



Health Promoting Lifestyle Behaviors and Associated Factors among Sohag University Students

Rahma Ibrahim Mahmoud, Fouad M.A. Yousef,
Rasha Abd elhameed Ali,

Department of Public Health and Community Medicine, Sohag University, Egypt

Abstract

Background: A healthy lifestyle and health-promoting activities should be considered a primary strategy for facilitating and preserving health. A cross sectional study was conducted among 410 Sohag university students of the academic year (2022-2023).

Objectives: The aims of the current study were to assess health-promoting lifestyle behaviors among Sohag university students and to identify socio-demographic determinants of the health-promoting lifestyle behaviors.

Methods: A cross sectional study was conducted among 410 randomly selected students of faculty of Science, Nursing, Education and Arts, Sohag University, Egypt during the academic year (2022-2023). A self-administered questionnaire was used for collecting data about socio-demographic characteristics and Health Promoting Lifestyle Profile II (HPLP II)

Results: The mean score of the health-promoting lifestyle profile of the studied students was (132.86 ± 20.41) , the nutrition domain had the highest mean score, followed by that of the spiritual growth domain (25.75 ± 4.95) and (24.93 ± 5.46) , respectively. It was lower for interpersonal relationships and health responsibility domains (24.1 ± 4.62) and (22.16 ± 4.81) , respectively. The lowest mean scores were for the stress management and physical activity domains (20.5 ± 4.28) and (18.57 ± 4.73) , respectively. The highest percentage of the studied students had a good score at HPLP II, followed by a moderate score (45.9% and 40.9%) respectively. Minority of the studied students had poor scores (1.3%).

Conclusion: The mean score of HPLP II of the studied students considered at good level and the nutrition domain had the highest mean score while the physical activity domain had the lowest mean score. 45.9% of the students had a good score at HPLP II.

Keywords : Health promoting behaviors, Health promoting lifestyle, Health promoting lifestyle profile, university student

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*Correspondence : rahma23493@gmail.com

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Introduction

Health is a fundamental human right. To improve the concept of health, each individual in society must take responsibility and incorporate the healthy life model into their daily routine.⁽¹⁾ A healthy lifestyle and health-promoting activities should be considered a primary strategy for facilitating and

preserving health. One of the most essential elements of health promotion is lifestyle, can be affected by cultural, economic, political, and religious influences. Lifestyle includes day-to-day behaviors and functions of individuals in job, activities, fun, and diet. According to WHO, 60% of related factors

to individual health and quality of life are correlated to lifestyle.⁽²⁾ The new health paradigm asserts that health is the responsibility of all persons and society, because the determinants of health are determined by a variety of factors, including personal and environmental ones.⁽³⁾ Health responsibility, physical activity, nutrition, spiritual growth, interpersonal relationships, and stress management are all parameters of health-promoting behaviours and these behaviours also serve as markers of a person's healthy lifestyle. Reduced physical activity and unhealthy eating habits lead to an increase in obesity among young people in many nations, and this is often a risk factor for health if these habits continue into adulthood.⁽⁴⁾ Healthy lifestyles, such as appropriate diet, physical activity, and the acquisition of good habits, contribute to the preservation of the human-environment balance and the prevention of Non-communicable diseases (NCDs)⁽⁵⁾. Reducing health risks and enhancing health will result in increased longevity, higher quality of life, and lower health-care expenses.⁽⁶⁾ Millions of people have unhealthy lives. Hence, individuals suffer from illness, incapacity, and even death. An unhealthy lifestyle can lead to difficulties such as metabolic disorders, joint and bone problems, cardio-vascular diseases, hypertension, obesity, violence, and so on. The relation between lifestyle and health should be carefully considered⁽²⁾ Globally, NCDs are the primary cause of premature death and chronic disability, accounting for over 70% of deaths globally.⁽⁷⁾ NCDs are the current main cause of death in Egypt, accounting for an estimated 85% of all deaths.⁽⁸⁾ The most common NCDs include cardiovascular diseases, malignancies, diabetes, and chronic respiratory diseases. Unhealthy food, physical inactivity, cigarette and alcohol use, and exposure to environmental contaminants are all common modifiable risk factors for NCDs.⁽⁹⁾ University students are in a dynamic stage of growth and development that encompasses adolescent (high school students) and adulthood (community members). This time period is marked by many fast changes in the body and mind, as well as in interpersonal relationships.⁽¹⁰⁾ At this stage, there are a variety of difficult life events and lifestyles in the academic setting. Many students participate in a variety of unhealthy habits as a result of changes in study style and unfamiliar

