

Stigmatization of patients with obesity in the healthcare system: a study of discrimination by medical staff

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ABSTRACT

Introduction: Obesity is a chronic disease with a complex etiology, leading to excessive accumulation of adipose tissue. Its treatment is challenging, and the absence of effective therapy results in complications that place a significant burden on the healthcare system. The stigmatization of obesity is rooted in misconceptions, biases, and stereotypes, which hinder weight reduction efforts and contribute to negative psychological, health-related, and social outcomes.

The aim of this study was to examine the occurrence of stigmatization and discrimination against patients with obesity by healthcare personnel.

Materials and methods: The study was conducted using a questionnaire consisting of demographic questions and items assessing attitudes toward obesity and experiences with the stigmatization of obese patients. The survey was carried out among 148

employees of medical facilities located in the Silesian Voivodeship. The collected data were analyzed using Microsoft Excel software.

Results: Most respondents reported neutral emotions toward obese patients. Nearly half had witnessed situations in which an obese patient was subjected to discriminatory behavior, although respondents did not perceive such incidents as widespread. Despite existing biases, the vast majority of healthcare personnel expressed a willingness to collaborate with patients with excessive body weight.

Conclusions: The study revealed the presence of certain biases toward patients with obesity. A better understanding of these prejudices and misconceptions may contribute to improved quality of care, which is essential for the effective treatment of excessive body weight.

Keywords: health personnel; obesity; weight prejudice.

INTRODUCTION

Obesity is a chronic disease with a complex etiology, characterized by excessive accumulation of adipose tissue in the body [1]. Excess body weight is a global public health issue, in 2022, there were 890 million adults and 37 million children living with obesity [2].

The primary cause of obesity is an imbalance between energy intake and energy expenditure, compounded by insufficient physical activity. The development of obesity is also influenced by factors such as access to healthcare services, socioeconomic status, genetic predisposition, and environmental conditions. Obesity is a medical condition associated with a wide range of health complications [1]. Moreover, it is a costly disease that places a significant burden on healthcare systems. An analysis conducted by Okunogbe et al. indicated that excess body weight could generate costs approaching 3 trillion USD by the year 2030 [3].

Despite the high prevalence of excess body weight, individuals living with obesity often face various forms of bias across multiple settings, including healthcare [4]. Weight stigma refers to attitudes or behaviors directed toward individuals with obesity that are biased, stereotypical, and discriminatory, often based on inaccurate beliefs. Discrimination against individuals with excess body weight manifests in various behaviors, such

as inappropriate language, insults, and attributing inaccurate traits, e.g., laziness or lack of self-control [5, 6]. Stigmatization of patients with obesity does not support weight reduction. Excessive focus by healthcare personnel on patients' body weight may contribute to social exclusion and feelings of humiliation. Instead of supporting positive outcomes, such stigmatization is associated with adverse psychological, health-related, and socio-economic consequences. Notably, individuals who have experienced discriminatory behaviors are at increased risk of low self-esteem, depression, and a diminished overall quality of life. Experience of weight stigma may also discourage patients with excess body weight from attending regular screenings, adhering to healthcare providers' recommendations, and pursuing weight reduction efforts [4, 5, 6].

The aim of the study was to examine the prevalence of stigma and discrimination against patients with obesity by healthcare professionals.

MATERIALS AND METHODS

The study was conducted in person between June and September 2024. An anonymous questionnaire in Polish was used for data collection. The survey consisted of a demographic section and questions related to perceptions of obesity as well as

experiences with the stigmatization of patients with obesity. The questionnaire used in the study underwent a validation process. During data collection, 10 participants were invited to provide verbal or written feedback regarding any concerns or ambiguities related to the questionnaire. None of the respondents reported objections or reservations. The study group included 148 employees from medical facilities located in the Silesian Voivodeship. A number of public and private healthcare institutions located within the Upper Silesian-Zagłębie Metropolis were contacted. The hospitals, outpatient clinics, and private practices that agreed to participate did so anonymously – no data were collected or disclosed that could allow for the identification of the institutions or their personnel. The questionnaire was completed by physicians, dentists, nurses, midwives, dietitians, radiologic technologists, and paramedics. Participation in the study was voluntary. In the facilities that granted permission for the study, questionnaires were distributed and filled out by the staff. The collected data were analyzed using Microsoft Excel software. In the statistical analyses that considered body mass index (BMI) categories, groups representing class II and class III obesity were excluded due to the presence of only one participant in each.

