Research Article

Health promoting lifestyle profile and its determinants among faculty members of Basic Health Sciences in Services Institute of Medical Sciences, Lahore

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Introduction

Everyone has the right to prioritize their own health. The process of empowering individuals to take charge of their health and make positive changes to it is known as health promotion [1]. According to the World Health Organization, a healthy lifestyle is one in which one takes measures to lower one's probability of developing a major illness or dying at an early age [2]. In developing countries, non-communicable diseases are the primary reason for hospitalization and death.

Sixty percent of the risk of developing noncommunicable diseases and their associated mortality rates can be attributed to factors related to one's behaviour and lifestyle, according to the World Health Organization (WHO) [3]. A healthy lifestyle has been shown to significantly improve health outcomes [4]. Intensified rates of obesity, hypertension, cardiovascular disease, and cancer are just some of the health issues that have been linked to changes in lifestyle [5]. A person's lifestyle is made up of the things they do on a regular basis, which can have lasting effects on their physical and mental health if they continue doing them regularly [6].

A healthy lifestyle includes things like not smoking or drinking alcohol, eating nutritious foods, getting plenty of sleep and exercise, and maintaining a healthy weight. An unhealthy lifestyle is a major factor in the onset of chronic diseases and an increased probability of dying at an early age [7,8]. Behavioral risk factors such as smoking, poor nutrition, and physical inactivity were estimated to increase the risk of chronic, non-communicable diseases that collectively accounted for an estimated 71% of all deaths worldwide in 2016 [9].

Many non-communicable diseases are avoidable or even preventable if one takes steps to reduce their risk factors, such as smoking, obesity, and not getting enough exercise [10]. Poor diet and the accompanying obesity as well as lack of exercise and excessive sedentary lifestyle, are all habits that are highly likely to be carried over into one's adult years [11,12]. While maintaining a healthy lifestyle is crucial at any stage of life, it is especially crucial in the formative years of childhood and adolescence [13,14].

Many negative health outcomes, including heart disease, insomnia, depression, and anxiety, have been linked to working in stressful jobs. All aspects of lifestyle had a negative relationship with occupational stress symptoms, suggesting a link between the symptoms of the research units and the low quality of life-promoting behaviours. Exposure to disease, suffering, and death on a regular basis, along with a demanding workload and a dearth of social support, contribute to this stress. In a dynamic and competitive medical field, all of these factors contribute to the deterioration of doctors' physical and mental well-being [15,16]. If a doctor's health starts to fail, it could have an impact on not only their own quality of life, but also on the health of their patients. The fear is that this will lead to a decrease in both the quality and quantity of health care services available to the public.

Experts in health and preventative medicine place a premium on people being cognizant of their own lifestyles and how they evolve over time [17]. Several factors contribute to an individual's HPL profile, including their health, happiness, and self-actualization [18]. The HPLP-II consists of six subcomponents: mental and emotional growth, physical activity, healthy eating, managing stress, and developing positive relationships with others [19]. In such situations, the Health-Promoting Lifestyle Profile II (HPLP II) questionnaire, created by Walker et al. [20], is one of the most common research instruments used. Despite the importance of this issue, relatively few studies have looked into the Health Promoting

Lifestyle Profile (HPLP) among medical students and health care providers. What's more, there is a dearth of relevant literature coming from Asian countries for this specific group. Therefore, the goals of this study were to (1) assess the HPLP across all six dimensions among faculty members at the Basic Sciences of Services Institute of Medical Sciences, Lahore; and (2) examine the influence of potential sociodemographic determinants on the HPLP.

Materials and Methods
It was Descriptive cross-sectional study which was conducted among faculty members of Services Institute of Medical Sciences, Lahore during May 2022 August 2022. Non-probability convenient sampling technique was employed as all permanent (111) faculty members of basic health sciences were included and 102 responded.

