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Doctor-patient communication in obesity disease - the perspective of Polish primary care physicians

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Abstract

Background Obesity is a chronic disease that is affecting an increasing number of patients. The prevalence of obesity, the age of patients affected, and the range of associated comorbidities suggest that general practitioners will engage with this patient group extensively throughout their professional careers. It is regrettable that numerous obstacles impede the efficacious treatment of obesity by primary care physicians. These include inadequate training in obesity management and communication with patients, as well as a pervasive and problematic bias in the approach to the treatment of patients with obesity.

Methods The objective of the study was to examine the knowledge, self-assessment, experiences and perceptions of primary care doctors in Poland with regard to the communication and management of obesity. The data were collected via computer-assisted telephone interviewing (CATI). The sample was deliberately random selected from the available database of numbers. The inclusion criteria were aged 24 or over and active working as a primary care doctor in Poland. The research sample comprised 150 primary care doctors with various medical specialties, including the following: family medicine, internal medicine, pediatrics, endocrinology, diabetology, and others. An even distribution of participants was not ensured with respect to the parameters considered.

Results The findings of our study indicate that primary care physicians mostly disagreed with the view that patients living with obesity are less hardworking or more demanding but just over half disagreed that these patients are lazier than others. Doctors reported rarely using fear-based language or blaming excessive food consumption for obesity. Instead, many emphasized that obesity is a disease and considered the patient's perspective. Doctors who rated their communication skills and medical knowledge needed for conversations with patients living with obesity more highly were more likely to address this topic during a visit for an unrelated medical condition. Those who avoided the topic often felt they lacked the skills or knowledge to engage patients effectively. Almost half of the surveyed physicians had not received any training in communicating with patients living with obesity and only 11% had the issue addressed in a course for specialization.

Conclusions and implications The study indicates a necessity for changes in the curricula of both pre- and postgraduate education, including an enhancement of the knowledge and abilities of primary care providers in the domain of communication during visits with patients with obesity, the encouragement of lifestyle modifications

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and the implementation of efficacious treatments for obesity, as well as activities designed to modify the negative attitudes of primary care physicians towards patients living with obesity which should not appear in healthcare at all.

Keywords Communication, General practitioners, Obesity, Primary health care, Communication in obesity disease, Doctor–patient relationship

Background

The World Health Organization (WHO) defines obesity as a chronic complex disease characterized by excessive fat deposits that can have adverse effects on health [1]. In 2022, 43% of adults around the world were classified as overweight and 16% were living with obesity. Among children and adolescents, 390 million were identified as overweight and 160 million were living with obesity [2].

Adipose tissue plays a pivotal role in the regulation of energy homeostasis. When adipose tissue is in excess, it is associated with the production of high levels of pro-inflammatory cytokines in plasma, such as C-reactive protein or tumor necrosis factor alpha (TNF-α), which can lead to the development of numerous serious medical conditions [3]. Consequently, obesity is linked to a reduction in disease-free time and life expectancy by 6 to 14 years [4]. A causal relationship has been confirmed between a high body mass index (BMI) and an increased risk of developing cancers of the esophagus, colon and rectum, liver, gallbladder and biliary tract, pancreas, breast, uterus, ovary, kidney and thyroid [5]. It has been demonstrated that obesity is a significant risk factor for the development of cardiovascular disease, including conditions such as ischemic heart disease, heart failure, atrial fibrillation, ventricular arrhythmias and sudden death. In individuals with an underlying atherosclerotic background, the presence of additional risk factors, such as insulin resistance, type 2 diabetes, hypertension, dyslipidemia and obstructive sleep apnea, further exacerbates the risk of cardiovascular disease in those with obesity [3]. Furthermore, patients with obesity are at an elevated risk of developing other conditions, including ischemic stroke, hemorrhagic stroke, diabetes, chronic kidney disease, osteoarthritis of the knee, osteoarthritis of the hip, and back pain [5].

Obesity not only contributes to physical health issues but is also frequently associated with mental health disorders and social challenges, including low self-esteem, depression, and social stigma [6]. Research indicates a bidirectional relationship between depression and obesity. Depressed adults have a 37% increased risk of becoming obese, while obese individuals face an 18% higher risk of developing depression over time [7]. Obesity exacerbates the incidence of depression and anxiety, with the severity of metabolic dysfunction being a key factor. The likelihood of developing major depressive disorder and anxiety rises in proportion to the number of comorbid metabolic disorders [8]. The presence of depression and anxiety in individuals with obesity leads to significant psychological and physical consequences. The overlap between metabolic and mood disturbances can create a vicious cycle of despair, overeating, and physical inactivity, thereby worsening obesity and its associated health risks. Furthermore, low mood and anxiety not only hinder personal well-being and quality of life but also reduce the motivation to seek and adhere to therapeutic interventions, ultimately impeding successful weight management [8].

