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EMPATHY AS A FACTOR ASSOCIATED WITH PREJUDICE TOWARD OBESE PEOPLE. STUDY CONDUCTED ON POLISH STUDENTS POPULATION

**Empatia jako czynnik związany z uprzedzeniami wobec osób otyłych.
Badanie przeprowadzone na populacji polskich studentów**

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Abstract

Stigma and discrimination toward obese persons are pervasive and pose numerous consequences for their psychological and physical health. Psychological effects of discrimination are known to have enduring impact on self-esteem, level of depression and severely influence body image satisfaction. The aim of that study was to examine relationship between level of empathy and level of anti-fat biases among young people in their early adulthood.

The study was conducted with undergraduate students of pedagogy of the Faculty of Social Sciences of the University of Warmia and Mazury in Olsztyn. The study group consisted of 240 people ($M_{age} = 21.07$, $SD_{age} = 1.28$, range from 19 to 25 years). The applied research tool was the Anti-Fat Attitudes Scale and the Empathic Sensitiveness Scale.

The three empathy dimensions were significantly negatively correlated with anti-fat attitudes, i.e. empathic concern ($r = -0.823$, $p < .001$), personal distress ($r = -0.833$, $p < .001$), and perspective taking ($r = -0.839$, $p < .001$). There were significant effects of level of anti-fat attitudes on empathy scores, i.e. empathy concern $F(2,237) = 212.732$, $p < 0.001$, personal distress $F(2,237) = 220.535$, $p < 0.001$, and perspective taking $F(2,237) = 204.646$, $p < 0.001$.

Level of empathy proved to be significantly negatively correlated with anti-fat attitudes. Results obtained in the present study support the idea of designing and applying educational programs in the field of obesity stigma prevention. It is important to identify the nature of anti-fat biases in order to help to improve the daily functioning and well-being of individuals affected by obesity.

Keywords: obesity, empathy, anti-fat biases, Anti-Fat Attitudes Scale, Empathic Sensitiveness Scale.

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Streszczenie

Stygmatyzacja i dyskryminacja osób otyłych są wszechobecne i powodują liczne konsekwencje dla ich zdrowia psychicznego i fizycznego. Wiadomo, że psychologiczne skutki dyskryminacji mają trwały wpływ na samoocenę, poziom depresji i poważnie wpływają na zadowolenie z obrazu własnego ciała. Celem pracy było zbadanie zależności między poziomem empatii a poziomem uprzedzeń wobec osób otyłych wśród młodzieży w okresie wczesnej dorosłości.

Badanie przeprowadzono wśród studentów pedagogiki studiów licencjackich Wydziału Nauk Społecznych Uniwersytetu Warmińsko-Mazurskiego w Olsztynie. Grupa badana liczyła 240 osób ($M_{wiek} = 21,07$, $SD_{wiek} = 1,28$, zakres od 19 do 25 lat). Zastosowanym narzędziem badawczym była *Skala uprzedzeń wobec osób otyłych* oraz *Skala wrażliwości empatycznej*.

Trzy wymiary empatii były istotnie ujemnie skorelowane z postawami antyfatycznymi, tj. empatyczna troska ($r = -0,823$, $p < .001$), osobista przykrość ($r = -0,833$, $p < .001$) i przyjmowanie perspektywy ($r = -0,839$, $p < .001$). Stwierdzono istotne związki pomiędzy poziomem uprzedzeń wobec osób otyłych a wymiarami empatii, tj. empatycznej troski $F(2,237) = 212,732$, $p < 0,001$, osobistej przykrości $F(2,237) = 220,535$, $p < 0,001$ i przyjmowania perspektywy $F(2,237) = 204,646$, $p < 0,001$.

Poziom empatii okazał się istotnie ujemnie skorelowany z uprzedzeniami wobec osób otyłych. Wyniki uzyskane w niniejszym badaniu wspierają ideę projektowania i stosowania programów edukacyjnych w zakresie zapobiegania stygmatyzacji otyłości. Ważne jest określenie charakteru uprzedzeń wobec osób otyłych, aby przyczynić się do poprawy ich codziennego funkcjonowania i dobrostanu.

Słowa kluczowe: otyłość, empatia, uprzedzenia wobec osób otyłych, Skala Uprzedzeń Wobec Osób Otyłych, Skala Wrażliwości Empatycznej.