RESULTS

The characteristics of the study group are presented in Figure 1 and in Tables 1, 2, 3, 4.

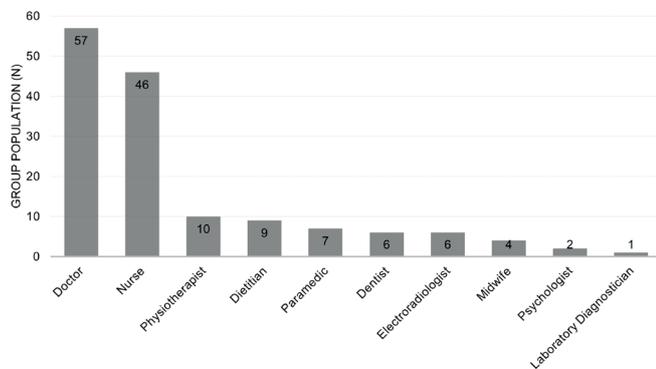


FIGURE 1. Professional groups participating in the study (n = 148)

TABLE 1. Educational background of respondents (n = 148)

Education level	Number of responses (%)
Secondary	13 (8.78)
Higher education (bachelor/master)	95 (64.19)
Postgraduate (PhD, habilitation, etc.)	40 (27.03)

Respondents were asked to identify the causes of obesity. Participants were presented with 12 possible answers, and the question was in a multiple-choice format. The results, categorized by respondents' BMI, are presented in Table 5.

TABLE 2. Age distribution of respondents (n = 148)

Age group	Number of responses (%)
22–31	38 (25.68)
32–41	30 (20.27)
42–51	40 (28.38)
52–61	28 (18.92)
62–71	8 (5.41)
72–81	2 (1.35)

TABLE 3. Calculated body mass index (BMI) of respondents (n = 148)

BMI category	Number of responses (%)
Underweight	5 (3.38)
Normal	75 (50.68)
Overweight	54 (36.49)
Obesity class I	12 (8.11)
Obesity class II	1 (0.68)
Obesity class III	1 (0.68)

TABLE 4. Work experience of respondents (n = 148)

Work experience	Number of responses (%)
Up to 1 year	7 (4.73)
2–5 years	26 (17.57)
5–10 years	24 (16.22)
10–15 years	25 (16.89)
More than 15 years	66 (44.59)

Another multiple-choice question concerned the emotions experienced by the participants in relation to individuals with obesity and their interactions with them. The responses are presented in Figure 2. The question also included an option to provide an open-ended answer (“other”). In this category, respondents reported the following emotions:

- contempt (n = 4),
- hostility (n = 3),
- a sense of superiority (n = 3),
- fear of damaging medical equipment (n = 1).

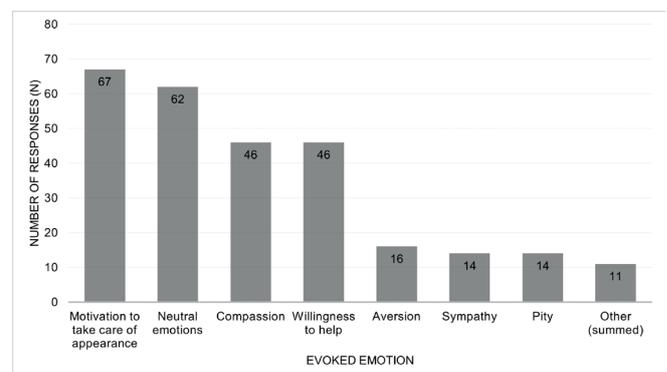


FIGURE 2. Emotions elicited in healthcare workers by patients with obesity (n = 148)