life circumstances, such as inadequate food intake, rest, and exercise.⁽¹⁰⁾ The current study aimed to assess health-promoting lifestyle behaviors among Sohag university students and to identify socio-demographic determinants of the health-promoting lifestyle behaviors.

Methods

A cross sectional study was conducted in the Faculty of Science, Faculty of Nursing, Faculty of Education and Faculty of Arts, Sohag university, Egypt during the academic year (2022-2023). The sample size was calculated according to the equation: $N = z^2 p (1 - p) / d^2$ ⁽¹¹⁾, The sample size was calculated by the equation included 365 students, and it was increased to 410 to compensate for non-responses and incomplete forms. The studied students from the four academic grades were selected by stratified random sampling technique. Students from each grade were selected using simple random sampling technique after fulfilling the eligibility criteria, inclusion criteria: Students who accepted to participate in the study and exclusion criteria: Students who refused to participate in the study.

Data was collected from Sohag University students through personal interviews using a self-administered questionnaire. The questionnaire consisted of two tools: **Tool I:** Socio-demographic character, it consisted of three sections. **Section one:** Socio-demographic profile of the studied students included (age, sex, marital status, field of study, grade of university, place of residence and the current living). **Section two:** physical assessment of the studied students included height and weight. The height of the students was measured by a tape measure in meters while their back, shoulders, hips, and back of legs touched the wall. In addition, weight was measured by a standard scale in kilograms. Finally, BMI was calculated by dividing weight (kg) by the squared height (m) and classified as underweight below 18.5, normal weight (18.5-24.9), overweight (25-29.9) and obese 30 and more.⁽¹²⁾ **Section three:** current lifestyle of students included regularity of checkup and their perception of health situation.

Tool II: Health Promoting Lifestyle Profile II (HPLP II): This standardized questionnaire was developed by Walker and his colleges in 1987. ⁽¹³⁾ The validated Arabic version was established by a previous study conducted in Jordan was used in this study ^(14, 15). The HPLP II tool consists of 52 health-promoting behavior items that are categorized into six domains (Health responsibility, physical activity, nutrition, spiritual growth, interpersonal relationships and stress management). The questions were re-arranged by the investigator and put into six groups as each group represented domain to facilitate answering questions and avoid students' distraction. A Likert-type scale was used to measure each behavior, with ranges of never (1), sometimes (2), frequently (3), and routinely (4). The total score of the HPLP II ranges from 52 to 208 and is measured by the mean score of the responses to all 52 HPLP items. The total HPLP II score is further classified into four levels: poor for the range (52–90), moderate for the range (91–129), good for the range (130–168), and excellent for the range (169–208).⁽¹⁶⁾

Statistical analysis

Statistical package of Social science (SPSS) version 25.0 was used for data entry and analysis.

Quantitative variables were expressed as means and standard deviation for normally distributed data and as median and range (minimum – maximum) for not normally distributed data. The normality of data distribution was tested using Kolmogrov-Sminrov test. **Qualitative variables** were described as frequencies (percentages). **Chi-square test** was used to compare between groups of qualitative data in testing relation between grades of HPLP II score and socio-demographic data (P value was significant if ≤ 0.05). **Regression analyses** were conducted to evaluate the relationship between grades of HPLP II score and socio-demographic variables that were found to be associated in the univariate analyses. Adjusted P-value <0.05 was considered to be statistically significant.

