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Breaking WEIGHT BIAS

Promoting Health without harming through digital training tools

Project number:

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Descriptive statistics report

Babeș-Bolyai University

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Demographic Information

Descriptive data were generated for all variables. The first set of questions aimed to identify demographic characteristics of the participants (N=217). Regarding the country of of the participants residence (Figure 1), more than a half of them (N=117, 53.9%) were from Greece (EL), 22.1% Romania (RO) (N=48), 13.4% UK (EN) (N=29), 6.9% Poland (PL) (N=15), and 3.7% The Netherlands (NL) (N=8). The mean age of the subjects was 37 years old (Figure 2); most of the participants were women, with a percentage of 84.9%, followed by 15.1% men and 2.3% who preferred not to say (Figure 1).

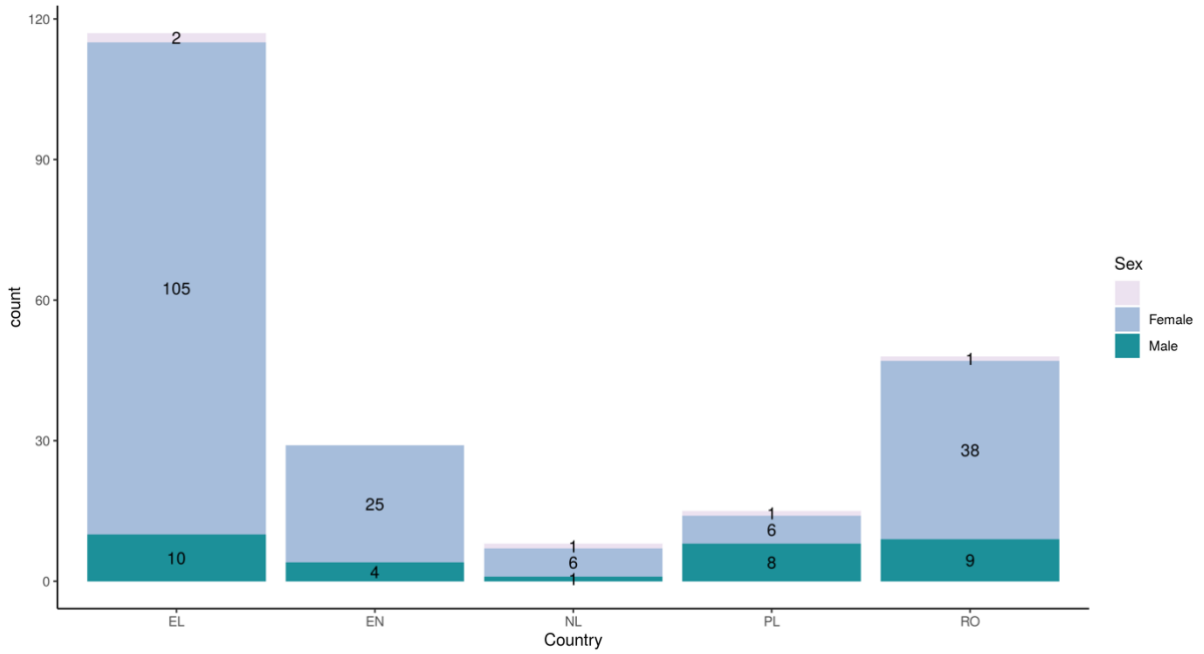


Figure 1. Bar chart with the count of respondents and gender from each participant country

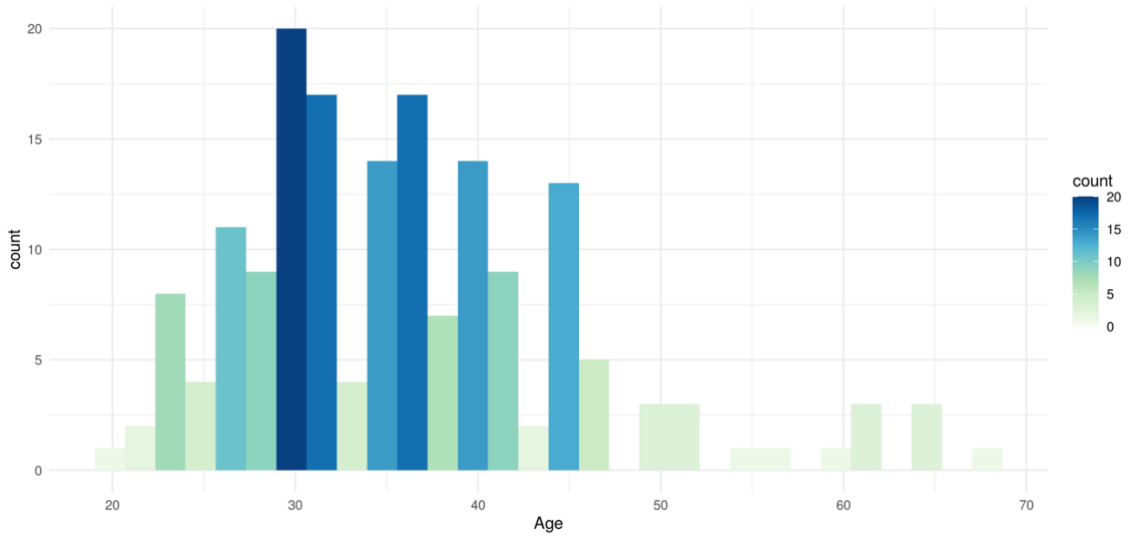


Figure 2. Count for each age group of the respondents

The next question asked the participants what is their field of study (Figure 3) and the answers (N=212) were as follows: “Nutrition science and dietetics” (35.5%), “Medical sciences” (22.6%), “Clinical psychology and psychotherapy (16.1%), “Nursing” (9.2%), “Other” (6%), “Social work” (4.1%), “Occupational science and occupational therapy (3.2%), “Pharmaceutical” (2.3%) and “Physical therapy and kinesiology (0.9%).