TABLE 5. Perceived causes of obesity according to study participants, categorized by body mass index (n = 146)

Selected cause	Underweight (%)	Normal (%)	Overweight (%)	Obesity class I (%)	Total n (%)
Lack of self-discipline and perseverance	3 (3.70)	40 (49.38)	31 (38.27)	7 (8.64)	81 (100.00)
Positive energy balance	4 (4.21)	48 (50.53)	37 (38.95)	6 (6.32)	95 (100.00)
Sedentary lifestyle	5 (4.39)	61 (53.51)	43 (37.72)	5 (4.39)	114 (100.00)
Laziness	3 (5.08)	27 (45.76)	26 (44.07)	3 (5.08)	59 (100.00)
Comorbidities (e.g., hypothyroidism)	4 (4.21)	43 (45.26)	39 (41.05)	9 (9.47)	95 (100.00)
Medications (e.g., antidepressants, antipsychotics)	2 (2.63)	36 (47.37)	32 (42.11)	6 (7.89)	76 (100.00)
Genetic factors and predispositions	3 (3.75)	39 (48.75)	32 (40.00)	6 (7.50)	80 (100.00)
Excess consumption of sweet or salty snacks	1 (1.05)	48 (50.53)	38 (40.00)	8 (8.42)	95 (100.00)
Emotional eating (e.g., stress, sadness)	3 (3.61)	40 (48.19)	32 (38.55)	8 (9.64)	83 (100.00)
Slow metabolism	1 (2.08)	24 (50.00)	18 (37.5)	5 (10.42)	48 (100.00)
Lack of time to prepare healthy meals	1 (1.75)	25 (43.86)	26 (45.61)	5 (8.77)	57 (100.00)
Low level of nutritional knowledge	2 (3.13)	33 (51.56)	27 (42.19)	2 (3.13)	64 (100.00)
Other causes of positive energy balance	0 (0.00)	1 (100.00)	0 (0.00)	0 (0.00)	1 (100.00)
So-called eating on the go, processed food consumption, advertising and trends (e.g., birthday parties at McDonald's)	0 (0.00)	0 (0.00)	1 (100.00)	0 (0.00)	1 (100.00)
Easy access to tasty, high-calorie, processed food	0 (0.00)	0 (0.00)	1 (100.00)	0 (0.00)	1 (100.00)

Respondents were asked whether they had witnessed situations in which patients with obesity experienced stigmatizing behaviors within healthcare facilities. This was a single-choice question with possible answers “yes” or “no”. The collected responses, categorized by respondents’ self-reported BMI, are presented in Figure 3. Those who answered affirmatively were subsequently asked to indicate which inappropriate behaviors by healthcare staff toward patients with obesity they had observed. This follow-up question allowed multiple responses, and the results are shown in Figure 4. An option for an open-ended response (“other”) was also provided. In this category, respondents reported the following:

- inadequate adaptation of equipment/facilities to the needs of patients with obesity, e.g., the size of chairs in blood collection rooms,
- failure to provide necessary medical services without informing the patient,
- lack of understanding of underlying mechanisms, exemplified by recommendations such as “you need to lose weight” or “please reduce your body mass”,
- patient not fitting into the computed tomography scanner due to lack of appropriate equipment.

Healthcare workers were asked whether they believed that discrimination against patients with obesity receiving healthcare services is a common phenomenon. The obtained responses are presented in Figure 5.

The next question concerned the possibility of participating in training related to health issues associated with obesity. It was a single-choice question. The collected data, broken down by the BMI values of healthcare professionals, are presented in Figure 6.

Questions 22–38 were presented in tabular form using a 4-point scale, where:

- 1 indicates strongly disagree,
- 2 indicates somewhat disagree,
- 3 indicates somewhat agree,
- 4 indicates strongly agree.

The table included statements concerning the opinions and attitudes of medical personnel toward patients with obesity. The collected responses are presented in Table 6.