Ethical considerations

Approval of the Ethical committee of faculty of Medicine, Sohag University was obtained and permissions were obtained from the university's president, faculties' deans, the university security director, the responsible administrative authorities in the selected faculties. In addition, an informed written consent was obtained from each students after explaining the aim of the study with preservation of their privacy as the questionnaire was anonymous.

Results

Table (1): Socio-demographic characteristics of the studied university students

Variable	Summary statistics (n=410)		
	No.	%	
Age (yrs)	≤20	214	52.2
	>20	196	47.8
	Mean± S.D	20.26± 1.38	
	Median	20	
	Range	(17-24)	
Gender	Male	221	53.9
	Female	189	46.1
Marital status	Single	396	96.6
	Married	14	3.4
Field of study	Faculty of Science	100	24.4
	Faculty of Nursing	100	24.4
	Faculty of Education	105	25.6
	Faculty of Arts	105	25.6
Grade of university	First grade	101	24.6
	Second grade	103	25.1
	Third grade	106	25.9
	Fourth grade	100	24.4
Residence	Urban	214	52.2
	Rural	196	47.8
Living	With family	308	75.1
	With friends	74	18
	With relatives	19	4.6
	Alone	9	2.3

Table (2) Physical assessment and current lifestyle of the studied university students

Variables		Summary statistics (n=410)	
		No.	%
Height	150 - <165	169	41.2
	165 - <180	207	50.5
	180 - 195	34	8.3
	Mean ± S.D	166.96 ± 7.84	
	Median (Range)	165 (150-195)	
Weight	50 - <70	200	48.8
	70 - <90	196	47.8
	90 - 110	14	3.4
	Mean ± S.D	69.5± 11.53	
	Median (Range)	70 (50 – 110)	
BMI	Under weight	11	2.7
	Normal weight	204	49.8
	Over weight	146	35.5
	Obese	49	12
	Mean ± S.D	24.97 ± 4.05	
	Median (Range)	24.7(12.43 – 42.42)	
Regular check up	Yes	61	14.9
	No	349	85.1
Perception of health situation	Bad	19	4.6
	Moderate	143	34.9
	Good	182	44.4
	Very good	66	16.1

Table (3): Distribution of the studied university students' HPLP II Domains score

HPLP II domains	Summary statistics (n=410)			
	Mean ± S.D	Median	Minimum	Maximum
Health responsibility	22.16 ± 4.81	22	10	35
Physical activity	18.57 ± 4.73	19	8	31
Nutrition	25.75 ± 4.95	26	11	36
Spiritual growth	24.93 ± 5.46	25	9	36
Interpersonal relationships	24.1 ± 4.62	23	12	36
Stress management	20.5 ± 4.28	20	9	31
Total HPLP II	132.86 ± 20.41	131.5	78	187

Table (4) Distribution of grades of HPLP II score the studied university students

Grade	Summary statistics (n=410)	
	No.	%
Poor (52-90)	6	1.3
Moderate (91-129)	182	40.5
Good (130-168)	206	45.9
Excellent (169-208)	16	3.6

Table (5): Relation between grades of HPLP II score and socio-demographic characteristics of the studied university students