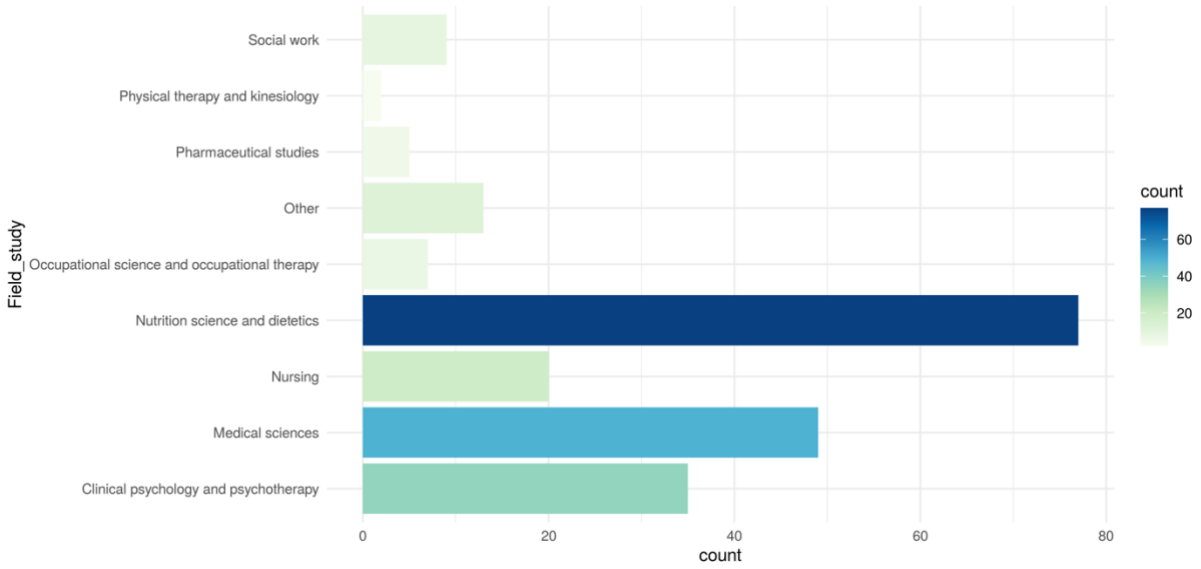


Figure 3. Field of study of respondents

The statistical tests showed that the top three answers related to the highest degree or level of education completed by the participants (N=214) was Master’s Degree with a percentage of 43.4%, followed by Bachelor’s Degree (37.7%) and Doctoral Degree (11.8%) (Figure 4).

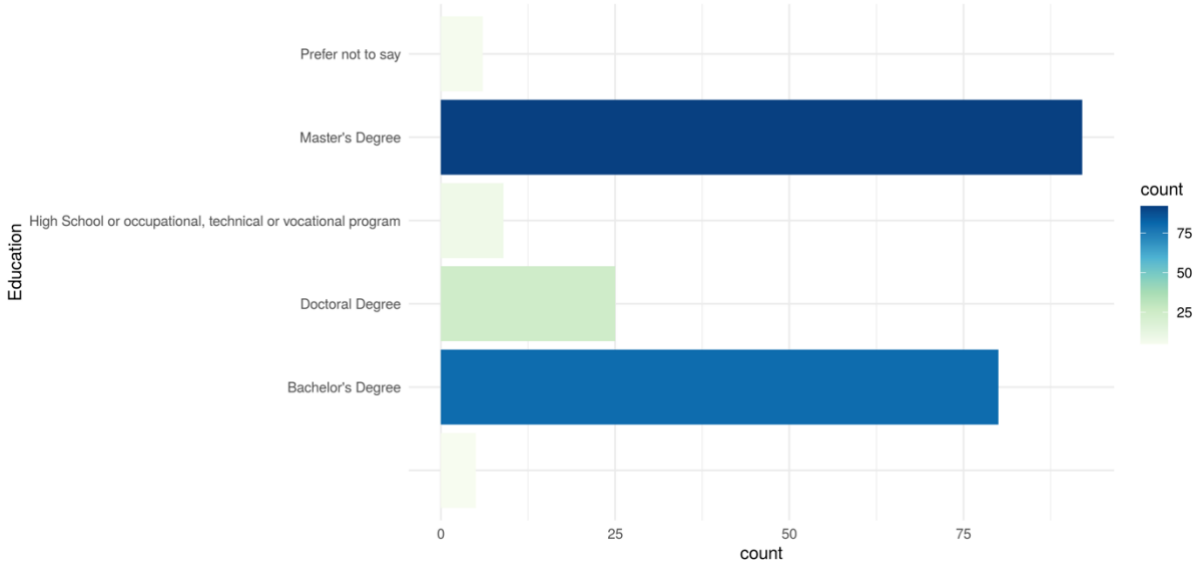


Figure 4. Highest degree or level of education completed of respondents

Regarding the current practice setting of the participants (N=214), 52.3% of them specified that they are working in a private practice, followed by 17.8% working in a hospital, 10.7% working within a nonprofit organization, 7.5% university/teaching, 6.5% other settings, and 5.1% working within a clinic (Figure 5).

