



## Original Article

## Knowledge, Attitudes and Practices of General Practitioners in Lahore with Regard to Excess Weight and Obesity

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## ABSTRACT

The number of people suffering from overweight has equaled the number of undernourished people. **Objective:** To determine knowledge, attitude and practice of resident's general physician's related to obesity. **Methods:** A KAP study was conducted among male and female physician having age between 30-60 years. Participants were asked about their knowledge, attitude and practice and scored according to their responses. The Sample size was 100. It was a questionnaire-based study. The questionnaire was divided into four parts professional and personal characteristics, including training related to obesity; knowledge of current recommendations regarding physical activity; attitudes towards obesity and patients with obesity and reported practices. Data were entered and analyzed using SPSS version 23.0. **Results:** Showed that Majority of General Practitioners (GPs) (55%) know the prevalence of obesity and 52% know the body mass index ranges. (73%) think that obese patients are not comfortable discussing their weight. 28% GPs measured weight and calculated BMI (66%). 54% of GPs calculate their own body mass index. **Conclusions:** From this study it is observed that majority of the respondents know about prevalence of obesity and concept of BMI. It also sheds light on the fact that neither patients nor doctors are comfortable in discussing their weight specially when they are obese. General Practitioners involved in study know much about the weight related issues and their treatment as well. This highlights the need for improved communication and sensitivity when addressing excess weight related issues.

## INTRODUCTION

This is what a recently published study suggests, according to which, for the first time in history, the number of people suffering from overweight has equaled the number of undernourished people. Indeed, obesity is responsible for a high rate of morbidity and mortality, which generate significant costs. Physicians with five years of practice and less are more inclined to refer their patients to a nutritionist / dietitian [1]. From a quantitative point of view, the body mass index (BMI) in kg / m<sup>2</sup> is the most widely used tool for measuring excess weight and obesity [2]. According to this index, excess weight and obesity are defined by BMI > 25 and > 30 respectively [3]. According to the World Health

Organization (WHO) BMI is considered to be a reliable and valid measure of body fat because it is closely related to body weight and takes height into account [4]. In order to remedy the lack of precision in BMI, the calculation of the waist circumference is an additional tool to identify patients with predominantly central obesity, the main predictor of morbidity and mortality. Some endocrine disorders can contribute to obesity, although these disorders account for only a small fraction of all cases. Examples of such factors are the degree of physical activity, the level of personal control over weight, and socio-economic level [5]. Energy expenditure is the sum of

basal metabolism, thermogenesis and physical activity. Basal metabolism represents the energy consumed by an individual while resting in a room at a comfortable temperature [6]. These results do not allow us to draw any conclusions on the subject, but since thermogenesis accounts for only 10% of the total energy expenditure, therefore, a change in eating habits due to close monitoring of their diet, forgetting when taking note of their diet, underestimation of portions, and a lack of knowledge about the composition of food are important elements [7]. During the week of the survey in a study patients may actually have had consumed less, but the report on these eating habits was not representative of regular consumption [8]. External influences include the time of day, the sight or smell of food, and the presence of other people, while internal factors are defined as hunger and satiety. In addition, some psychological damage has been identified as being associated with obesity. This type of episode has to be present at least twice a week in the past six months to be defined as compulsive eating [9]. Recent research has emphasized that adipocytes are not just an accumulation of fat, but cells with specific endocrine functions [10]. In addition, in obese patients it is often observed as a state of dyslipidemia where there is an increase in LDL (low-density lipoprotein) cholesterol and triglycerides and a decrease in HDL (high-density lipoprotein) cholesterol [11]. These conditions have a significant impact on the quality of life of obese people and are the main reason for consultation. Being overweight is associated with the development of osteoarthritis, gout, and several lung conditions [12]. On the pulmonary level, the accumulation of fatty tissue in the ribs, abdomen and diaphragm decreases the compliance of the rib cage, leading to increased pulmonary work and chronic hypoxemia [13]. There is a positive relationship between high BMI and non-insulin-dependent diabetes mellitus (type 2). Indeed, obesity promotes bile super saturation and decreases gallbladder motility [14]. Only patients with a BMI greater than 30 only or greater than 27 accompanied by comorbidity such as hypertension, dyslipidemia and MCAS (Mast Cell Activation Syndrome), are offered pharmacological treatment [15]. Finally, surgery is reserved for patients with morbid obesity (BMI > 40) and resistant to other treatments. In fact, there is an increase in the prevalence of certain psychological conditions, such as major depression, bulimia and other eating disorders, in obese patients under treatment [16].