Variable		Grades of HPLP II score		P-value*
		Poor to Moderate (52-129) (n=188) (41.8%)	Good to Excellent (130-208) (n=222) (49.5)	
		No. (%)	No. (%)	
Age	≤20	100(46.7%)	114 (53.3%)	0.71
	>20	88(44.9%)	108 (55.1%)	
Gender	Male	94(42.5%)	127 (57.5%)	0.14
	Female	94(49.7%)	95 (50.3%)	
Marital status	Single	180(45.5%)	216 (54.5%)	0.38
	Married	8 (57.1%)	6 (42.9%)	
Field of study	Faculty of Science	47 (47%)	53 (53%)	<0.0001
	Faculty of Nursing	31 (31%)	69 (69%)	
	Faculty of Education	45 (42.9%)	60 (57.1%)	
	Faculty of Arts	65 (61.9%)	40 (38.1%)	
Grade of university	First grade	53 (52.5%)	48 (47.5%)	0.004
	Second grade	32 (31.1%)	71 (68.9%)	
	Third grade	49 (46.2%)	57 (53.8%)	
	Fourth grade	54 (54%)	46 (46%)	
Residence	Urban	96(44.9%)	118 (55.1%)	0.67
	Rural	92 (46.9%)	104 (53.1%)	
Current Living	With family	148(48.1%)	160 (51.9%)	0.22
	With friends	26 (35.1%)	48 (64.9%)	
	With relatives	9 (47.4%)	10 (52.6%)	
	Alone	5 (55.6%)	4 (44.4%)	

*P-value is calculated by Chi-Square Test

Table (6): Relation between grades of HPLP II score and physical assessment and current Lifestyle of the studied university students.

Variable		Grades of HPLP II score		P-value*
		Poor to Moderate (52-129) (n=188) (41.8%)	Good to Excellent (130-208) (n=222) (49.5)	
		No. (%)	No. (%)	
Height	150 - <165	75 (44.4%)	94 (55.6%)	0.82
	165 - <180	98 (47.3%)	109(52.7%)	
	180 - 195	15 (44.1%)	19 (55.9%)	
Weight	50 - <70	101 (50.5%)	99 (49.5%)	0.04
	70 - <90	84 (42.9%)	112 (57.1%)	
	90 - 110	3 (21.4%)	11 (78.6%)	
BMI	Underweight	101 (49.5%)	103 (50.5%)	0.4
	Normal	21 (42.9%)	28 (57.1%)	
	Over weight	60 (41.1%)	86 (58.9%)	
	Obese	6 (54.5%)	5 (45.5%)	
Regular check	Yes	19 (31.1%)	42 (68.9%)	0.01
	No	180 (51.6%)	169 (48.4%)	
Perception of health situation	Bad	14 (73.7%)	5 (26.3%)	0.06
	Moderate	68 (47.6%)	75 (52.4%)	
	Good	76 (41.8%)	106 (58.2%)	
	Very good	30 (45.5%)	36 (54.5%)	

*P-value is calculated by Chi-Square Test

Table (7) Final model of logistic regression

Independent item	Reference group	OR	95% CI		P-value
			Lower	Upper	
Field of study	Faculty of Science	0.51	0.27	0.97	0.42
Faculty of Nursing		0.87	0.48	1.56	0.64
Faculty of Education		1.94	1.1	3.51	0.02
Faculty of Arts					
Grade of university	First grade	0.33	0.18	0.62	<0.0001
Second grade		0.68	0.37	1.23	0.2
Third grade		0.93	0.51	1.69	0.83
Fourth grade					
Weight	50 - <70	1.03	0.64	1.65	0.88
70 - <90		0.02	0.04	0.82	0.02
90 – 110					
Regular check-up	No				
Yes		0.46	0.24	0.88	0.02

Table 1 describes the socio-demographic characteristics of the studied university students. The mean age of the studied students was (20.26 ± 1.38) years, with a range of (17–24) years. More than half of the studied students were either twenty years old or younger (52.2%). More than half of them (53.9%) were male. Majority of the students studied were single (96.6%). As regards faculties, the studied students were from the faculties of Science, Nursing, Education, and Arts (24.4%, 24.4%, 25.6%, and 25.6%, respectively). Regarding grade of university, they were from first to fourth grades (24.6%, 25.1%, 25.9%, and 24.4%, respectively). More than half of the studied students were from urban areas (52.2%). On the other hand, about three quarters of them live with their families during studying (75.1%), nearly one fifth of them live with their friends (18%), and the remaining either live with their relatives or alone (4.6%, 2.3%), respectively. Table 2 shows the Physical assessment and current lifestyle of the studied university students. The mean height of the studied university students was (166.96 ± 7.84) cm, with a range of (150–195) cm. About half of the studied students' height ranged between (165 - <180) cm and only (8.3%) of the studied students' height ranged between (180-195) cm. As regards the studied students' weight, the mean was (69.5±11.53) kg with a range of (50–110) kg. Majority of the studied students' weight ranged (50-90) kg, they were divided into two groups that ranged between (50-<70) kg and between (70-<90) kg and the percentage of the students were (48.8% and 47.8%) respectively. Moreover, the calculation of body