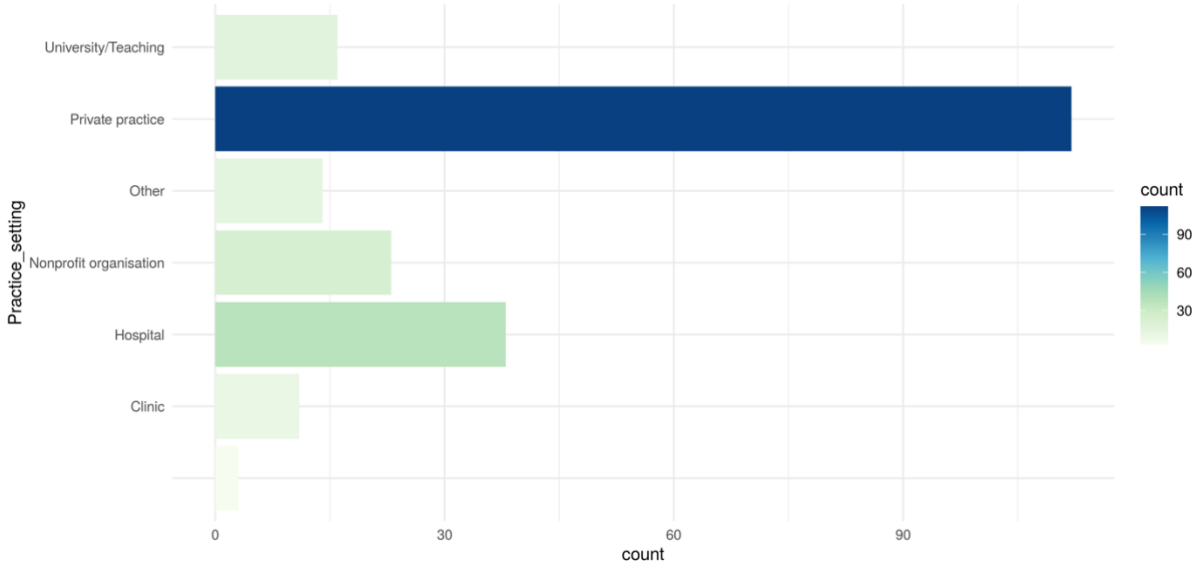


Figure 5. Current practice setting of respondents

Personal experience of participants[1]

When asked whether they are treating patients that suffer from obesity (N=209), 70.8% of the respondents reported that they get to work with this type of patients in their work settings (Figure 6).

Out of the 212 people who answered the question, half of them (50.5%) indicated that they have been teased because of their weight, 32.1% responded with "No" and 17.5% of them responded with "Maybe". The following question was a similar one, asking the participants if they have ever been treated unfairly because of their weight (N=215) and the answers show that 46% of them were not affected in this direction, 31.2% expressed that they were affected, and 22.8% answered with "Maybe". Discrimination was also brought into the discussion (N=215) and the answers indicated that 47% of the respondents were not discriminated against because of their weight, but 28.4% mentioned they were and 24.7% answered with "Maybe" (Figure 6).

Participants were also asked if they have ever received any training/information around the impact of weight stigma on health (N=216) and seemingly, the percentages between the ones who did receive and the ones who did not receive were really close – 47.7% did, respectively 52.3% did not (Figure 6).

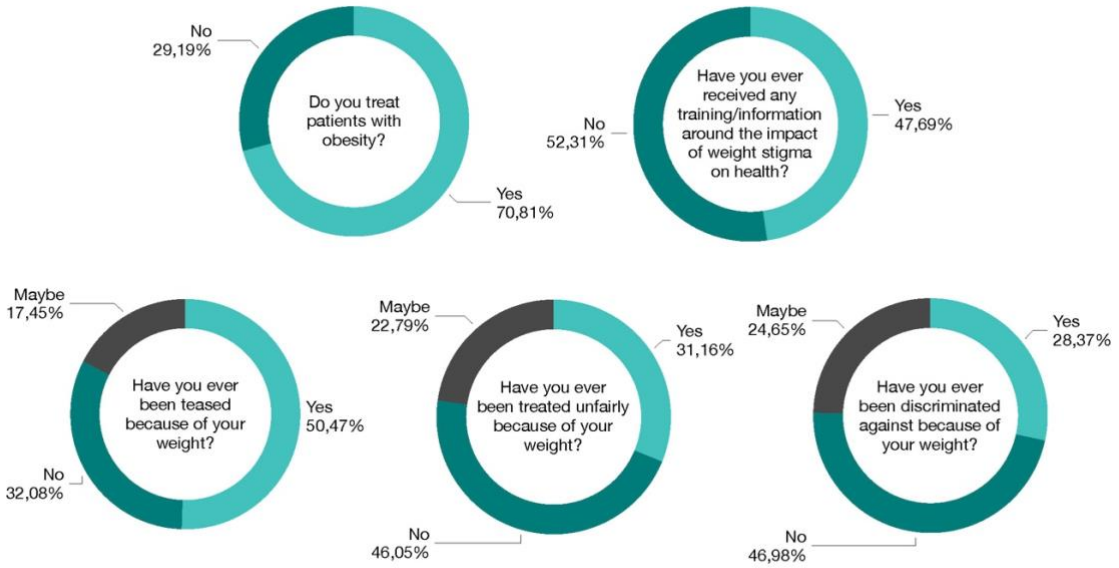


Figure 6. Personal experience of participants

[1] Adapted from: Puhl, R. M., Latner, J. D., King, K. M., & Luedicke, J. (2014). Weight bias among professionals treating eating disorders: attitudes about treatment and perceived patient outcomes. *International Journal of Eating Disorders*, *47*(1), 65-75.

Fat Phobia Scale - Short Form[2]

The participants received a list of 14 pairs of adjectives sometimes used to describe people suffering from overweight or obesity. For each adjective pair, they had to select the corresponding number on a scale from 1 to 5 closest to the adjective that they feel best describes their feelings and beliefs. For a better statistical analysis, the scale was recoded as follows: 1-2, 3, and 4-5.