DISCUSSION

Stigmatization and discrimination of patients with obesity are widespread phenomena and may lead to numerous consequences for both mental and physical health [5]. For this reason, it is important to examine healthcare personnel’s attitudes toward patients with obesity. According to the respondents, the main causes of obesity include: a sedentary lifestyle (118 responses), excessive consumption of sweet or salty snacks (99 responses), a positive energy balance (98 responses), comorbidities (98 responses), and emotional eating in response to negative emotions (87 responses). Similar findings were reported by Foster et al. in a study on physicians’ attitudes toward obesity. According to the surveyed physicians, the primary causes of obesity included low levels of physical activity, excessive caloric intake, and a diet high in fat [4].

Obesity is a condition with a multifactorial etiology, resulting from a combination of genetic, social, and cultural factors, and is primarily caused by a long-term excess in caloric intake. Other contributing factors include low levels of physical activity

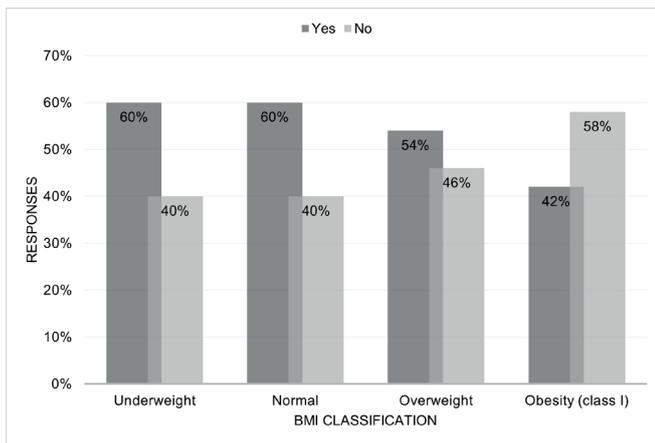


FIGURE 3. Observation of discriminatory behaviors towards patients with obesity (n = 146)

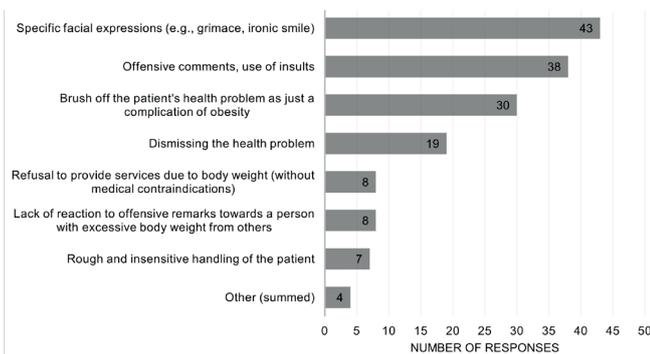


FIGURE 4. Examples of observed discriminatory behaviors towards patients with obesity (n = 148)

and the use of certain medications [1]. The response patterns observed in the present study are generally consistent with current scientific knowledge. However, it is concerning that some respondents identified a low level of nutritional knowledge (68 responses) and laziness (61 responses) as causes of obesity. These findings suggest the presence of a degree of bias or prejudice toward obesity and patients with obesity.

Respondents were asked about the emotions evoked in them by patients with obesity. The most frequently reported emotions included: motivation to take care of one's own appearance (68 responses), neutral emotions (64 responses), compassion (47 responses), willingness to help (47 responses), and aversion (16 responses). The least commonly selected emotions were hostility (3 responses), a sense of superiority (3 responses), and contempt (4 responses). These results indicate a predominance of neutral emotional responses. However, it is important to emphasize that no group of patients should elicit negative emotions among healthcare professionals. Feelings such as contempt or aversion may suggest bias among respondents and can contribute to discriminatory experiences for patients [4]. Similar findings were reported in a study by Sińska et al., in which 70% of surveyed nurses and 76% of physicians stated that patients with obesity elicited neutral emotions in them. Furthermore, participants in that study most frequently reported emotions such as willingness to help, compassion, concern for their own appearance or health, sympathy, and a sense of helplessness. The least commonly indicated emotions included contempt, hostility, and a sense of superiority [6].