mass index (BMI) reveals nearly half of the studied students were of normal weight (49.8%). More than one third of the studied students were of overweight (35.5%) and about (12%) of the studied students were obese. The mean BMI of the studied students was (24.97 ± 4.05) kg/m². As regards regularity of checkup and history of chronic disease among the studied students, minority of the studied students checked regularly and had a history of chronic disease (14.9% and 7.1%) respectively. About two-fifths of the students studied had a good perception of their health situation compared to minority of the studied students had a bad perception of their health situation (44.4% and 4.6%) respectively. Table 3 describes the distribution of the studied university students' HPLP II Domains score. The mean score of the health-promoting lifestyle profile of the studied students was (132.86 ± 20.41), with a range of (78–187). As regards the domains of the health-promoting lifestyle profile, the nutrition domain had the highest mean score, followed by that of the spiritual growth domain (25.75 ± 4.95 and 24.93 ± 5.46), respectively. It was lower for interpersonal relationships and health responsibility domains (24.1 ± 4.62 and 22.16 ± 4.81), respectively. The lowest mean scores were for the stress management and physical activity domains (20.5 ± 4.28 and 18.57 ± 4.73), respectively. Table 4 shows the distribution of grades of HPLP II score the studied university students. The highest percentage of the studied students had a good score at HPLP II, followed by a moderate score (45.9% and 40.9%) respectively. Minority of the studied students had poor scores (1.3%).

Table (5) shows the relation between grades of HPLP II score and socio-demographic characteristics of the studied university students. There was no statistically significant difference between grades of HPLP II scores of the studied students as regards age groups, gender, marital status, residence, or current living (P-value >0.05). There was a highly statistically significant difference between grades of HPLP II score of the studied students and their field of study (P-value <0.05). As regards field of study, percentage of the studied students at faculty of Science, faculty of Nursing and faculty of Education who had good to excellent score was (53%, 69% and 57.1%) respectively in comparable to (38.1%) of students at faculty of Arts. There was statistically significant difference between grades of HPLP II score of the studied students and grade of university (P-value <0.05). More than half of students at first and fourth grades had poor to moderate score (52.5% and 54%) in comparison to (31.1% and 46.2%) of students at second and third grade (68.9% and 53.8%) respectively.

Table (6) illustrates the relation between grades of HPLP II score and physical assessment and current lifestyle of the studied university students. There was statistically significant difference between grades of HPLP II score according to weight of the studied students (P-value < 0.05). Among students whose weight was (50 - <70) kg, 49.5% of them got good to excellent score in comparison to (57.1% and 78.6%) of students whose weight either (70 - <90) kg or (90-110) kg. There was a statistically insignificant difference between grades of HPLP II score as regards height, and body mass index (P-value >0.05). There was a statistically significant relationship between grades of HPLP II scores and regular checkup (P-value < 0.05). More than two-thirds of the studied students (68.9%) who checked regularly had a good to excellent score, compared to (48.4%) of students who reported that they didn't check regularly. There was statistically insignificant difference between grades of HPLP II score and physical activity as well as perception of health situation (P-value >0.05).