In light of the significant prevalence of obesity, the age range of affected individuals, and the multitude of associated comorbidities, it is evident that a primary care physician (PCP) will interact with such patients to a considerable extent throughout the course of their professional practice. Consequently, this topic occupies a pivotal role in the field of primary care medicine.

Even a 5% weight loss in patients with obesity can improve cardiometabolic health, prevent the development of type to 2 diabetes and reduce health care costs [9]. It is regrettable that, despite the plethora of available treatment options, there is a dearth of coding and a striking lack of identification as a significant issue in primary care clinics [10]. Less than one third of outpatients had a diagnosis of obesity in their medical records. This is also the case for inpatients, where less than 1% of hospitalized patients with a body mass index (BMI) of 26 or above had a documented diagnosis of obesity or overweight in their discharge diagnoses [11]. A number of obstacles have been identified as impeding the effective management of obesity by PCPs. These include inadequate training in obesity management and a lack of time available for medical visits [10]. A significant obstacle appears to be the presence of biased perceptions and attitudes regarding obesity management among a considerable number of healthcare providers. The patient's body weight affects the nature of a visit to primary care and how doctors perceive and treat their patients [12]. The stigmatization and bias associated with obesity have been identified as significant factors that negatively impact the quality of medical care received by individuals with obesity [13].

In Poland, the provision of primary health care is the responsibility of general practitioners in primary care clinics and individual medical practices. The costs of treatment in these facilities are borne by the National Health Fund, which is financed by health contributions made under compulsory social insurance. The issue of obesity treatment represents a significant challenge

within the Polish healthcare system. In response, a number of consensus documents have been developed by medical associations and guidelines for doctors [14] as well as health programs [15] to help this group of patients are being developed to assist this particular group of patients. Nevertheless, even the most comprehensive guidelines will be of little benefit if the subject is not addressed at all by the PCP during the course of a medical consultation, or if the physician employs communication barriers and fails to utilize effective communication skills.

In 2020, a nationwide study was conducted in Poland on a group of 185 healthcare professionals, comprising doctors, nurses, midwives, physiotherapists, paramedics, and other healthcare workers. The objective was to analyze the attitudes and experiences of medical facility employees in their interactions with patients living with obesity. The majority of healthcare workers (68.5%) attested to the prevalence of negative attitudes towards patients with obesity, with 48.4% having observed discriminatory behavior on the part of medical personnel [16].

There is a paucity of knowledge regarding the perceptions of Polish PCPs towards patients with obesity and their medical visits. The objective of this study is to address the aforementioned gap in knowledge by increasing understanding of the attitudes of Polish PCPs towards patients living with obesity and their preparedness in terms of medical knowledge and communication skills to conduct visits to this group of patients.

Methods

Study design

The study had the following objectives: to gain insight into the medical knowledge about obesity, opinions towards patients living with obesity and communication with them, experiences with this group of patients, and self-assessment of communication skills used during medical visits. We did not find a single validated tool that would cover all of our research areas while providing a concise survey, so we created our own version of the questionnaire. We formulated and validated a questionnaire through a face-validity process with specialists from different disciplines. Questions concerning language issues were consulted with a linguist who deals with the language patients use to describe their experiences. Issues from medical practice were consulted with a doctor who worked several years in primary care and who is a specialist in the field of medical communication. We consulted with an experienced quantitative researcher on the methodological correctness of the questionnaire. After consultations some questions were modified due to concerns that the doctor might not admit to making such inappropriate statements.

In the questions concerning communication issues, we included elements that are barriers to communication with patients with obesity [17]. These include statements that contain a fixing reflex (e.g. you have to lose weight). According to the principles of motivational interviewing, which supports motivating patients is an ineffective method [18]. Statements that are intended to motivate patients by referring to threats and creating fear (such as "if you don't lose weight, you may regret it") should also be avoided [19]. At the same time, the guidelines indicate that in conversations with patients it is worth emphasizing that obesity is a disease, not a consequence of the patient's choices and lifestyle, and strive to learn the patient's perspective [20].

The study by Sobczak et al. indicates that patients in Poland encounter discriminatory and stigmatizing attitudes in their interactions with healthcare professionals [21]. Referring to these experiences and aiming to study communication, we proposed formulations that serve as examples of such attitudes. Furthermore in recent years, however, there has been a growing consensus that obesity should be regarded as a disease. There is also a growing emphasis on the development of effective communication strategies for engaging with patients with obesity. In accordance with the recommendations, it is imperative to communicate in a manner that mitigates the stigmatization of patients, refraining from ascribing obesity to character traits and lifestyle choices. The recommended approach to communication is to adopt a people-first language [22, 23].