On this measure, a considerable percentage of participants agreed that obese individuals have, like food (67,4%), overeat (60%), low self-esteem (55,1%), are insecure (48.8%), are slow (42,2%), have poor self-control (39,7%), are inactive (35,8%), have no endurance (35,4%) and have no will power (31%) (Figure 7).

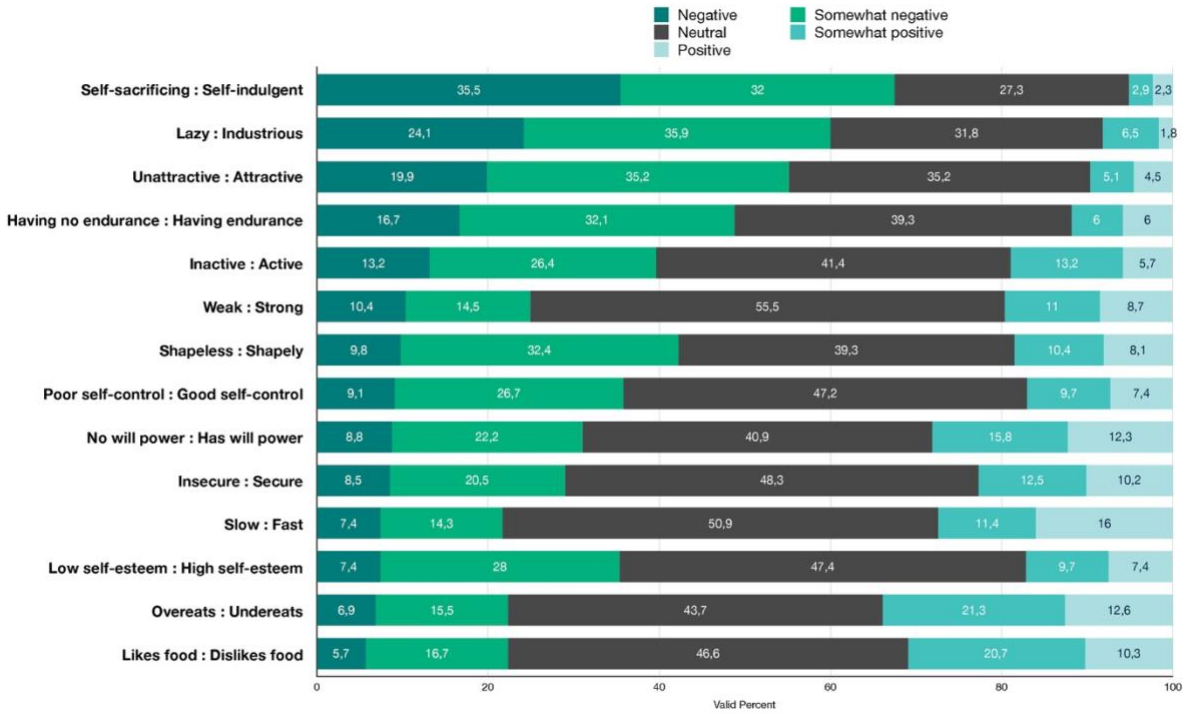


Figure 7. Percentages to the responses to the Fat Phobia Scale Short Form

LAZY/INDUSTRIOUS (N=175) Half of the participants (50.9%) are neutral with regard to choosing whether people suffering from overweight and obesity are more likely to be lazy or industrious. Another 21.7% consider that people suffering from overweight or obesity are rather lazy than industrious, while 27.4% of them consider those people more industrious.

NO WILL POWER/HAS WILL POWER (N=171) With regard to people suffering from overweight or obesity having will power or not, 40.9% of the respondents are neutral, 31% feel that they have no will power, and 28.1% consider that those people have will power.

ATTRACTIVE/UNATTRACTIVE (N=176) Attractiveness was another variable taken into account and almost half of the participants have indicated that they are neutral (48.3%), while 22.7% consider people suffering from overweight or obesity attractive, and 29% of them consider them unattractive.

[2] Adapted from: Bacon JG, Scheltema KE, Robinson BE. Fat phobia scale revisited: the short form. International journal of obesity. 2001 Feb;25(2):252-7.

GOOD SELF CONTROL/ POOR SELF CONTROL (N=174) Regarding self-control, 41.4% of the respondents are neutral, 18.9% consider that people suffering from overweight or obesity have a good self-control, while 39.6% feel that they have a poor self-control.

FAST/SLOW (N=173) When asked whether they consider people suffering from overweight or obesity fast or slow, 39.3% of the respondents chose to be neutral, 18.5% consider them being fast, while 42.2% consider them being rather slow than fast.

HAVING ENDURANCE/HAVING NO ENDURANCE (N=175) A small percentage of participants (17.1%) indicated that people suffering from overweight or obesity have endurance; while 35.4% feel like they have no endurance. The majority of 47.4% remained neutral to this question.

ACTIVE/INACTIVE (N=176) Participants consideration whether people suffering from overweight or obesity are rather active than inactive, showed that 35.8% of them feel that those people are rather inactive than active, whilst only 17.1% consider them to be active. A majority of 47.2% were neutral.

WEAK/STRONG (N=174) When it comes to being weak or strong, 31% of the participants consider that people suffering from overweight or obesity are rather strong than weak, 22.4% consider the opposite, and 46.6% of them are neutral.

SELF-INDULGENT/SELF-SACRIFICING (N=173) Only 19.7% of those surveyed reported that people suffering from overweight or obesity are more likely to be self-indulgent. A percentage of 24.9% consider them to be self-sacrificing because of their situation, while 55.5% are neutral.