Table (7) shows the final model of logistic regression. There was significant association between

studying at faculty of arts and being at second year and grades of HPLP score of the studied university students with odds ratio (1.94) and (0.33) respectively. Also, there was significant association between weight (90-110) kg and regular checkup and grades of HPLP score of the studied university students with odds ratio (0.02 and 0.46). In addition to presence of significant association between moderate, good and very good grades of perception of health situation and grades of HPLP score of the studied university students with odd ratio (0.22, 0.19 and 0.19) respectively (P-value <0.05).

Discussion

Health maintenance and promotion are the fundamental prerequisites to community development. A healthy lifestyle can lead to better health and happiness, whereas an unhealthy lifestyle can lead to illness and morbidity.⁽¹⁷⁾

University study brings many new challenges for emerging adults, such as organizing one's daily life, studies, and social environment, as well as accepting responsibility for one's own health during a time when one is often thought to be in good to very good health.⁽¹⁸⁾

As illustrated by the current study the mean score of HPLP was (132.86 ±20.41) which is considered good score. This is in agreement with a cross sectional study that was done by Fashafsheh et al. and revealed that the mean score of total HPLP was (138.57±22.4) which is considered good score⁽¹⁶⁾. Our results are in line with a cross-sectional study that was performed by Borle et al. and indicated that the mean score of HPLP II was (62.27±9.66) that considered good score according to scoring system was established by the authors.⁽¹⁹⁾ Our findings weren't in line with a study that was conducted by Abdou and Helal who reported that the mean score of total HPLP was (124.07±17.48) which is considered moderate score.⁽²⁰⁾ The results of the current study aren't in line with study that was conducted by Alzahrani et al and showed that the mean score of HPLP was (123.8± 19.8) that is considered moderate score.⁽²¹⁾ Students in our study showed higher score of total HPLP than the above mentioned studies which indicated the situation in Sohag University is better than those universities. This could be explained by students of the current

study had high score at nutrition and spiritual domains which is attributed to many causes. High score at nutrition could be explained by the fact that Sohag government is a rural country and its land is fertile for agriculture, so its residents care about eating agricultural crops, vegetables and fruits more than their interest in fast and unhealthy food. ⁽²²⁾ High grade score of spiritual growth domain could be explained by the implication of religion on values and beliefs, daily practices and The Egyptian people are known for their religiosity and their adherence to the teachings of religion. Comparing of students score in different domains showed that the score of nutrition domain had the highest mean, followed by score of the spiritual growth domain. It was lower for score of interpersonal relationships and health responsibility domains. However, the lowest mean score were for the stress management and physical activity domains. Low score of health responsibility can be explained by individuals at that age are generally of good health and may not perceive it to be necessary to pay much attention to health responsibility. The lowest score of stress management could be explained by university life adds more stress and requires more independent decisions making by young people. They are also challenged to attain the personal growth and perseverance necessary to cope with life stress and to establish healthy lifestyle. The lowest score of physical activity was attributed to presence of excess exams and university duties load that made students very busy and had no time for physical activity as well as, the cultural and social context as regular exercise habits are not integrated in the daily living life of the Egyptian people and sports to some extent still considered as leisure activity. This is in line with a study that was conducted by Gamaleldin et al. who revealed that the lowest mean scores was for the physical activity domain but our results are inconsistent with results of this study which revealed that interpersonal ship domain had the highest score. ⁽²³⁾ Also, our findings as regards the lowest score was for physical activity domain is in agreement with many studies have been conducted but our findings aren't in line with the findings of studies as regards that the spiritual growth had the highest score. ^(15, 16, 21, 24-28)