Informed consent was obtained from each participant. The study questionnaire consisted of three parts. The first part included sociodemographic questions (age, gender, weight, height and department). Body mass index (BMI) was calculated using the equation of body weight divided by the square of the participant's height (kg/m2). The second part of the questionnaire consisted of the HPLP II questionnaire developed by Walker et al. [20]. The HPLP II tool consisted of 52 health-promoting behavior items that are categorized into six subscales: health responsibility (nine items), nutrition (nine items), physical activity (eight items), interpersonal relationships (nine items), spiritual growth (nine items), and stress management (eight items). A Likert-type scale was used to measure each behavior, with ranges of never (1), sometimes (2), often (3), and routinely (4). The third part consisted of questions related of current health status. It consisted of five questions to access the prevalence with treatment, if any, for asthma, COPD, hypertension, diabetes and cancers.

The total score of the questionnaire (HPLP II) ranged from 52 to 208 and was measured by the mean score of the responses to all 52 HPLP items. The total HPLP II score was 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. High scores in every subscale mean more frequent health-promoting behaviors. The questionnaires were distributed and collected individually.

The collected data was cleaned, edited, and coded before analysis. After evaluating the original data using questionnaire code numbers, mistakes were corrected. Data obtained was entered and analyzed using statistical package for social sciences (SPSS) version 24. For quantitative variables mean and standard deviations were calculated. For qualitative variables frequency and percentages were calculated.

A composite score for HPLP was obtained as well as individual subscales scores. Data was analyzed using pearson correlation and predictors were determined by multiple linear regression analysis. We considered the data to be significant when P value was less than 0.05.

Results
The mean age of the faculty members was 40.89±9.70 years and the range were 26-62 years. The mean weight was 72.23±14.30 kg with a range of 45-110 kg. The mean BMI of the faculty was 26.32±4.71 kg/m2. The range of BMI was 13.03-37.92 kg/m2.

2.9% of faculty members were underweight, 40.2% had normal BMI,36.3% were overweight and 20.65% fell in obese range Figure 1.
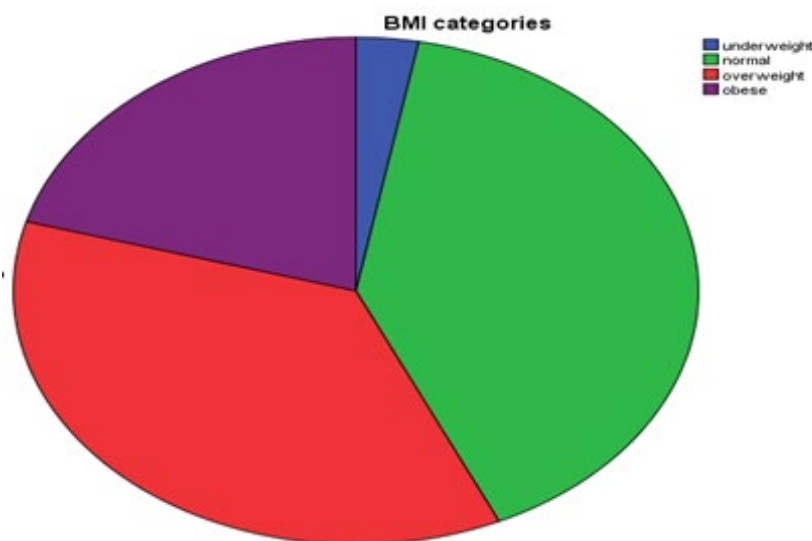

**Figure 1:** BMI among Faculty members.

Among the subscales of HPLPII, the highest mean score was of interpersonal relationship which was 27.94±5.36 having range of 12-36 and lowest mean score was of physical activity having mean of 16.88±5.95 and its range was 8-32. Health responsibility had a mean score of 20.16±4.65 (range:10-34), nutrition had a mean of 22.42±4.93 (range:9-35), spiritual growth was having 27.75±5.39 mean score (range:14-36) and stress management showed mean score of 21.87±5.70 having range 8-32 Table 1.

Table 1: Stress management among the subscales of HPLPII.