DISLIKES FOOD/LIKES FOOD (N=172) Food relationship of those suffering from overweight or obesity was also questioned, and the results show that almost two-thirds of the participants (67.5%) consider that these people like food, and only 5.2% consider that they dislike food. There was also a 27.3% who stayed neutral.

SHAPELESS/SHAPELY (N=174) A percentage of 29.3% of the participants perceive people suffering from overweight or obesity shapeless, while 33.9% perceive them to be shapely. The majority of 43.7% are neutral.

UNDEREATS/OVEREATS (N=170) Eating behavior was also questioned and 60% of the participants consider that people suffering from overweight or obesity over-eat, while only 8.3% consider that those people under eat, and 31.8% were neutral about this.

INSECURE/SECURE (N=168) Almost half of those surveyed (48.8%) reported that they consider people suffering from overweight or obesity rather insecure than secure. Only 12% consider people suffering from overweight or obesity secure, while 39.3% of them are neutral.

LOW SELF ESTEEM/HIGH SELF ESTEEM (N=176) Regarding the level of self-esteem, 55.5% of the participants consider that people suffering from overweight or obesity have a low self-esteem; only 9.6% consider otherwise, and 35.2% are neutral.

Universal Measure of Bias-Fat Scale[3]

Afterwards, the participants had to answer 20 questions using this seven-point scale: Strongly agree, Moderately agree, Slightly agree, Neither agree nor disagree, Slightly disagree, Moderately disagree, Strongly disagree (Figure 8). For a better statistical analysis, the scale was recoded as follows: 1-2-3 = agree, 4=neutral, 5-6-7=disagree.

1. "Special effort should be taken to make sure that fat people have the same rights and privileges as other people." – The majority of the participants (82.4%) agree with this statement, while only 6.8% disagree and 10.8% are neutral.
2. "I would be comfortable having a fat person in my group of friends." – 78.8% of those surveyed agreed with this statement, while 9.7% disagree rather than agree, and 11.5% remained neutral.
3. "Fat people have bad hygiene" – 14.7% agree with the statement, 15.8% are neutral, while the majority (69.5%) disagree with it.
4. "I find fat people to be attractive." – With regard to the attractiveness of people suffering from overweight or obesity, 24.5% of them reported that they find those people attractive, 27.4% of them reported otherwise, and 48% were neutral.
5. "Fat people tend towards bad behavior." – Regarding this statement, 68.1% of the participants disagree with, 19.9% are neutral, but there still was a 12% of those surveyed who agree with the fact that people suffering from overweight or obesity tend towards bad behavior.
6. "I would not want to have a fat person as a roommate." – Almost two-thirds (69.9%) of the ones surveyed disagree with the statement, 19.3% neither agree nor disagree, and only 10.8% agree with it.
7. "Fat people are a turn-off." – 16.1% of the participants consider that people suffering from overweight or obesity are a turn-off, 18.9% are neutral and 65.1% disagree with this statement.
8. "I find fat people pleasant to look at." – More than half of the respondents (49.4%) were neutral on this item, while 26.4% agree with it and 24.1% disagree.
9. "Special effort should be taken to make sure that fat people have the same salaries as other people". – The majority of the participants (64.6%) agree with the fact that salaries should not be influenced by people's appearance, 13.7% are neutral and 21.8% disagree with this statement.
10. "Sometimes I think that fat people are dishonest." – 73.2% of the ones surveyed consider people suffering from overweight or obesity rather honest than dishonest and disagree with this statement, but there is still a 10.9% of them that agree with it, while 16% are neutral.
11. "I try to understand the perspective of fat people." – With regard to trying to understand the perspective of people suffering from overweight or obesity, 61% are trying to do it, while 13.4% disagree with the statement and 25.6% are neutral.

[3] Adapted from: Meister, Dalton, "Undergraduate Honors Thesis: Measuring Anti-Fat Bias Among Social Work Students" (2021).

12. “Special effort should be taken to make sure that fat people have the same educational opportunities as other people.” – 59.9% of the participants consider that educational opportunities should be the same for everyone, including people suffering from overweight or obesity, and special effort should be taken in this direction. However, there are 24.4% who disagree with this, and 15.7% who are neutral.
13. “In general, fat people don’t think about the needs of other people.” – The responses showed that 78.6% of the participants disagree with this statement, 13.9% are neutral and 7.5% agree with it.
14. “Fat people are sloppy.” – 68.2% of the people surveyed disagree with the statement, 22.5% are neutral and 9.2% agree with.
15. “I like fat people.” - When asked whether they like people suffering from overweight or obesity, almost half of them (46.8%) stayed neutral, 38.6% of them reported that they do like them, while 14.7% reported that they do not like people suffering from overweight or obesity.
16. “Special effort should be taken to make sure that fat people have the same housing opportunities as other people.” – The choices on this statement showed that 59.1% agree with the fact that people suffering from overweight or obesity deserve the same housing opportunities as other people, while 24% disagree with this and 17% are neutral.
17. “I don’t enjoy having a conversation with a fat person.” – 81.5% of the participants reported that they disagree with this, while 7.5% reported to agree with. 11% are neutral.
18. “I would like having a fat person at my place of worship or community center” – When asked whether they would like to have people suffering from overweight or obesity at their workplace or community center, 44.2% of them said that they would like to, 44.7% stayed neutral and 11.2% disagreed with the statement.