TABLE 6. Attitudes and opinions of medical personnel toward patients with obesity (n = 148)

Statement	Number of responses	Number of responses	Number of responses	Number of responses
	1	2	3	4
I am willing to work with patients with obesity	6	27	59	56
I prefer working with patients of normal weight	36	37	45	30
People with obesity have less knowledge about human nutrition	29	55	43	21
People with obesity lead a less active lifestyle compared to those of normal weight	11	21	63	53
People with obesity do not take care of their health	27	54	42	25
People with obesity do not care about their physical appearance	32	60	37	19
I treat patients with obesity worse compared to patients of normal weight	97	31	10	10
People with obesity are treated worse by medical personnel than those of normal weight	40	64	31	13
Patients with obesity are more likely to experience discrimination	21	45	58	24
Cooperation with a patient with obesity is more difficult than with a patient of normal weight	19	33	60	36
A patient with obesity is less likely to follow medical advice	15	56	55	22
A patient with obesity is less likely to follow dietary recommendations	8	33	79	28
Most health problems in people with obesity will "disappear" once their excess body weight is reduced	24	44	65	15
People with obesity are just as intelligent as those of normal weight	8	8	46	86
People with obesity are not lazy	16	54	49	29
Patients with obesity are a burden on the Polish healthcare system	20	47	51	30
Patients with obesity require longer consultations/treatment compared to those of normal weight	13	30	63	42

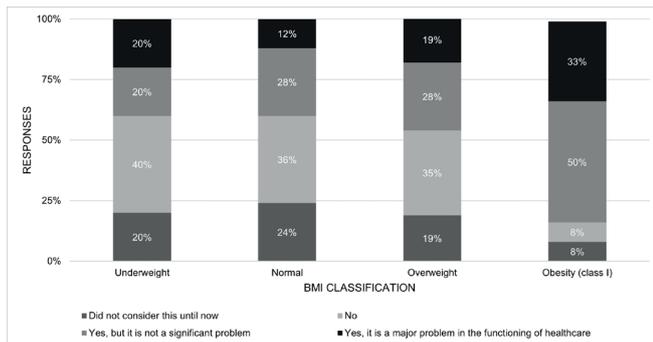


FIGURE 5. Assessment of the perception of discrimination against patients with obesity within the healthcare system (n = 146)

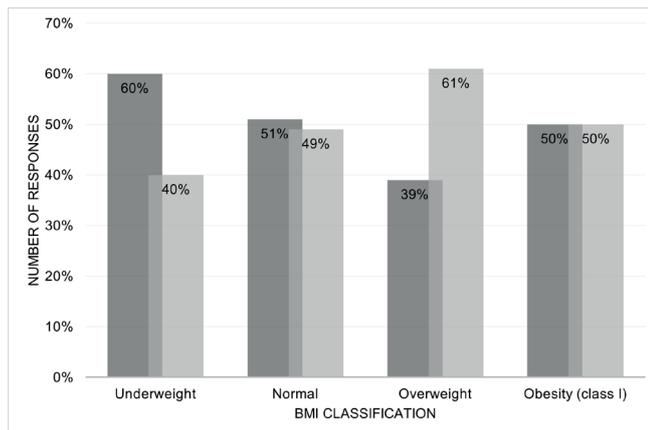


FIGURE 6. Availability of training for healthcare personnel on the care of patients with obesity (n = 146)

Nearly half of the surveyed healthcare professionals (44%) reported witnessing situations in which a patient with obesity experienced discriminatory behavior. This result is concerning, as any form of discrimination or stigmatization is an undesirable phenomenon within the healthcare system. Similar findings were reported by Sobczak and Leoniuk, where 48.4% of healthcare personnel stated that they had witnessed situations in which a patient with obesity was subjected to discriminatory behaviors [7]. A study by Huizinga et al. focusing on physicians' attitudes toward patients with obesity demonstrated that individuals with higher BMI were more frequently treated with a lack of respect due to their body weight [8]. In the present study, respondents who had witnessed discrimination against patients with obesity most frequently indicated the following behaviors as indicative of discrimination: specific facial expressions (43 responses), offensive remarks and name-calling (38 responses), attributing the patient's health problem solely to obesity-related complications (30 responses), and trivializing the patient's health concerns (19 responses). Again, similar findings were reported by Sobczak and Leoniuk, where the most commonly observed behaviors in the comparison group included facial grimaces by healthcare staff and inappropriate comments [7].

