=0.2664). However, no statistically significant differences were observed between the groups of Midwifery and Health Psychology students (p=0.990).

The results of the one-way analysis of variance (ANOVA) test revealed no statistically significant differences in the perceived influence of the programme on health promotion across different study years.

*Table 6*

**Mean scores and ANOVA results for the program's influence on health promotion**

| Descriptive feature | Mean | Std. Deviation |
|---|---|---|
| **All students** | **3** | **0.72** |
| **Study program** | | |
| **BA in Nursing** | **3.12** | **0.66** |
| **BA in Midwifery** | **2.83** | **0.80** |
| **PM in Health Psychology** | **2.85** | **0.68** |
| **F** | **7.653** | |
| **p** | **0.001** | |
| **Year of Study** | | |
| **F** | **2.321** | |
| **p** | **0.075** | |

**Relationship between the perception of how much a program influences health promotion and various aspects of a health-promoting lifestyle**

The analysis demonstrates statistically significant positive correlations between students' perceptions of how much their programme influences health promotion and various aspects of a health-promoting lifestyle. It is noteworthy that all correlations reached significance at the 0.01 level ($p<0.01$). Specifically, students who perceive their programme as having a greater influence on health promotion tend to exhibit a stronger sense of health responsibility ($r=0.295$), engage more in physical activity ($r=0.273$), make better nutrition choices ($r=0.226$), and participate more in activities fostering spiritual growth ($r=0.339$). Furthermore, these students are more likely to value interpersonal relations ($r=0.288$), practice effective stress management ($r=0.315$), and adopt a health-promoting lifestyle overall ($r=0.367$).

**Student demand for greater emphasis on health promotion in curricula**

It is noteworthy that a significant proportion of the participants (79.9%, n=325) expressed a strong conviction that health promotion should be accorded greater prominence in the curriculum. A mere 7.1% (n=29) expressed disagreement, while 13% (n=53) reported uncertainty.

The findings of the study demonstrate that the mean overall score of the Health-Promoting Lifestyle Profile for the three study programmes combined was 2.60±0.40, indicating that students are moderately engaged in health-promoting behaviours. This finding aligns with the results of studies conducted by Amiri et al., 2023; Fashafsheh et al., 2021; Azami Gilan et al., 2021; and Kurt, 2015. In a study conducted on Filipino nursing students, the overall mean of the HPLP II was high [4], in contrast to the results of the present study.

Looking at the six subscales of healthy lifestyles, we see that spiritual growth (2.99±0.50) and interpersonal relationships (2.89±0.47) have the highest mean scores, and physical activity (2.27±0.58) has the lowest mean scores. This suggests that students were more likely to engage in behaviours related to personal development and social support and were significantly lacking in physical activity. These data were also found in a study conducted among medical students at a Saudi university [13] and in a study conducted among Chinese nursing students [8]. A study conducted among Palestinian nursing students showed that spiritual growth had the highest mean and physical activity had the lowest subscale [15]. In a study conducted among nursing students in South Korea, interpersonal relationships had the highest mean scores and physical activity had the lowest mean scores [6]. The study by Kurt, 2015, conducted among nursing and midwifery students in Karaman, Turkey, and Baransel & Barut., 2023, conducted among midwifery students at a state university in eastern Turkey, also demonstrated that the average physical activity results are lower. As Diana et al., 2023 also demonstrate in their study, Filipino students displayed lower levels of physical activity. The phenomenon of urbanisation, coupled with enhanced accessibility to transportation networks, the decline in physical labour requirements, and the proliferation of opportunities in service and commercial sectors, have collectively resulted in a decline in levels of physical activity [9]. So, all these data tell us that physical activity among health students is poor. Until 2007, physical education was included in the curriculum of bachelor's degree programmes in nursing at the University of Shkodra. The study conducted by Wei et al., 2012 also highlights the fact that physical education has not been a mandatory course for a period of 10 years. Perhaps the possibility of introducing this in curriculum as an elective course should be considered again.

The study data demonstrate that males exhibited higher levels of health-promoting behaviours, physical activity, and a general Health-Promoting Lifestyle Profile (HPLP II).