As regards regression analysis, there was significant association between studying at faculty of arts, being at second year, weight (90-110) kg and regular checkup and moderate, good and very good grades of perception of health situation and grades of HPLP score of the studied university students. Our findings indicated that there was statistically significant difference between grades of HPLP II score of the studied students according to grade of university. This resembles the findings of a study conducted by Abozeid et al who reported that there was statistically significant difference between grades of HPLP score and grade of university ⁽²⁹⁾. However, our results were congruent to a studies done by Abdou and Helal and Fashafsheh et al which revealed that there was statistically insignificant difference between mean score of HPLP and grade of university. ⁽²⁰⁾ As regards the relation between grades of HPLP score and field of study, the current study showed that there was a highly statistically significant difference between grades of HPLP II score of the studied students and their field of study. This in line with a study conducted by Lolokote , Alzahrani et al and Musić et al. ^(21, 30, 31). As regards relation between grades of HPLP and weight of the studied students, there was statistically significant difference between grades of HPLP score according to weight of the studied students. However, weight of students is one of the predictor of grades of HPLP score, the published studied described physical assessment of students by calculation of BMI and described the relation of HPLP score and BMI. Our study revealed that there was statistically insignificant difference between grades of HPLPII according to BMI classification. In agreement with a study conducted by Abozeid et al there was highly significant statistically significant between BMI and grades of HPLP score. ⁽²⁹⁾ As regard students' perception of health situation, our study indicated that there was statistically difference between the studied students' perception of health situation and mean score of the health responsibility, the physical activity, spiritual growth, stress management and total HPLP II.

Strengths of the study: The validated Arabic version of HPLP was used in this study which has

the Cronbach's alpha coefficient (0.92) for the total scale and ranged from (0.65 to 0.83) for the subscales⁽¹⁵⁾. The study was carried out on randomly selected four faculties which include two practical and two theoretical faculties and included students at all grades so the results can be generalized on Sohag university students.

Constrains and limitations of the study: Some students were uncooperative because they were afraid that their answers may harm their academic achievement. This was overcome by explaining the purpose of the study and proving the identity of the researchers. Some students were afraid of not having the privacy of their identity.

This was overcome by making personal data such as the student's name optional and ensuring the confidentiality of the data. Some students were uncooperative because they didn't realize the importance of scientific research and they did not get a financial benefit in return for that. This was overcome by explaining the purpose of scientific research and the benefit to society as a whole. Some students were afraid of reporting that they were smokers for fear of telling their parents. This was overcome by explaining the importance of knowing the prevalence of smoking and that the accuracy of their answers will negatively affect the quality of this research.

Conclusion:

The mean score of HPLP was (132.86 ±20.41) which is considered good score. As regard grades of HPLP score, only (3.6%) of students had excellent score, majority of students scored either good or moderate score (45.9% and 40.5%) respectively and (1.3%) of students had poor score. Comparing of students score in different domains showed that the score of nutrition domain had the highest mean, followed by score of the spiritual growth domain. It was lower for score of interpersonal relationships and health responsibility domains. However, the lowest mean score were for the stress management and physical activity domains. According to predictors of grades of HPLP score, there was significant association between studying at faculty of arts, being at second year, weight (90-110) kg, regular checkup and moderate, good and very good

grades of perception of health situation with grades of HPLP score of the studied university students.

Recommendations: Based on the results of the current study, it is recommended that: Health promotion and improvement courses must be incorporated in all academic departments' curriculum, At regular intervals, educational programmes and workshops on health-promoting behaviours should be held for university students, Health promotion strategy to encourage students to engage in regular physical activity, proper nutrition, and stress management, The university should develop a positive environment that encourages, supports, and reinforces the adoption of healthy related behaviours, such as healthy dietary programmes, healthy food choices in faculty campus, sport facilities to ensure a high level of physical activity, more flexible schedule and apply a faculty tobacco-free policy. Establishment of a youth care committee to assist and advise students who have endured stress during their studies. Increase the awareness of parents regarding health risk-taking behaviours and the importance of health-promoting behaviours during the university period through mass media, Modify the overloaded curriculum and ensure commitment to the intended learning objectives (ILOs) that aid in learning outcome achievement. Conduct regular screening programmes among university students to discover probable mental health disorders or chronic diseases early in order to lower the risk of mental health disorders and chronic diseases and treat them most effectively.

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