Inclusion/exclusion criteria

The inclusion criteria were as follows: the participants were required to be aged 24 or over, which is the age at which medical studies in Poland are typically completed, and to be currently employed as a primary care doctor in Poland. We did not limit participation based on specialization or years of experience.

Variables and data collection

The data were collected via computer-assisted telephone interviewing (CATI). The doctors who took part in the study were selected from a database of telephone numbers obtained from an external research company. Because the database did not contain a complete sampling frame (i.e. all doctors in Poland), it was a deliberately random sample selected from the available database of numbers. The doctors did not receive any incentives for taking part in the survey. The study was conducted in an anonymous manner. Informed consent was obtained from all respondents prior to completing the electronic survey. A brief introduction to the survey detailing the purpose of the survey and information that all collected information will be anonymous and used only for

statistical analysis was provided electronically and participants consented electronically prior the interview. The research sample comprised 150 PCPs with various medical specialties, including the following: family medicine, internal medicine, pediatrics, endocrinology, diabetology, and others. The independent variables considered in the study included the age of the participants, gender, years of work experience, type of specialization, and the declaration of whether the participant or a close relative has had or is currently suffering from obesity disease. However, an even distribution of participants based on the given parameters was not ensured. Data collection took place between November and December2023.

Statistical analysis

Statistical analysis was conducted using the Statistica Software 13 (Tibco). The analysis began by testing the normal distribution with the Shapiro-Wilk test and basic descriptive statistics were calculated. As the conditions for normal distribution were not met, the Mann-Whitney U test or Kruskal-Wallis rank ANOVA analysis with multiple comparisons of mean ranks for all samples was used. Correlations were calculated using the Spearman coefficient. The results were assumed to be statistically significant when $p < 0.05$.

Ethical considerations

The study was approved by the Bioethics Committee of the Medical University of Warsaw (reference number AKBE/12/2024). The study was conducted in accordance with the principles described in the Declaration of Helsinki.

Results

Study population

The majority of respondents were female and were in the 50–59 age group, with over 20 years of work experience. With regard to weight, 13 of the 150 participants had currently or previously suffer from obesity disease, and 49 had a close relative who had ever suffered from obesity. Table 1 summarizes characteristics of respondents.

In accordance with the statistical analysis, in order to standardize the group sizes, the following age groups were adopted: doctors up to 49 years of age, between 50 and 59 years, and over 60 years. Additionally, work experience was divided into two categories: less than 20 years of professional experience and more than 20 years. In planning the study, the research hypotheses were adopted, according to which the respondents' answers are differentiated by: gender, age, years of occupational experience, experience of obesity (their own or a loved one's), participation in training courses on communication, and the self-assessment, i.e. respondent's belief that they have knowledge about talking about obesity. Therefore, the analysis of the results was designed to see if these variables influenced the respondents' answers. If the hypotheses were confirmed, the results were described.

Participation in communication training

A total of 46% of the surveyed physicians had not received any training in communicating with patients living with obesity. Among those who had received training, the majority (30%) had done so by attending a conference, while 17% on additional training courses. Only 11% of the respondents indicated that the issue had been addressed in a course of specialization, while only 6% reported that it had been covered in their classes during their studies. No one pointed out any other of the ways mentioned above.

Physicians' beliefs about patients living with obesity

In terms of physicians' perceptions of patients with obesity, the majority of respondents indicated disagreement or strong disagreement with the following statements, which were presented in order of descending frequency: "Patients with obesity are more demanding than other patients" (77%), "Patients with obesity are less hardworking than other patients" (74%), "Patients with obesity are more lazy than other patients" (61%), and "Patients with obesity are no different from other patients" (48%). The detailed results are presented in Table 2.

Methods for talking about weight management

Most respondents declared that they never use sentences such as: "If you don't lose weight, you may regret it" (82%), "The problem is that you eat too much" (63%), "You have to pull your socks up" (47%). In contrast, the phrase "It is important for you to know that obesity is a disease" is frequently employed (70%). The detailed results are presented in Table 3.

Male doctors were more likely than female doctors to use coercion, when discussing weight management with patients living with obesity, employing phrases such as "You have to lose your weight" (50% vs. 33.3%, $p < 0.05$) and "You have to pull your socks up" (43.9% vs. 19.1%, $p < 0.05$) and fear-based language such as "If you don't lose weight, you might regret it" (66.4% vs. 56%, $p < 0.05$). However, both male and female doctors almost never used such expressions. In addition, doctors aged 60 and above were more likely than those in the 50–59 age group to use coercion as a means of motivating patients to lose weight (43.3% vs. 40%, $p < 0.05$).