Introduction

Negative cultural stereotypes about overweight and obese persons are known to be widespread (Obara-Gołębiowska, 2016; Falkner et al., 1999; Puhl & Heuer, 2009; Puhl & Latner, 2007). Anti-fat biases leading to discrimination of obese people may take the form of teasing or social rejection. That can have long-term effects on self-esteem (Grilo et al., 1994; Van den Berg et al., 2002; Obara-Gołębiowska, 2021). Weight-based prejudice also may result in unequal opportunities in education, employment, and health care (Puhl & Brownell, 2001; Fulton & Srinivasan, 2021; Sobczak & Leoniuk, 2021). Besides, being the target of body mass discrimination may contribute to disordered relationships with food and exercise (Zhang et al., 2021; Rich & Evans, 2005). Research suggests that social stressors such as weight stigma and discrimination influence cortisol levels (Carr et al., 2007; Dickerson et al., 2004; Cedillo et al., 2020). That, in turn, may lead to health problems such as weight gain, chronic dieting, decreased dietary quality, compromised immunity or skeletal integrity, and increased cardiovascular risk (Aphramor, 2005, 2008; Tomiyama, 2014; Tomiyama et al., 2014; Schevey et al., 2014). Negative attitudes towards overweight and obese peers appear already in the third year of age (Van den Berg, 2002; Ai & Lee, 2021). Due to comparisons with others, already several-year-olds are aware of being fat. Moreover, they develop a negative stereotype of a “fatso” which, combined with their own obesity, leads to a decrease in self-esteem. Among older children, the tendency for negative perception of peers with excessive weight increases. This is confirmed by results of research on children aged 4–11

years. They used descriptions of obese persons such as: ugly, selfish, lazy, stupid, liar, dirty, unfair, and devious. Moreover, persons with excessive weight were also discriminated as partners of team games, and especially as leaders of such groups (Puhl & Brownell, 2001). Girls are particularly sensitive to negative comments regarding their appearance, and they believe they will be more popular if they lose weight. Moreover, due to their different appearance or weaker physical condition, obese children are often mocked, rejected by their class, and adopt the role of the clown or scapegoat of the class more frequently (Spahlholz et al., 2016).

Surprisingly, it is also the case that teachers themselves, who are insufficiently sensitive to social attitudes that foster the stigma of obesity, often unknowingly perpetuate negative stereotypes toward overweight youth (Kenney et al., 2015; Kenney et al., 2017). Results from the studies indicated the presence of explicit and implicit weight bias among teachers of physical education (Fontana et al., 2017; Lau et al., 2018). An example is a research involving 115 high school teachers, in which 20% said that students weighing above the norm are dirtier, more emotional, have more family conflicts and are less successful than their slim peers. Of course, many teachers do not associate obesity with common stereotypes. However, more than half of them believe that it is a form of compensation caused by a lack of parental love or attention while 43% believe that most people feel uncomfortable interacting with obese people. In contrast, another current study revealed a strong implicit bias against children who weigh too much, among 180 students - future physical education teachers. Among other things, the students were convinced that obese people lack strong willpower. What's more, such biases deepened as the students advanced in their physical education studies (Neumark-Sztainer, 2005). Also qualitative study by Obara-Gołębiowska and Sebastyańska-Targowska (2014) showed negative attitude of pedagogical science students towards obese children. The study included 68 women in early adulthood. There was used a qualitative method with a projective technique, using drawings depicting the image of an obese boy and a thin boy. The study participants were divided into two equal groups. Group one received a drawing depicting a slim child while group two received a drawing with an image of an obese child. The female students were tasked with attributing to the obese or thin child characteristics related to, among other things, their socio-school competence. Content analysis of the statements made by the female participants of the study indicated a strong focus by the female students on the body image of an obese boy as opposed to a thin one. In addition, when speaking about a child with excess weight, the women often used common stereotypes about obese people.

The obesity stigma and the resulting discrimination lead to social isolation and contribute to devalued social identity of overweight people. Stress and low self-esteem increase the probability of emotional overeating and adopting a sedentary lifestyle. Those behaviours perpetuate obesity and create an additional risk of somatic disease caused by weight gain (Jackson & Steptoe, 2018).

One strategy that has received recent attention for reducing prejudice toward stigmatized groups, e.g. obese people group, is empathy induction (Batson & Ahmad, 2009; Obara-Gołębiowska, 2017). Empathy can be described as a capacity to understand, share, and respond with care to others. It plays an important role in much of human social interaction. Baron-Cohen, Wheelwright (2004) explain that empathy is the spontaneous ability to take the perspective of, and understand the feelings of another person. It is also the ability to use emotional responses appropriate to one's emotional state. Empathy is conceptually similar to sympathy, however it concentrates more specifically on one's capacity to relate to or to take the perspective of another person (Gapinski et al., 2006). Davis (1983), Coke et al. (1978), Pizarro (2000) claim that feelings of empathy for stigmatized others may occur when individuals perceive themselves to be like a stigmatized person individuals or take the perspective of a stigmatized person. Additionally there is also evidence that feeling empathy for a member of a stigmatized group improves attitudes toward the group as a whole (Batson et al., 1997).