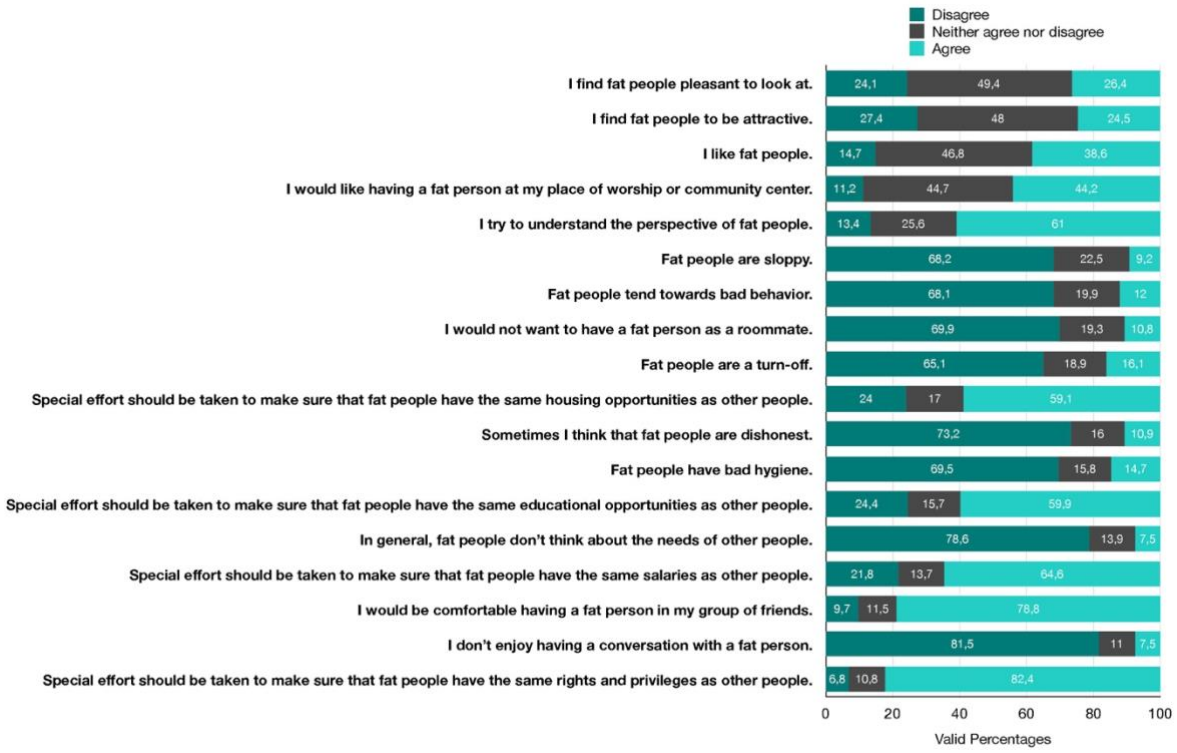


Figure 8. Percentages for the results of the items included in the Universal Measure of Bias - Fat Subscale Adapted Tool

Affective and behavioural reactions towards patients[4]

Further on, the participants had the following case-study: "A 38-year old woman with a body fat content of 44.2% and a body mass index of 38.2 kg/m² was seeking weight and lifestyle improvement services in your healthcare setting. Over the years she had sought several treatment options to control her obesity but with no success. She did not qualify for bariatric surgery."

"The Patient follow-up questionnaire assessed 13 affective and behavioral reactions that the health professional had toward the patient. Health professionals were asked: (a) to judge the health of the patient; (b) how well the patient took care of himself/herself; (c) how self-disciplined they perceived the patient to be; (d) the extent to which the physician would have to be strict; (e) the seriousness of the medical problem; (f) the extent to which they thought seeing this patient would be a waste of their time; (g) the extent to which seeing such patients would result in affinity for their job; (h) the level of patience that they would have for the patient; (i) the extent to which the patient would be annoying; (j) how much personal desire they had to help the patient; (k) the likelihood with which the patient would comply with medical advice; (l) whether the patient would benefit from psychological counseling; and (m) the overall level of positivity toward the patient".

In answering all of these questions, physicians responded on nine-point scales that were anchored by (1)='Not at all', (5)='Some–Somewhat' and (9)='Extremely'. For a better statistical analysis, the scale was recoded as follows: 1-4 = Not at all, 5 = Somewhat, 6-9 = Extremely.

1. "I cannot evaluate the health of the client only based on their weight" – 13.8% not at all, 16.4% some-somewhat, 69.7% extremely.
2. "This client takes care of herself" – 22.4% not at all, 34% some-somewhat, 43.7% extremely.
3. "I believe that this client would benefit from counselling" – 2.5% not at all, 14.3% some-somewhat, 73.1% extremely.
4. "The client is self-disciplined" – 34.4% not at all, 41.6% some-somewhat, 24% extremely.
5. "Level of strictness in the medical advice I'd give" – 44.5% not at all, 24.8% some-somewhat, 30.8% extremely.
6. "Seriousness of the patient's health problem." – 19.2% not at all, 31.8% some-somewhat, 49% extremely.
7. "Seeing this client would feel like a waste of my time" – 89.5% not at all, 7.8% some-somewhat, 2.6% extremely.
8. "This sort of client would make me like my job" – 13.5% not at all, 39% some-somewhat, 47.3% extremely.
9. "Amount of patience I would have" – 3.1% not at all, 13.5% some-somewhat, 83.2% extremely.
10. "Extent to which this client would annoy me" – 84.3% not at all, 12.3% some-somewhat, 3.1% extremely.
11. "Personal desire to help this client" – 2.5% not at all, 7.1 % some-somewhat, 90.3% extremely.
12. "Likelihood that the client would follow my advice" – 16.8 % not at all, 40.9 % some-somewhat, 42.1% extremely.

[4] Adapted from: *Hebl, M. R., and J. Xu. 2001. "Weighing the Care: Physicians' Reactions to the Size of a Patient." International Journal of Obesity 25(8): 1246–52.*

13. “My overall positivity toward the client” – 0.6% not at all, 8.4% some-somewhat, 91% extremely.