Perception of communication with patients living with obesity

In the section on primary care doctors' communication with patients living with obesity (Table 4), the responses that received the most support were: "One should show

Table 1 Characteristics of respondents

Characteristics		Number of participants (*n*)	Percentage of participants (%)
Gender			
	Female	84	56.0%
	Male	66	44.0%
Age			
	24–29	1	0.7%
	30–39	7	4.7%
	40–49	38	25.3%
	50–59	61	40.7%
	60 and over	43	28.6%
Number of years of work experience			
	0–5	1	0.7%
	6–10	12	8.0%
	11–20	44	29.3%
	Over 20	93	62.0%
Specialization			
	family medicine	31	20.7%
	internal diseases	21	14.0%
	pediatrics	13	8.7%
	endocrinology	39	26.0%
	diabetes	19	12.7%
	Other	27	18.0%
Do you suffer from obesity?			
	Yes	13	8.7%
	No	133	88.7%
	I prefer not to answer	4	2.7%
Is there anyone among your relatives who has ever suffered or was suffering from obesity?			
	Yes	49	32.7%
	No	101	67.3%
Have you ever participated in training sessions that addressed how to communicate with patient living with obesity? (multiple-choice question)			
	Yes– during classes in the course of studies	9	6.0%
	Yes– during specialization courses	17	11.3%
	Yes– in additional training sessions	25	16.7%
	Yes– during a lecture at a conference	45	30.0%
	Yes, in another way	0	0.0%
	No	69	46.0%

understanding of the patient's perspective" (91%), "One should find out what the patient's perspective is, for example how the patient perceives his/her obesity problems" (90%) and "One should be careful about the words used so as not to offend the patient" (89%). A majority of respondents (38%) indicated disagreement with the statement that "The patient should be made aware that obesity is the result of self-neglect". An in-depth analysis showed that male physicians were more likely than female to agree with the statement that, in conversations with patients with obesity, careful attention must be paid to the choice of words to avoid offending them (93.9% vs. 85.7%, $p < 0.05$). Physicians who had not participated in training programs were more likely to agree with the statement that patients should be made aware that obesity is a result of neglecting one's health (39.1% vs. 33.3%, $p < 0.05$). Physicians who had personally experienced obesity or had a close family member who had, were more likely to agree with the statement that it is important to both find out what the patient's perspective is (respectively 100% vs. 88.7% and 93.9% vs. 88.1%, $p < 0.05$) and to show understanding of it (respectively 100% vs. 90.2% and 93.9% vs. 90.1%, $p < 0.05$).

Self-assessment of communication skills and its relationship with other variables

With regard to the self-assessment of communication competencies in conversations with patients with obesity (Table 5), 43% of respondents indicated that they either strongly agreed or agreed that they possessed the ability to initiate a conversation about obesity and to select appropriate vocabulary and language to avoid

Table 2 Primary care Doctors' opinion of patients living with obesity

To what extent do you agree or disagree with the following statements about patients with obesity?		
Patients with obesity are more lazy than other patients.	Strongly disagree	28.7%
	I rather disagree	32.7%
	Neither agree nor disagree	21.3%
	I rather agree	11.3%
	I strongly agree	6.0%
Patients with obesity are more demanding than other patients.	Strongly disagree	42.7%
	I rather disagree	34.7%
	Neither agree nor disagree	14.0%
	I rather agree	5.3%
	I strongly agree	3.3%
Patients with obesity are less hardworking than other patients.	Strongly disagree	33.3%
	I rather disagree	40.7%
	Neither agree nor disagree	15.3%
	I rather agree	6.7%
	I strongly agree	4.0%
Patients with obesity are no different from other patients	Strongly disagree	21.3%
	I rather disagree	26.7%
	Neither agree nor disagree	20.7%
	I rather agree	16.0%
	I strongly agree	15.3%

Table 3 Frequency of sentence use during a visit with patient living with obesity

How often do you use the following sentences when talking to patient with obesity?		
It is important for you to know that obesity is a disease.	I never use	3.3%
	I hardly ever use	4.0%
	I sometimes use	22.7%
	I use very often	70.0%
You have to lose weight.	I never use	32.0%
	I hardly ever use	27.3%
	I sometimes use	24.0%
	I use very often	16.7%
You have to pull your socks up.	I never use	47.3%
	I hardly ever use	22.7%
	I sometimes use	21.3%
	I use very often	8.7%
The problem is that you eat too much.	I never use	63.3%
	I hardly ever use	18.7%
	I sometimes use	13.3%
	I use very often	4.7%
If you don't lose weight, you may regret it.	I never use	82.0%
	I hardly ever use	12.0%
	I sometimes use	4.7%
	I use very often	1.3%

stigmatizing the patient's problems. With regard to the question of whether doctors are able to motivate patients to undergo treatment, the most frequently selected answers were as follows: I rather agree and neither agree nor disagree. 37% of those surveyed agreed and a quarter