Healthcare professionals were asked whether, in their opinion, discrimination against patients with obesity who use healthcare services is a common phenomenon. A total of 34% of respondents believed that it is not a frequent occurrence,

while 29% indicated that, although such discrimination does occur, it is not considered a significant issue. Similar findings were reported by Sobczak and Leoniuk, in whose study 30% of respondents viewed discrimination against patients with obesity as a minor problem [7]. These results highlight the need to implement training programs focused on the care of patients with a high BMI. Such initiatives are essential for ensuring the provision of high-quality healthcare services and for preventing discouragement among patients with obesity from seeking medical attention [9].

Participants of the present study were asked whether they had access to training on health problems related to obesity and on appropriate approaches to patients with obesity. More than half of the healthcare professionals responded affirmatively (n = 80). However, no information was obtained regarding whether respondents actually take advantage of this opportunity, as the questionnaire did not include a question on this issue. The topic of stigma and bias toward specific patient groups, including those living with obesity, should be addressed early in the medical education process. Medical students and practicing healthcare professionals should be educated on the genetic, social, and environmental determinants of body weight. Furthermore, training and education programs should incorporate elements aimed at fostering empathy, which would help medical professionals better understand patients' lived experiences and significantly improve the quality of care provided [10, 11].

Due to bias against obesity, some healthcare professionals may be reluctant to engage in cooperation with patients living with obesity. However, our study demonstrated that the vast majority of respondents were willing to work with patients with higher body weight. Similar findings were reported by Sińska et al., where 85% of surveyed physicians and nurses indicated their willingness to provide care for patients with obesity [6].

More than half of the respondents believe that individuals with obesity lead less physically active lifestyles. This finding aligns with the beliefs of healthcare professionals reported in other studies, where low levels of physical activity were identified as one of the main causes of obesity [12]. Moreover, the vast majority of participants in the study by Sińska et al. also believed that individuals with obesity are physically inactive. An interesting discrepancy can be observed regarding medical professionals' opinions on the nutritional knowledge of patients with obesity. A considerable proportion of respondents in the present study (n = 86) did not agree that people with obesity have less knowledge about nutrition. In contrast, most participants in the study by Sińska et al. believed that individuals with obesity lack sufficient knowledge of human nutrition [6].

The majority of healthcare professionals participating in the present study disagreed with the statements that individuals with obesity do not care about their health or physical appearance. Similar findings were reported by Sińska et al. in a study involving physicians and nurses [6].

Opinions of healthcare personnel were also analyzed regarding the statement: "Obese patients are more likely to experience discrimination". Most participants agreed with this statement. A study conducted among nurses by Tannenberger and

Ciupitu-Plath supports the validity of this view. Respondents completed a questionnaire incorporating a subscale from the Antifat Attitudes questionnaire. The study revealed the presence of bias toward patients with obesity, with these attitudes being particularly pronounced among nurses who believed that body weight is a matter of personal choice and under individual control [12].

The vast majority of study participants (n = 108) agreed with the statement that patients with obesity are more likely to disregard dietary recommendations. Similar results were observed in a study conducted by Obara et al. among dietetics students. The students' opinions were evaluated using hypothetical clinical cases involving patients with lactose intolerance – both with obesity and with normal body weight. The findings of this study suggest that patients with obesity are perceived as less likely to adhere to dietary advice [13].

The surveyed group unanimously stated that individuals with obesity are just as intelligent as individuals with normal body weight (n = 134). Contrasting results were found in a study conducted by Schwartz et al. among bariatric specialists. This study employed the Implicit Associations Test and a self-report questionnaire assessing attitudes and personal experiences. The results revealed significant implicit biases among participants. Furthermore, the respondents strongly endorsed stereotypes, attributing negative traits – including a lack of intelligence – to individuals with obesity [14].