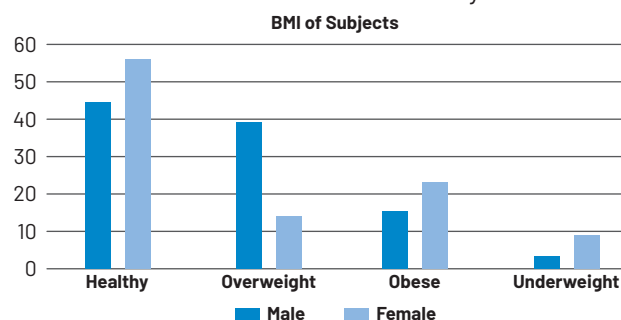
## METHODS

A cross-sectional study was conducted, using questionnaire among general physicians. This study was conducted from 1<sup>st</sup> June to 30<sup>th</sup> 2021. The Sample size was 100. It was a Knowledge, Attitude and Practice based study.

This study was approved by the Teaching and Research Ethics Committee of College of Allied Health Sciences, Akhtar Saeed Medical College. The male and female physicians having age between 30–60 years were included in the study. GP's below 30 and above 60 of age were excluded in the study. It was a questionnaire-based study. The questionnaire was divided into four parts professional and personal characteristics, including training related to obesity; knowledge of current recommendations regarding physical activity; attitudes towards obesity and patients with obesity and reported practices. Results were presented in the form of graphs and tables. Several questions were created to evaluate each concept. Data were entered and analyzed using SPSS version-23.0.

## RESULTS

Figure 1 shows that most of the GP's were healthy with 44% males and 56% females, 39% males and 13% females were overweight, 14% males and 22% females were obese and 3% males and 9% females were underweight. The BMI was calculated with the standard formula by WHO.



**Figure 1:** Body Mass Index of Subjects

$$\text{BMI} = \frac{\text{weight in (kg)}}{\text{height in (m}^2\text{)}}$$

Table 1 shows that 60 were male GP's and 40 were female GP's. Mean age of male GP's was 40 years and mean age of female GP's was 40 years.

**Table 1:** Age of Subjects

Residence	N	Mean	Minimum	Maximum
Age of male GP	60	40	30	50
Age of female GP	40	40	30	50

Table 2 shows that majority of General Practitioners (55%) know the prevalence of obesity and 52% know the body mass index ranges.

**Table 2:** General Knowledge of General Practitioners about Obesity (n=100)

Statement	Yes	No
Do you know the prevalence of obesity	55%	45%
Do you know BMI ranges of normal weight, overweight, obese?	55%	48%

Table 3 Presents attitudes of general practitioners with regard to obesity. (73%) think that obese patients are not comfortable discussing their weight while only 11% of doctors say they themselves are uncomfortable discussing

their weight.