Table 4 Primary care doctors' communication with patients living with obesity

To what extent do you agree or disagree with the statements regarding the communication of PCPs with patients living with obesity?		
One should be careful about the words used so as not to offend the patient.	Strongly disagree	0.0%
	I rather disagree	2.7%
	Neither agree nor disagree	8.0%
	I rather agree	41.3%
	I strongly agree	48.0%
One should have the same approach as with other patients.	Strongly disagree	7.3%
	I rather disagree	4.7%
	Neither agree nor disagree	8.7%
	I rather agree	43.3%
	I strongly agree	36.0%
The patient should be made aware that obesity is the result of self-neglect.	Strongly disagree	5.3%
	I rather disagree	38.0%
	Neither agree nor disagree	20.7%
	I rather agree	23.3%
	I strongly agree	12.7%
One should find out what the patient's perspective is, for example how the patient perceives his/her obesity problems.	Strongly disagree	0.0%
	I rather disagree	0.7%
	Neither agree nor disagree	9.3%
	I rather agree	44.0%
	I strongly agree	46.0%
One should show understanding of the patient's perspective.	Strongly disagree	0.7%
	I rather disagree	0.7%
	Neither agree nor disagree	7.3%
	I rather agree	46.0%
	I strongly agree	45.3%

Table 5 Self-assessment of communication skills with patients living with obesity

To what extent do you agree with the following statements in the area of communication with patients living with obesity during medical visits		
I know how to initiate a conversation about obesity.	Strongly disagree	0.0%
	I rather disagree	0.0%
	Neither agree nor disagree	27.3%
	I rather agree	42.7%
	I strongly agree	30.0%
I know what words and phrases to use so as not to stigmatize the patient's problems.	Strongly disagree	0.7%
	I rather disagree	1.3%
	Neither agree nor disagree	26.0%
	I rather agree	52.0%
	I strongly agree	20.0%
I know how to motivate a patient to undergo treatment.	Strongly disagree	0.0%
	I rather disagree	4.0%
	Neither agree nor disagree	40.0%
	I rather agree	43.3%
	I strongly agree	12.7%
I have the medical knowledge needed to talk to patients with obesity.	Strongly disagree	0.0%
	I rather disagree	5.3%
	Neither agree nor disagree	33.3%
	I rather agree	36.7%
	I strongly agree	24.7%

strongly agreed that they "have the medical knowledge needed to talk to patients with obesity". At the same time, one-third neither agreed nor disagreed on the subject. Physicians with more than 20 years of experience compared to respondents having shorter work experience were more likely to agree with the statement that they are able to talk with patients with obesity, including knowing how to initiate the conversation about obesity (78.5% vs. 63.2%, $p < 0.05$) and choosing words that avoid stereotyping the patient's issues (77.4% vs. 63.2%, $p < 0.05$).

A correlation was identified between the perceived communication competence, motivational skills, and medical knowledge about obesity related to discussions with patients with obesity and the likelihood of addressing obesity during a visit for another medical condition in the doctor's office. The higher the doctors' self-assessment of these competencies, the more frequently they raised the topic of obesity.

A moderate correlation revealed that the stronger the belief that they are capable of initiating a conversation and know which words to use, as well as having medical knowledge about obesity, the more they consider it important to understand how the patient perceives their obesity-related issues (0.537 and 0.547, $p < 0.05$), and to show understanding for the perspective of the patient with obesity (0.531 and 0.515, $p < 0.05$).

In addition, doctors who reported knowing how to initiate the conversation and which words to use to avoid stereotyping the patient's issues were more likely to have personal experience with obesity, either in their own history or in that of someone close to them. PCPs with such experience reported a higher self-assessment of their skills in communication, motivation, and the medical knowledge required for conducting such consultations.

Perception of communication needs

A deeper examination of the subject of communication reveals that the majority of doctors are uncertain as to whether they should take initiate a discussion about obesity during a medical visit with patients who suffer from obesity. Some 36% of doctors believe that "the doctor must initiate the conversation about obesity because they do not discuss this topic themselves" (36%). At the same time 39% of the respondents declared that patients with obesity "are oversensitive and it is better not to discuss the topic of obesity during the visit". The majority (61%) definitely agreed that "you need to explain to them at the beginning that obesity is a disease and can be treated". Respondents rather disagreed that "you have to use the broken record method (repeat the same thing many times) because nothing reaches them" (37%). One-third of respondents were not sure whether patients living with obesity have special communication needs at all (Table 6).