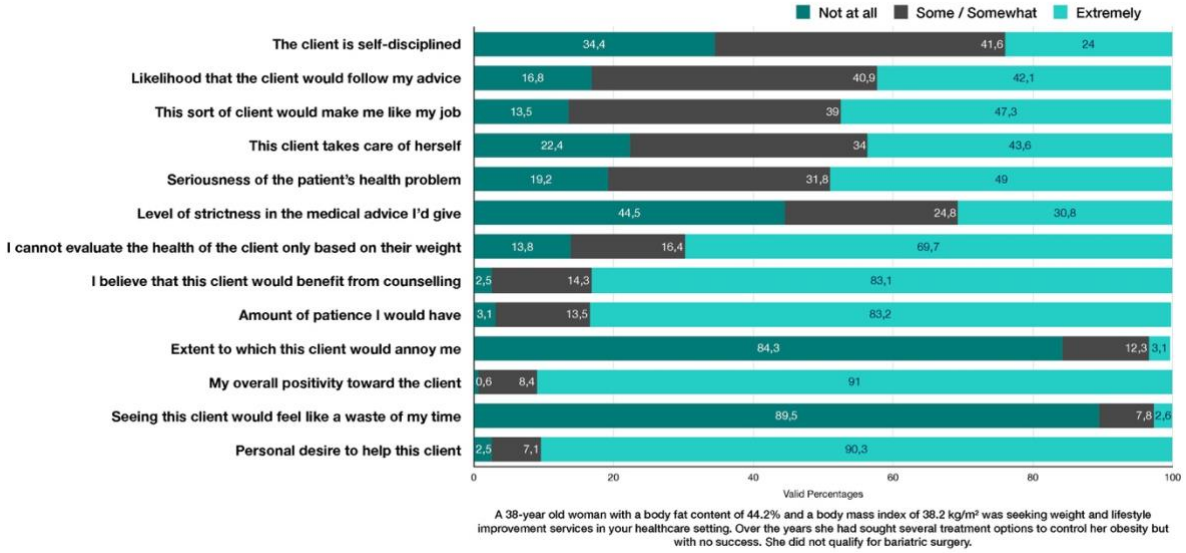


Figure 9. Percentages of the responses to the patient follow-up questionnaire

Attitudes toward obese patients[5]

Next, the participants were asked to indicate their level of agreement on a 5-point Likert scale (ranging from “strongly disagree” to “strongly agree”). For a better statistical analysis, the scale was recoded as follows: 1-2 = disagree, 3=undecided, 4-5=agree.

1. “I often feel frustrated with clients affected by obesity.” – Participants were asked if they often feel frustrated with clients affected by obesity and the majority (71.2%) reported that they do not feel this way, 20.3% of them were undecided and only 8.5% agreed with this statement.
2. “Clients affected by obesity can be difficult to deal with.” – When asked if they feel that people suffering from obesity are difficult to deal with, over half of the participants (54.9%) said that they disagree, 14.4% agreed and 30.7% were undecided.
3. “I feel that it is important to treat clients affected by obesity with compassion and respect.” – The results on this question showed that 6.5% of the participants disagree with it, 9.2% are neutral and 84.3% agreed.
4. “I dislike treating clients affected by obesity.” – 84.3% of those surveyed reported that they do not dislike treating people suffering from obesity, 11.1% were undecided, while 4.6% of them dislike treating those people.
5. “I see no difference between clients affected by obesity and patients who have BMI within the normal range.” – 49.4% of the participants reported that they see no difference between clients affected by obesity and patients who have BMI within the normal range, while 22.3% report otherwise; 28.3% were undecided.

[5] Adapted from: Puhl, R. M., Luedicke, J., & Grilo, C. M. (2014). Obesity bias in training: attitudes, beliefs, and observations among advanced trainees in professional health disciplines. *Obesity*, *22*(4), 1008-1015.

6. “I feel confident that I provide quality care to clients affected by obesity.” - Only a very small number of respondents (2.6%) indicated that do not feel confident that they provide quality care to clients affected by obesity, 17.5% were undecided and 79,9% are confident with the services they provide.
7. “I feel professionally prepared to effectively treat my clients affected by obesity.” – Around 57.5% of the participants felt that they are professionally prepared to effectively treat their clients affected by obesity, while 15% of them did not feel they are prepared enough; 27.5% of them were undecided.
8. “I feel that clients affected by obesity are often non-compliant with treatment recommendations.” – 35.2% of those surveyed mentioned that they do not feel that clients affected by obesity are often non-compliant with treatment recommendations, 37.3% were undecided, while 27.5% agreed with the statement.
9. “I feel that clients affected by obesity lack motivation to make lifestyle changes.” – When asked whether they feel that clients affected by obesity lack motivation to make lifestyle changes, 25.5% agreed with this, 37.9% disagreed and 36.6% were undecided.
10. “Treating clients affected by obesity is professionally rewarding.” - Whilst a minority (10.4%) mentioned that treating clients affected by obesity is not professionally rewarding, 56.5% agreed with the statement and 33.1% were undecided.
11. “Clients affected by obesity tend to be lazy.” – 64.3% of those surveyed disagreed with the fact that clients affected by obesity tend to be lazy, 21.2% were undecided and a small percent of them (14.5%) agreed with this.