The overall score for health-promoting behaviour is comparable to the results of the study among Palestinian nursing students [15], as well as the results obtained from Vietnamese students in Korea [25]. However, in the study by Karimian et al., 2024, the overall score of health-promoting behaviour is higher in females. In the present study, this elevated mean score in terms of health-promoting behaviour is attributable to a higher mean of physical activity in males.

In terms of physical activity, the results demonstrate that males have a higher average, which is consistent with the findings of a study conducted among nursing students in South Korea [6], as well as a study among midwifery students at a state university in eastern Turkey [12]. Furthermore, a study among medical students at a university in Saudi Arabia [13], with the results of the study conducted among students at a university in Japan [11], and with the results of the study conducted among medical science students at the University of Shiraz [2]. The prevailing social perception of physical activity as a domain reserved for the male gender is reflected in the tendency of male students to engage in sports during their leisure time, while female students are more inclined to prioritize family commitments [13]. Moreover, an analysis of cultural norms reveals that men generally have greater leisure time for sports, while women are often constrained by domestic responsibilities and academic pursuits [2].

The findings of this study suggest that gender exerts a significant influence on specific health promotion behaviours, such as physical activity and health responsibility. However, further research is required to clarify the underlying mechanisms and their implications for health promotion.

In this study, it is observed that the findings demonstrate the absence of statistically significant disparities between study programmes in the majority of subscales of the Health-Promoting Lifestyle Profile. Consequently, the present study demonstrates that there are no discernible differences between the study programs, a finding that is further substantiated by the observation that both the nursing and midwifery programs are classified within the medical technical domain. This observation is further accentuated by the finding that the master's students originate from these two programs.

Concerning the relationship between age and health-promoting lifestyle, a negative correlation is observed, indicating that as age increases, the overall health-promoting lifestyle profile diminishes. This observation aligns with the findings of Paudel et al., 2017, who reported that first-year students exhibited favourable lifestyle behaviours, while these behaviours declined with advancing age. In addition, the study by Kurt, 2015 did not observe any age-related changes. In contrast to these findings, Diana et al., 2023 and Hwang & Oh, 2020 reported that as age increases, there is a concomitant rise in health promotion practices. These observations are supported by the acquisition of valuable information concerning health-promoting behaviours. Conversely, the study by Anh et al., 2021 on Vietnamese students in Korea found that younger students exhibited a more sedentary lifestyle, which was attributed to their adapting to and acquiring new knowledge about different cultures. The present study posits that the observed outcomes are attributable to the increased teaching obligations, concurrent employment, and the proliferation of technological devices.

**Limitations of the study**

This study is subject to several limitations that must be considered when interpreting the results. Firstly, the data are self-reported, which may introduce subjective bias or lead to over- or underestimation of health-promoting behaviours. Secondly, the female/male ratio was 91.6% female and 8.4% male. While this ratio appears to be significantly different, statistical analysis reveals that this ratio remains consistent across all countries [26]. Notably, the midwifery programme is predominantly attended by female students, which further corroborates the observed gender disparity. The study is also limited to a single university, which affects the generalizability of the findings to other nursing, midwifery, and health psychology students in different academic and cultural contexts. To achieve a more profound comprehension of the relationships explored in this study, future research should employ longitudinal designs and include a more diverse sample.

**CONCLUSIONS**

1. This study explores students' attitudes towards health-promoting behaviours in the context of bachelor's degree programmes in Nursing and Midwifery in Albania. The findings of the study indicated that students enrolled in both bachelor's degree programmes in Nursing and Midwifery and master's degree programmes in Health Psychology, despite being presumed to possess a substantial body of knowledge on health-promoting behaviours, do not consistently implement these practices in their daily lives.
2. Given their role as role models for others, health personnel have a dual responsibility for the promotion of healthy behaviours.
3. The study revealed a decline in healthy behaviours with increasing age, underscoring the importance of early education in promoting such behaviours. This finding suggests a deficiency in the incorporation of health-promoting behaviours as a core value within the curricula of bachelor's degree programmes in nursing and midwifery. This observation was further corroborated during the course curriculum review.
4. The study group also noted the lack of inclusion of health-promoting behaviours among students in the respective study programs' curricula.

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