Table 6 Primary-care doctors' opinion on special communication needs of patients living with obesity

To what extent do you agree with the following statements regarding whether patients with obesity have special communication needs		
Yes, the doctor must initiate the conversation about obesity because they do not discuss this topic themselves.	Strongly disagree	2.0%
	I rather disagree	19.3%
	Neither agree nor disagree	36.0%
	I rather agree	30.7%
	I strongly agree	12.0%
Yes, you need to explain to them at the beginning that obesity is a disease and can be treated.	Strongly disagree	0.0%
	I rather disagree	2.0%
	Neither agree nor disagree	15.3%
	I rather agree	21.3%
	I strongly agree	61.3%
Yes, they are oversensitive and it is better not to discuss the topic of obesity during the visit.	Strongly disagree	16.0%
	I rather disagree	26.0%
	Neither agree nor disagree	39.3%
	I rather agree	17.3%
	I strongly agree	1.3%
Yes, you have to use the broken record method (repeat the same thing many times) because nothing reaches them.	Strongly disagree	15.3%
	I rather disagree	37.3%
	Neither agree nor disagree	26.7%
	I rather agree	15.3%
	I strongly agree	5.3%
I don't think they have any special communication needs.	Strongly disagree	28.0%
	I rather disagree	24.7%
	Neither agree nor disagree	30.7%
	I rather agree	14.0%
	I strongly agree	2.7%

The analysis also revealed that doctors who did not participate in training on communication skills were more likely to agree with the statement that patients with obesity are hypersensitive and that it is better not to address the topic of obesity during consultations (20.3% vs. 17.3%, $p < 0.05$).

There was an association between the perceived communication competence, motivational skills, and medical knowledge related to discussions with patients with obesity and the likelihood of addressing obesity during a visit for another medical condition in the doctor's office. The higher the doctors' self-assessment of these competencies, the more frequently they raised the topic of obesity ($p < 0.05$).

Addressing the topic of obesity during medical visits

Among PCP, 65% reported referring to obesity in a conversation with a patient with obesity when the patient presents at the physician's office for another medical condition. The statistical analysis revealed that doctors who declared that they always refer to the problem of obesity when talking to patients with obesity were more likely to demonstrate knowledge and skills in initiating conversations about obesity, using appropriate language

and terminology, and conducting visits to this group of patients. A greater proportion of doctors who did not refer to conversations about obesity with patients compared to those who said they always refer, agreed that these patients are more lazy than others (67% vs. 10%, $p < 0.05$). PCPs who never refer to the issue of obesity in discussions with patients with obesity were more likely than those who said they always refer to believe that they lacked the skills to motivate patients to engage in treatment (33.3% vs. 3.1%, $p < 0.05$) and that they lacked the requisite medical knowledge to conduct such conversations (66.7% vs. 1%, $p < 0.05$).

Discussion

Summary of findings

The study was conducted among primary health care physicians. The majority of doctors expressed disagreement with the assertion that patients with obesity are more demanding and less hardworking than other patients. However, just over half of the doctors surveyed also expressed disagreement with the assertion that these patients are lazier than others. Respondents mostly declared that they never use fear-based language. Just over half respondents indicated that they never make the assertion that the issue is that the patient is consuming an excess of food. Conversely, the majority of respondents indicated that they frequently inform patients that obesity is a disease and emphasized the significance of the patient's perspective and their perception of obesity. Approximately two-thirds of physicians indicated that they address obesity in a discussion with a patient who has overweight or obesity when the patient presents at the general practitioner's office for an unrelated medical issue. These group was more likely to report having the knowledge and skills to initiate conversations about obesity, using appropriate language and terminology to conduct visits with this group of patients. In contrary PCPs who never refer to the obesity were more likely to believe that they lacked the skills to motivate patients to engage in treatment and medical knowledge about obesity to conduct such conversation. They also tended to agree that these patients are more lazy than others. PCPs who did not participate in training on communication skills were more likely to agree with the statement that patients with obesity are oversensitive and that it is better not to address the topic of obesity during consultations.

Strengths and limitations

This study has several limitations. First, the lack of a validated instrument is a major barrier since the results of this study cannot be compared with similar studies. Second, the survey results describe respondents' declarations regarding their opinions and communication with patients with obesity. They do not reflect the skills used interacting with patients. The question asked about the use of sentences given in the survey (in Table 3). Therefore, the results do not show how much the respondents would use sentences with similar meanings. It is possible that selection bias may have occurred, as PCPs with a greater awareness of obesity may have been more willing to participate in the study. In order to take into account factors that may affect the results of the study, the specialization of the doctors, their age, years of work experience and the personal experience of the PCP or a closed one with an obesity disease were taken into account.