	Minimum	Maximum	Mean	Std.Deviation
Health responsibility score of respondent	10	34	20.16	4.654
Nutrition score of respondent	9	35	22.42	4.934
Physicalactivity score of respondent	8	32	16.88	5.952
Interpersonalrelationship score of respondent	12	36	27.94	5.358
Spirtualgrowth score of respondent	14	36	27.75	5.387
Stress management score of respondent	8	32	21.87	5.695
Health Promoting Lifestyle Profile II of respondent	58	191	137.02	24.877

Mean Health Promoting Lifestyle Profile II (HPLPII) score of the faculty members was 137.02±24.877 (range:68-191). 2.9% of faculty showed poor HPLPII score, 33.3% showed moderate score,52.9% had good scores and 10.8%had excellent HPLPII scores Figure 2.
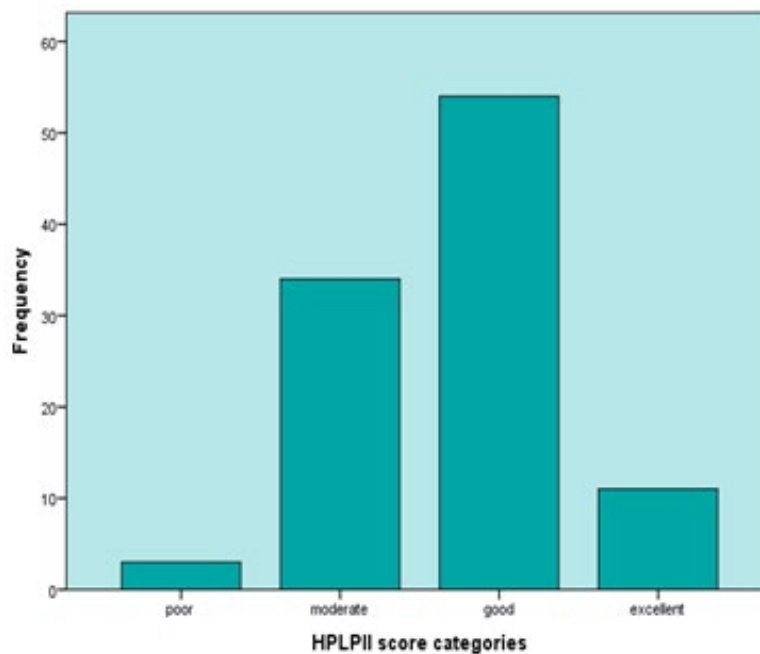
Figure 2: HPLPII score.

Gender showed significant correlations with weight and height but not with the BMI. Height was having a significant correlation with health responsibility and physical activity. HPLPII and its subscales differed by department. In health responsibility questions, most faculty members read or watch TV programs about improving health (having sum of 261) and the least of them reported any unusual sign and symptom to a physician (sum=198). Among nutrition questions most of the faculty always had breakfast (sum=342) and only a few ate 6-11 servings of bread, cereals, rice and pasta each day (sum=173). In physical activity, most of faculty preferred to use stairs instead of elevators and parked car away from their destination (sum=256) and only few of them took part in leisure time physical activity (sum=178). The maximum number of faculty members during interpersonal relationship questions reported that they praise other people easily (sum=349) but only some of them spent time with close friends (sum=292). From spiritual growth parameters, most of the faculty was aware of what was important to them in their life (sum=346) and least of them found ways to meet their intimacy (sum=270). Many members of the faculty accepted those things in their life which they could not change (sum=315) to manage their stress but only a few practiced relaxation and meditation for 15-20 minutes daily (sum=228).

HPLPII and all its subscales differed by gender but were not statistically significant Weight showed significant correlation with gender, height, BMI and CHS. Height was having a significant correlation with health responsibility and physical activity. HPLPII and its subscales differed by department but showed significant correlation only with stress management Table 2.