**Table 3:** General Attitudes of General Practitioners about Obesity (n=100)

Statement	Percentage				
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I would only offer advice about weight control if the patient asks for it	2	1	14	45	38
Obese patients are not comfortable discussing their weight	3	4	5	15	73
GPs are pessimistic about the ability of their obese patients to achieve their weight loss goal	5	14	34	16	28
Doctors say they themselves are uncomfortable discussing their weight	7	29	25	28	11
Treatment for weight loss should be offered only to adults who are obese	2	25	37	31	5
Doctors say they are concerned about their weight	8	15	12	21	44
The family doctor's role is to refer obese patients to other health professionals rather than attempt to treat them themselves	18	38	34	5	5
Even small weight loss should be encouraged as it can produce significant health benefits	62	30	4	1	3
Presence of eating disorders in the patient are the main obstacles to treatment	5	23	15	20	37

Table 4 shows 28% GP's measured W/H ratio and calculation of BMI (66%). 54% of GP's calculate their own body mass index.

**Table 4:** Practices of General Practitioners in Managing Obesity (n=100)

Statement	%	
	Yes	No
Did you calculate BMI	66	34
Patient's general appearance and diagnostic tools are used for evaluation	46	54
Did you measure W/h ratio	28	72
Do you recommend Ketogenic diet for weight loss	20	80
Eat more fruits and vegetables are effective practice for weight loss.	30	70
Do you think not eating between meals is effective for weight loss.	66	34
Do you calculate your own body mass index?	54	46

## DISCUSSION

The study's findings show that doctors who are more involved in providing obesity management practices have more positive attitudes towards obesity in general, receive more support from their medical practice, and feel more qualified and accountable for doing so in primary care settings [17]. Majority of GP's (55%) know the prevalence of obesity and among those who obtained a wrong answer, 45% had overestimated this prevalence. Another study represented (55.7%) appropriately reported the body mass index value at which a patient would be classified as underweight, overweight and obese [1]. This study examined attitudes, knowledge and practice of General Physicians in overweight and obesity management. We

found that General Physicians hold positive opinions about their roles in the area of weight management. We also noted that 44% of doctors say they are concerned about their weight, but only 24% believe they are overweight. Most participants (69%) reported experiencing barriers to treating overweight and obese patients [18]. Another study by Kebbe *et al.*, reported the majority (69%) think that obese patients are not comfortable talk to about their weight issue with nutritionist and GP, on the other hand 49% of doctors say they are concerned about their weight [19]. According to results presence of eating disorders in the patients (37%) are the main obstacles to treatment. According to the same principle used for knowledge, 3% GP's believe insignificant weight loss would be encouraged and it can produce major health benefits. Doctors with BMIs between 25 to 28 who believe that obese patients have less willpower. Still using physicians' personal BMIs, we asked ourselves whether those who think they are overweight are indeed above their healthy weight. According to the results obtained, 5% family doctor's role is to refer obese patients, comfortable discussing their weight, to other health professionals instead of treating themselves. 18% family doctor's role is to refer obese patients to nutritionist or dietitians so they are comfortable discussing their weight instead of treating themselves. According to study 20% recommended keto diet for weight loss where's 80% not recommended, 54% of GP calculates their own body mass index. The obese have less willpower than people of healthy weight are more likely to treat themselves [20]. Also, it is interesting to note that uncomfortable physicians are more likely to believe that patients are uncomfortable discussing their weight. We wonder if this pessimistic attitude might not be due to the fact that the majority of doctors have unrealistic goals. This study complements the growing body of research that shows doctors with the right education and training are more likely to treat obesity in primary care. When treatment is started, the most preferred means are education about the risks of obesity, regular physical exercise and recommendations for a low-calorie diet [21].

## CONCLUSIONS

From this study it was observed that majority of the respondents know about prevalence of obesity and concept of BMI. It also sheds light on the fact that neither patients nor doctors are comfortable in discussing their weight specially when they are obese. General Practitioners involved in study know much about the weight related issues and their treatment as well. This highlights the need for improved communication and sensitivity when addressing excess weight related issues.

## Authors Contribution

Conceptualization: FHR

Methodology: KJ

Formal analysis: AN, ZH

Writing-review and editing: KJ, MM, AN, ZH

All authors have read and agreed to the published version of the manuscript.

## Conflicts of Interest

The authors declare no conflict of interest.

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