There is lack of studies focused on factors contributing to anti-fat biases among polish population. Preliminary qualitative research of Obara-Gołębiowska and Sebastyańska-Targowska (2014) has shown the prevalence of prejudice against obese people among students of pedagogy. As we know, these are students who in the future will be professionally involved in teaching and raising children, including those who are overweight and obese. Therefore the aim of the study presented below is to examine relationship between level of empathy and level of anti-fat biases among young people in their early adulthood- students of pedagogy.

Material and methods

Study design

The study will be quantitative in nature, with the use of accurate and reliable tools examining the variables: the level of empathy and the level of prejudice against obese people in the group of respondents – pedagogy students. In order to conduct the present study, the Anti-Fat Attitudes Scale (AFAS) originally constructed by Morrison and O'Connor (1999) was previously adapted to Polish conditions (Obara-Gołębiowska & Michałek-Kwiecień, 2018). In line with the literature, we assumed that people with higher levels of empathy would have lower levels of prejudice against obese people. In this study, we will use a correlation model to determine the strength and direction of the relationship between the research variables under study.

Participants

The study was conducted with undergraduate students of the Faculty of Social Sciences of the University of Warmia and Mazury in Olsztyn. The research group was recruited from those attending classes in Health Education and Health Promotion. The inclusion criteria for the study were the age of early adulthood: 18-35 years and the field of study of pedagogy. The criteria excluding from the research include failure to meet the basic criteria of inclusion in the research and lack of consent for participation in the examination. The group consisted of 240 people ($M_{\text{age}} = 21.07$, $SD_{\text{age}} = 1.28$, range from 19 to 25 years), 87.9% of the participants were females and 12.1% males. Gender disparities reflect the number of women and men studying pedagogy. The mean BMI amounted to 21.99 ($SD = 2.98$). All participants gave written consent to participate and the study was approved by the Commission on the Ethics of Scientific Research of University of Warmia and Mazury, Olsztyn, Poland: Decision no. 3/2019.

Applied research tools

Polish adaptation of the Anti-Fat Attitudes Scale (AFAS) (Obara-Gołębiowska & Michałek-Kwiecień, 2018) originally constructed by Morrison and O'Connor (1999) contains 5 items that measure negative attitudes toward overweight individuals. These items are 1. Fat people are less sexually attractive; 2. I would never date a fat person; 3. On average, fat people are lazier than thin people; 4. Fat people only have themselves to blame for their weight; 5. It is disgusting when a fat person wears a bathing suit at the beach. Answers are measured on a 5-point Likert-type scale with responses ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores denote stronger endorsement of anti-fat attitudes. The scale was translated from English into Polish by three persons acting independently: a sworn translator of English and two psychologists who were holders of Cambridge certificates of proficiency in English. Their translations were compared and analysed to develop a single Polish version of the scale. The scale was then translated from Polish into English by three persons. The exploratory factor analysis supported the development of the Polish version of the Anti-Fat Attitudes Scale with a one-dimensional structure modelled on the original version of the scale (factor loading ranged from .71 to .85). The confirmatory factor analysis validated the one-factor structure of the tool with high values of GFI and AGFI (above .95) and an acceptable value of RMSEA (RMSEA = .07). The results of the analysis revealed that satisfactory stability was maintained over a 4-week period. The validity criterion was confirmed based on correlations with the constructs that were theoretically linked to this phenomenon. The Polish version of the AFAS is a reliable and valid diagnostic tool which can be used to measure negative attitudes towards overweight individuals (Obara-Gołębiowska & Michałek-Kwiecień, 2018). In the current study, the Cronbach's alpha was .97.

To measure dispositional empathy the Empathic Sensitiveness Scale (Kaźmierczak et al., 2007) was used, which is the Polish paraphrase of Interpersonal Reactivity Index (Davis, 1980). The Scale assesses three empathy dimensions – empathic concern (other-oriented) refers to feelings of “oriented toward others”: the tendency to sympathize and empathize with people affected by failure; and personal distress (self-oriented) measures “self-oriented feelings”: the tendency to experience fear, anxiety, annoyance or discomfort in response to strong negative experiences (suffering) of other people; and perspective taking (cognitive, other-oriented) reflects the ability and the tendency to spontaneously adopt another’s point of view in everyday life situations. It measures the ability to “go beyond one’s own self” when communicating with other people.. The SWE consists of 28 items rated on a 5-point Likert scale. The higher the score for this constructs indicates the higher the level of empathy. In the current study, the Cronbach’s alpha for three dimensions ranged from .80 to .86.