The strength of this study lies in its attempt to broaden knowledge on a critical and highly relevant issue concerning patients in primary care in light of the global obesity epidemic. The research underscores the need for changes in both pre- and postgraduate education programs, particularly in enhancing the knowledge and skills of PCPs in effective communication during consultations with patients living with obesity. The findings of this study corroborate the results of other research, highlighting the ongoing inadequacy in physicians' preparedness in this regard. Furthermore, the study emphasizes the need for parallel efforts aimed at modifying the negative attitudes of healthcare professionals toward patients struggling with obesity, which our and other studies have confirmed have a significant impact on the course of the medical appointment.

Discussion of findings and comparison with existing literature

Although the majority of respondents disagreed with the stereotypical statements, this result is still not satisfactory. Healthcare should not be a place where prejudice or stereotyping, in any form, have a presence. Our findings are consistent with those of other studies [24–26]. In a study of Swedish general practitioners, 47% attributed obesity to a lack of self-control, 14% to a lack of motivation, and 22% to laziness. Despite the fact that 97% of physicians believed that they could help people with obesity, 87% of physicians stated that patients were responsible for weight loss [24]. A survey of U.S. PCPs revealed a prevalence of negative attitudes towards patients with obesity. Nearly 80% of respondents believed that patients often or almost always lacked discipline, while 52% attributed the lack of weight loss to insufficient motivation [26]. In another study, 35% of doctors concurred with the view that people suffering from obesity lack willpower [25].

The beliefs held by physicians may influence the treatment options they offer to patients. In the study on attitudes and counselling behaviors related to obesity, PCPs who held the belief that patients living with obesity were responsible for their condition were more likely to hold the view that obesity is not a disease. Furthermore, they

were more likely to explain their decision not to prescribe drugs for obesity by citing concerns about drug safety, to view obesity as not requiring treatment and to perceive medical therapy as ineffective [27]. This is consistent with previous research indicating that some medical professionals hold negative attitudes towards individuals with obesity. These attitudes are characterized by beliefs that such individuals lack motivation, strong willpower, self-control and are unattractive, lazy and non-compliant [26]. A negative attitude among medical practitioners can perpetuate a vicious circle whereby patients with excess weight are less likely to be treated by doctors, who in turn are less likely to adopt a positive attitude towards such patients. This can result in a further decline in the number of overweight patients seeking medical advice, which in turn reinforces the negative attitudes of doctors [28]. It disrupts the doctor-patient relationship and the quality of care, creating health inequalities and leading to avoidance of medical visits. Consequently, this results in delays in the diagnostic process of other diseases and increased mortality in this group of patients. In light of these considerations, the recommendations on the management of obesity in adults [4] highlight the following: "health care providers should assess their own attitudes and beliefs regarding obesity and consider how their attitudes and beliefs may influence care delivery; may recognize that internalized weight bias (bias toward oneself) in people living with obesity can affect behavioral and health outcomes; should avoid using judgmental words, images and practices when working with patients living with obesity and avoid making assumptions that an ailment or complaint a patient presents with is related to their body weight". In our survey, approximately two-thirds of physicians indicated that they address obesity in a discussion with a patient who has overweight or obesity when the patient presents at the general practitioner's office for an unrelated medical issue. This figure is lower than that reported in a survey of physicians from primary care centers in Saudi Arabia, where 90.7% of doctors stated that they discuss this topic during such visits [29]. This finding is consistent with previous research indicating that few healthcare providers initiate discussions about weight loss options with patients who may be eligible for surgical treatment [30]. It is not uncommon for the topic of obesity treatment to be overlooked during medical visits. The existing literature describes a number of potential barriers that may contribute to this phenomenon. PCPs often lack the time, knowledge, and training to address obesity effectively [31]. Struggling with these barriers and the resulting feeling of frustration, for example due to the lack of equipment in the doctor's office to examine patients with obesity, may contribute to the development of negative attitudes towards these patients. Doctors report difficulties when performing abdominal, breast and pelvic examinations in patients who have BMI more than 40 and the lack of appropriate scales or examination couches [26].

Some medical practitioners have expressed uncertainty about broaching the subject of obesity with their patients, citing concerns that such a discussion might prove offensive. However, patients express a desire for their PCPs to initiate discussions about obesity [32, 33] and seek more detailed guidance than the conventional advice of "eat less, move more" [34]. Awareness of this fact may prove beneficial for GPs in overcoming their reluctance to initiate conversations about obesity in this group of patients. Conversely, the reluctance to address this topic may be attributed to negative perceptions about the treatment of this group of patients. Our research indicates that medical practitioners who do not engage in discussions about obesity with patients with obesity are more likely to hold the view that these patients are more prone to laziness than others. Physicians' beliefs, particularly regarding low self-efficacy in influencing weight loss, lack of treatment effectiveness, and patient resistance, have been shown to reduce their involvement in obesity treatment [35].