The majority of medical personnel in the current study (n = 107) agreed with the statement that patients with obesity require longer consultations or treatment compared to individuals with normal body weight. Similar findings were reported by Obara et al., where surveyed dietetics students also believed that patients with obesity require more time during consultations [13].

CONCLUSIONS

The present study revealed the presence of certain biases among the surveyed medical personnel toward patients with obesity.

A better understanding of these prejudices and misconceptions regarding individuals with obesity may contribute to improving the quality of medical services. This is essential

for providing appropriate care to patients and for effectively addressing the issue of excessive body weight.

REFERENCES

1. Panuganti KK, Nguyen M, Kshirsagar RK. Obesity. Treasure Island (FL): StatPearls Publishing; 2021.
2. Obesity and overweight. World Health Organization. 2024. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight> (29.06.2025).
3. Okunogbe A, Nugent R, Spencer G, Ralston J, Wilding J. Economic impacts of overweight and obesity: current and future estimates for eight countries. *BMJ Global Health* 2021;6(10):e006351. doi: 10.1136/bmjgh-2021-006351.
4. Foster GD, Wadden TA, Makris AP, Davidson D, Sanderson RS, Allison DB, et al. Primary Care Physicians' Attitudes about Obesity and Its Treatment. *Obes Rev* 2021;11:1168-77. doi: 10.1038/oby.2003.161.
5. Phelan SM, Burgess DJ, Yeazel MW, Hellerstedt WL, Griffin JM, van Ryn M. Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obes Rev* 2015;16(4):319-26. doi: 10.1111/obr.12266.
6. Sińska B, Turek M, Kucharska A. Czy mamy do czynienia ze stygmatyzacją otyłych pacjentów na oddziałach szpitalnych? Ocena postaw personelu medycznego. In: Kropiwek K, Szala M, editors. *Nauki społeczne i humanistyczne wobec wyzwań współczesności*. Lublin: Fundacja na rzecz promocji nauki i rozwoju TYGIEL; 2015.
7. Sobczak K, Leoniuk K. Attitudes of Medical Professionals Towards Discrimination of Patients with Obesity. *Risk Manag Health Policy* 2021;14:4169-75.
8. Huizinga MM, Cooper LA, Bleich SN, Clark JM, Beach MC. Physician Respect for Patients with Obesity. *J Gen Intern Med* 2009;24(11):1236-9. doi: 10.1007/s11606-009-1104-8.
9. Usta E, Bayram S, Altınbaş Akkaş Ö. Perceptions of nursing students about individuals with obesity problems: Belief, attitude, phobia. *Perspect Psychiatr Care* 2020;57:777-85. doi: 10.1111/ppc.12613.
10. Moudatsou M, Stavropoulou A, Philalithis A, Koukoulis S. The Role of Empathy in Health and Social Care Professionals. *Healthcare (Basel)* 2020;8(1):26. doi: 10.3390/healthcare8010026.
11. Talumaa B, Brown A, Batterham RL, Kalea AZ. Effective strategies in ending weight stigma in healthcare. *Obes Rev* 2022;23(10):e13494. doi: 10.1111/obr.13494.
12. Tanneberger A, Ciupitu-Plath C. Nurses' Weight Bias in Caring for Obese Patients: Do Weight Controllability Beliefs Influence the Provision of Care to Obese Patients? *Clin Nurs Res* 2017;27(4):414-32. doi: 10.1177/1054773816687443.
13. Obara AA, Vivolo SRGF, Alvarenga MDS. Weight bias in nutritional practice: a study with nutrition students. *Cad Saude Publica* 2018;34(8):e00088017. doi: 10.1590/0102-311X00088017.
14. Schwartz MB, Chambliss HO, Brownell KD, Blair SN, Billington C. Weight bias among health professionals specializing in obesity. *Obes Res* 2003;11(9):1033-9. doi: 10.1038/oby.2003.142.