Statistical method

The statistical analyses were performed with the software package SPSS 24 PL. In the first step, descriptive statistics and bivariate correlations were calculated. Next, the evaluate the differences on empathy dimension reported by young adults participants were classified into the three anti-fat attitudes levels (using ranking method), i.e. high level, medium level, and low level. Finally, an analysis to examine differences on anti-fat attitudes reported by participants classified into the levels of empathy an Analysis of Variance (ANOVA) was performed. Tukey’s post hoc was used to test the differences among groups.

A priori power analysis for ANOVA with fixed effects was performed using G-Power software (Faul et al., 2007). We estimated large effect size .40 to obtain a priori 95% power and a *p* value of .05. The required sample size was 102.

Results

The means and standard deviations of all measured variables are presented in Table 1.

Table 1
Means and standard deviations of the study variables

Variable	<i>M</i>	<i>SD</i>
AFAS	11.47	6.02
Empathy		
Empathic concern	38.33	6.98
Personal distress	27.95	4.96
Perspective taking	31.45	5.61

Note: *n* = 240.

Table 2
Correlations among study variables

Variable	1.	2.	3.	4.
1. AFAS	—			
2. Empathic concern	-0.823***	—		
3. Personal distress	-0.833***	0.882***	—	
4. Perspective taking	-0.839***	0.921***	0.887***	—

Note: $n = 240$, *** $p < .001$

Pearson correlation coefficients among variables are shown in Table 2. As expected, the three empathy dimensions were significantly negatively correlated with anti-fat attitudes, i.e. empathic concern ($r = -0.823$, $p < .001$), personal distress ($r = -0.833$, $p < .001$), and perspective taking ($r = -0.839$, $p < .001$).

To evaluate the differences on empathy dimension reported by young adults classified into the three anti-fat attitudes levels (using ranking method) an analysis of variance (ANOVA) was performed. Results indicated that there were significant effects of level of anti-fat attitudes on empathy scores, i.e. empathy concern $F(2,237) = 212.732$, $p < 0.001$, personal distress $F(2,237) = 220.535$, $p < 0.001$, and perspective taking $F(2,237) = 204.646$, $p < 0.001$. Tukey’s post hoc comparisons demonstrated that all groups scored statistically significantly different from each other. Specifically, the participants with the highest scores on three empathy dimensions are characterized by the lowest anti-fat attitudes than individuals with the higher anti-fat attitudes scores (see Table 3).

Table 3
The level of anti-fat attitudes and empathy dimensions (ANOVA)

	Anti-fat attitudes						$F(2,237)$
	Low ($n = 79$)		Medium ($n = 83$)		High ($n = 78$)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Empathic concern	44.14 ^a	3.67	39.99 ^b	4.25	30.66 ^c	4.60	212.732***
Personal distress	32.29 ^a	2.61	28.88 ^b	2.53	22.56 ^c	3.60	220.535***
Perspective taking	36.13 ^a	2.96	32.73 ^b	3.47	31.45 ^c	5.61	204.646***

Note: *** $p < .001$, a mean is significantly different from another mean if they have different superscripts

Discussion

It is known that obesity is complex in its etiology as well as its consequences (Imes & Burke, 2014; Joslyn & Haider-Markel, 2019). Also there is conclusive evidence of the pervasive and damaging effects of weight stigma in Western society (Vallejo-Torres et al., 2018; Gloor & Puhl, 2016; Campos-Vasquez & Gonzalez, 2020). Weight bias plays an important role in everyday life and brings serious consequences directly threatening health and life of large part of the human population (Vartanian et al., 2016; Armstrong et al., 2022; Machado et al., 2021; Flint et al., 2016). Psychological effects of discrimination are known to have enduring impact on self-esteem, level of depression and severely influence body image satisfaction (Spaholz et al., 2016; Puhl & Heuer, 2009; Jackson & Steptoe, 2018). Behaviors resulting from psychological effects of weight bias include among others binge eating, social isolation and the delay or avoidance of seeking much-needed future healthcare (Alegria Drury & Louis, 2002; Phelan et al., 2015; Fruh et al., 2016).