In our study, doctors who stated that they consistently address obesity in their interactions with patients living with obesity demonstrated a greater proclivity to assert their familiarity with the requisite skills for initiating such conversations, the appropriate vocabulary and terminology to employ in order to avoid stigmatizing the patient's concerns, and the requisite medical expertise to conduct visits to this group of patients. It is possible that this is due to the fact that those with knowledge and communication skills were better placed to discuss the topic of body weight than doctors who lacked such expertise. This may also be supported by the finding that PCPs who had never addressed obesity in a conversation with a patient living with obesity felt that they lacked the knowledge and skills to motivate these patients for treatment. This relationship was demonstrated in a study by Freinkel et al., in which more than half (53.8%) of the surveyed general practitioners showed low proactivity in their practice in terms of weight management. Lack of knowledge was identified as the most common reason why they avoided offering treatment to their patients with obesity, with a particularly high prevalence among less proactive PCPs [36].

Clinical and practical implications

The findings of our study, which assessed the self-perceived communication skills of doctors in initiating conversations with patients regarding obesity, indicated that the majority of doctors lacked confidence in their abilities to conduct such conversations in a non-stigmatizing manner and to motivate patients to change. It is thus evident that these areas would benefit from further training.

The majority of doctors lacked the strong confidence to assert that they possessed the requisite medical knowledge to engage in discussions with patients with obesity. In a study of 1,168 American primary care providers, physicians who did not prescribe drugs to treat obesity were more likely than prescribers to indicate that they lacked the necessary resources to refer patients, lacked the time to treat obesity, were not up to date on obesity treatment methods, and had concerns and lacked knowledge about drug safety. Consequently, the researchers in this study emphasized the need to include obesity in undergraduate and postgraduate curricula [27]. There are a number of guidelines in place regarding the conduct of conversations during a visit with a patient living with obesity. In addition, specific tips have been put forward on the use of language to alleviate the stigma of obesity in the healthcare system [37]. A literature review [38], also identified which interventions contribute to improving the identification and referral of patients with obesity by PCPs to obesity treatment centers. These were found to be: increasing knowledge about obesity and a higher priority for weight control in primary care offices; as well as improving communication and trust between doctors and obesity treatment centers.

Notwithstanding the availability of explicit guidelines, there is a dearth of training opportunities for medical practitioners. In our study, nearly half of the surveyed physicians had not received any training in communicating with patients living with obesity. Only a minority of respondents indicated that the issue had been addressed in a course for specialization or in classes during their studies. Among those who received training, it was typically provided during a conference. This highlights the necessity of incorporating communication with patients diagnosed with obesity into the postgraduate training curricula of healthcare professionals.

All actions that can increase the chances of treatment and its effectiveness among patients living with obesity are extremely important, considering the fact that obesity is the most common modifiable risk factor related to the long-term health of patients [39]. Research on the attitudes, knowledge and skills as well as actual practices of the frontline clinicians working with patients living with obesity will allow the creation of adequate education and training programs that will fill the gaps described above in this area.

Conclusion and implications

In conclusion, we found that PCPs mostly did not have negative attitudes towards patients living with obesity. However, they should not be part of healthcare at all, especially considering that if these are explicit attitudes, the impact would be even greater if we took into account the implicit attitudes. Among those who held negative attitudes, there was a tendency to refrain from addressing the issue during a medical visit and to claim a lack of knowledge and communication skills in treating this group of patients. The study demonstrates the necessity for education on this topic in both undergraduate and postgraduate training. It is crucial to implement activities that will enhance the knowledge and skills of primary care providers in the field of communication during visits with patients living with obesity. These activities should aim to motivate patients to alter their lifestyle and adopt more effective treatment methods for obesity-related diseases. Additionally, they should facilitate the transformation of negative attitudes by reducing stereotypes and prejudices. Furthermore, activities at the local and governmental levels should be conducted to alleviate the numerous barriers that impede the treatment of these patients.

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Author contributions
Designed the study and the outline of the article– I.D., A.D., T.P. Methodology - A.D., I.D., Collecting the data and statistical analysis– external company. Literature review- I.D., A.D., Visualisation- I.D., A.D., All authors read and approved the final manuscript.

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Data availability
The data that support the findings of this study are not openly available due to reasons of sensitivity and are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate
We confirm that research and a research survey were approved by a Bioethics Committee of Medical University of Warsaw (reference number AKBE/12/2024). The study was conducted in accordance with the principles described in the Declaration of Helsinki.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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