Table 2: Significant correlation in stress management

		Health responsibility	Nutrtion	Physical Activity	lnteipersonal relationship	Spiritual growth	Stress management	HPLP 11
Aqe	r	0.02	0.19	0.129	0.051	0.150	0.205	0.163
	p	0.843	0.055	0.198	0.612	0.134	0.038	0.103
Gender	r	*1.04	0.007	*.108	*.070	*.159	*.142	*.126
	p	0.299	0.943	0.282	0.482	0.111	0.156	0.208
Weight in kg	r	0.07	0.034	0.006	0.147	0.063	0.098	0.089
	p	0.484	0.738	0..953	0.14	0.530	0.326	0.374
Height in meters	r	0.236	0. 038	0.219	0.156	0.156	0.085	0.191
	p	0.017	0.701	0.027	0.118	0.118	0.395	0.055
BMI	r	*.061	0.019	*.099	0.083	*.008	0.066	0.000
	p	0.541	0.847	0.325	0..406	0.937	0.510	0.999
Department	r	0.036	0.068	*.103	*.074	*.108	*.197	*.116
	p	0.721	0.498	0.301	0.459	0.282	0.047	0.246

HPLPII and its all six subscales show significant correlation with each other. The regression model showed age and BMI to be strong predictors of current health status Table 3.

Table 3: Summary of Regression model.

	R	Adjusted R²	Standardized coefficient Beta	t	Sig.
Age of respondent			0.327	3.535	0.001
BMI of respondent	0.433	0.171	0.226	2.448	
					0.016

Analysis of third part of the questionnaire showed that 29.4% of the faculty members were hypertensive of which 90% were on its treatment. 10.8% were diabetic. Among diabetics 72.7% were on diabetes mellitus medication and 75% were controlling their diet. 4.9% of faculty members had been diagnosed with asthma and all of them had taken its treatment. 1% of them had been diagnosed and treated for chronic obstructive pulmonary disease (COPD). None of them had ever been diagnosed with carcinoma of the prostate, breast or uterus.

Discussion

The public typically expects those in the health care industry to take better care of themselves and to set a good example. Findings from the current study showed that the average HPLP II score for the basic health sciences faculty at Services Institute of Medical Sciences, Lahore, was above average, and that the average BMI for the sample group was above the healthy range. These results had a higher mean HPLP II score than the Turkish study among nurses [21]. Similar results regarding BMI were found in a study conducted at Iran's Guilan University of Medical Sciences [22]. According to a study on healthy habits among Saudi university students, 31.3% of participants had a body mass index (BMI) above the healthy range. According to the data presented there, 19.8% of people had a below-average lifestyle, 40.7% had a moderate lifestyle, 58.6% had a good lifestyle, and 95.8% had an excellent lifestyle [23]. When compared to samples of students from Japan,

Jordan, and Kuwait, the mean score on the HPLP-II was higher than in all three countries [23].

Similar to our findings, the study conducted at Guilan University found that interpersonal relationships received the highest mean score [6]. Our study found that spiritual development was the second most important factor. Results from a study done at a Saudi university has same results [23].

Education for health care professionals has not been effective in producing graduates with the skills necessary to help the general public and individual patients make sustainable changes to their diet and daily routines within the context of their communities and homes. Health professionals can have a significant positive impact on individual and population health if they acquire skills in encouraging healthy diet and lifestyle choices as part of their formal education and subsequent professional practice. There is scant evidence of long-term initiatives that have successfully addressed the inadequate nutrition training within health professions that are not themselves rooted in nutrition [24]. Experts in the field of health care lack the knowledge and training to fully realize the potential impact of improved nutrition on patients' well-being [24].

Conclusion

In general, faculty members exhibited behaviours that are beneficial to health. Not enough faculty members made an effort

to be physically active. They were expected to be excellent role models for health promotion due to their profession in the medical field. Educating faculty through seminars and workshops on the benefits of leading a healthy lifestyle has the potential to increase both their health promotion life style profile score and their efficiency. We need better infrastructure and stricter rules to encourage healthy living. .

Strenghts

Everyone in the basic science departments was surveyed for the study. The Cronbach's Alpha for the questionnaire we used was 0.87.

Limitations

This study had one major limitation: it is cross-sectional, so we can only look at the data from one angle. No qualitative analysis was performed in this study, so we also have no idea how the faculty members in this institution feel about HPLP. The results of these studies on spiritual growth may not be applicable to countries with a greater variety of religions or to societies where Islam is not the dominant faith. Considering that women make up about 75% of the sample, the findings about physical activity may vary in studies that include more men. It's possible that a different health status would be found in research where the average age of the faculty is lower than in this study. .

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