According to studies concentrating on weight stigma prevention, empathy has a key role in motivating pro-social behaviour and providing bases for moral development (Baron-Cohen, Wheelwright, 2004). Bateson and Ahmad (2009) state that empathy improves intergroup relations. Empathy is also thought to have an impact on inhibiting aggression. According to Allport et al. (1979) people high in empathy are more tolerant of others. Results of the study presented in current article also showed correlation between level of empathy and prejudice towards obese people. Obviously, one must consider that a specific group of people took part in the study. They were students of pedagogy, i.e., people whose future work will focus on helping and supporting other people. This may be a factor that causes the level of empathy in these individuals to be different from that of other research groups. As expected, level of empathy proved to be significantly negatively correlated with anti-fat attitudes. For instance, the participants with the highest empathy scores were characterized by the lowest anti-fat attitudes. This result was obtained for all measured dimensions of empathy. Thus, the level of prejudice against obese people decreased with the ability to take the perspective of the other's point of view and the ability to go beyond one's own self when communicating with other people. Lower levels of prejudice against obese people co-occurred with an increase in the tendency to sympathize and empathize with people affected by failure. Also, the propensity to experience fear, anxiety, annoyance or discomfort in response to other people's strong negative experiences (suffering) was higher in respondents characterized by higher tolerance toward overweight people.

Similar results were obtained by Pettigrew, Troop (2008). Their studies showed that empathy mediated the connection between intergroup contact and prejudice. Results obtained in the present study support the idea of designing and applying educational programs in the field of obesity stigma prevention (Aranda & McGreevy, 2014;

Pories & Rose, 2017). According to Gapinski et al. (2006), educational interventions in society reduce obesity bias. Crandal (1994) revealed that it is possible to increase tolerance toward obese people by education about the biological, genetic, and uncontrollable reasons for obesity. Wiese et al. (1992) improved attitudes towards obese people by combining efforts to induce empathy and education about the uncontrollable causes of obesity. Thibodeau et al. (2017) highlighted empathy as a mechanism through which positive narratives affect obesity-related attitudes. Obara-Golebiowska (2016) showed that an educational intervention focused on the development of more tolerant, empathetic, and understanding attitudes towards obesity is an efficient way of reducing bias against persons with excessive weight. Also studies conducted by Batson et al. (2002) or Batson and Ahmad (2009) proved that experimentally enhanced empathy decrease prejudice towards obese people. Based on the literature on the subject (Gapinski et al., 2006; Batson, Ahmad 2009; Obara-Golebiowska, 2016) and the study presented in this article, it appears that it would be worthwhile to include in this type of intervention also a group of people who in the future will have a very strong influence on the development and upbringing of children and adolescents. Such a group could be, for example, students of teaching or pedagogical studies. Empathy is an important social competence. The ability to empathize with the situation of the other person makes it possible to be more open to others. It thus plays an important role in personal and social life. The profession of an educator requires the ability to relate to other people, to understand the emotions they experience. This is especially important in the relationship with children and adolescents, who expect kind understanding and support. Thus, in the subjects promoting the otherwise very important issues related to health education or health promotion, it is also worth including the topic of tolerance towards somatic dissimilarity, which is, *inter alia*, obesity. It should be borne in mind that, as previously mentioned, counteracting the stigma of obesity is one of the basic factors that help people overcome their excess weight.

However, there are some limitations to the present study that should inform future work. Future research covering equal number of male respondents would be an interesting follow-up of the present study. It is known that the level of empathy can be different due to gender. Also randomized selection of people to research groups would contribute to greater objectivity of the obtained research results. Future studies should also include students of other fields of study such as medicine, nursing, physiotherapy. We know that these are the fields of study that educate professionals who in the future will deal with the assistance and treatment of people with excessive body weight. It would also be interesting to check the level of empathy and prejudice against obese people among students of the first and last years of studies. Likewise, the collection of information on additional socio-demographic variables could provide information on the level of empathy and bias against the respondents.

Conclusion

It is important to identify the nature of anti-fat biases in order to challenge it and help to improve the daily functioning and well-being of individuals affected by obesity. The study showed that the level of prejudice against obese people is significantly related to the level of empathy. Negative attitudes of pedagogy students towards obesity decreased as the level of empathy increased. The results obtained suggest that it is worth including pedagogical science students in a program of educational intervention focused on the development of more tolerant, empathetic, and understanding attitudes towards obesity. The findings are presented in the context of their theoretical background and practical application. Conclusions resulting from the conducted research may contribute to scientific disciplines such as health education, pedagogy and psychology.

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