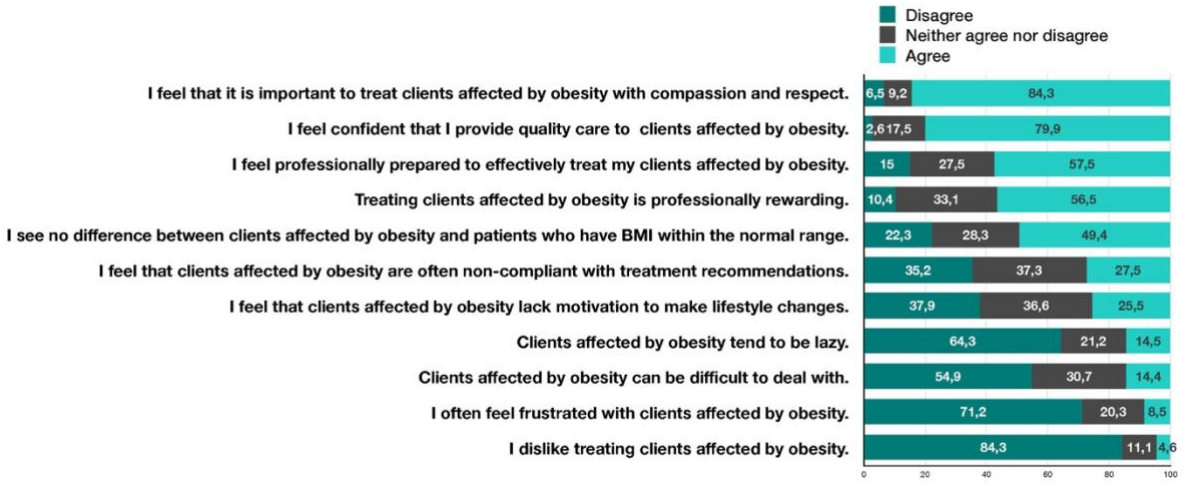


Figure 10. Attitudes toward obese patients

Perceived acceptability of weight bias in the medical setting[6]

Similarly, the participants were asked to indicate their level of agreement on a 5-point Likert scale (ranging from "strongly disagree" to "strongly agree"). For a better statistical analysis, the scale was recoded as follows: 1-2 = disagree, 3=undecided, 4-5=agree.

1. "My colleagues tend to have negative attitudes towards clients affected by obesity." – 46.4% of the participants disagreed with the statement that their colleagues tend to have negative attitudes towards clients affected by obesity, 22.5% were undecided, while 31.1% agreed.
2. "I have heard/witnessed other colleagues making jokes about clients affected by obesity." - When asked whether they have heard/witnessed other colleagues making jokes about clients affected by obesity 32.2% disagreed, 22.1% were undecided, while 45.6% agreed.
3. "It is acceptable to make jokes about clients affected by obesity." – The majority of the participants (91.3%) disagreed with the fact that it is acceptable to make jokes about clients affected by obesity, 2.7% of them were undecided, and there was still a 6% who consider it acceptable.
4. "I have heard/witnessed professors or instructors making negative comments or jokes about clients affected by obesity." – With regard to hearing/witnessing professors or instructors making negative comments or jokes about clients affected by obesity, 38.9% of the respondents replied negatively, 13.4% were undecided, while 47.7% of them reported that they have heard/witnessed such situations.
5. "I have heard/witnessed health care providers making negative comments or jokes about clients affected by obesity." – 34.3% of the ones surveyed disagreed with the fact that they have heard/witnessed health care providers making negative comments or jokes about clients affected by obesity, 15.8% were undecided, while 50% responded positively.
6. "In the medical setting, clients affected by obesity are a common target of derogatory humor by students, residents, and/or attendings. " – 32.2% of the participants reported that they disagree with the statement that in the medical setting, clients affected by obesity are a common target of derogatory humor by students, residents, and/or attendings, 15.8% of them were undecided, and almost half of them (52%) agreed with it.
7. "If a person affected by obesity, it's really their own fault, so it is acceptable to make jokes about their weight." – The majority of the participants (89.9%) disagreed with the fact that it is acceptable to make jokes about their weight under any circumstances, 4.7% of them were undecided and 5.4% agreed.

[6] Adapted from: Puhl, R. M., Luedicke, J., & Grilo, C. M. (2014). Obesity bias in training: attitudes, beliefs, and observations among advanced trainees in professional health disciplines. *Obesity*, *22*(4), 1008-1015.

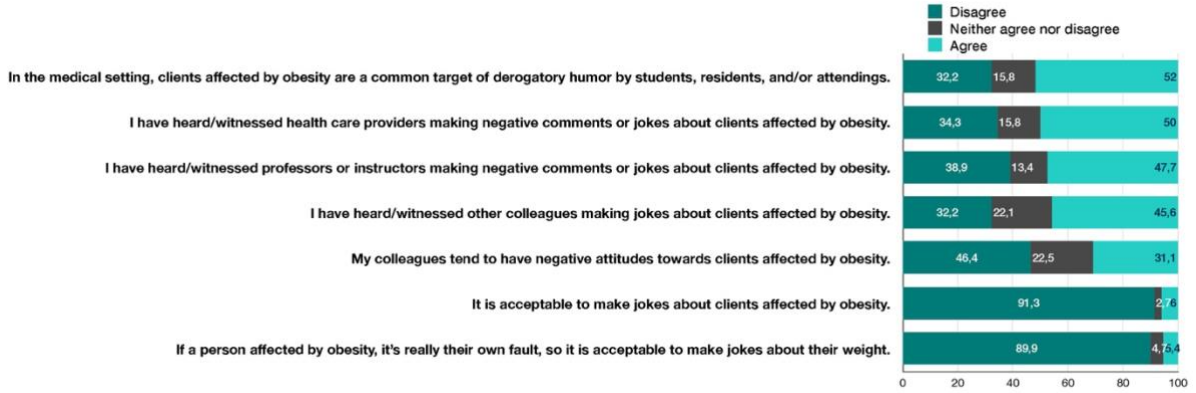


Figure 11. Perceived acceptability of weight bias in the medical setting

Beliefs about Obesity and Weight Loss[7]

Likewise, the participants were asked to indicate their level of agreement on a 5-point Likert scale (ranging from "strongly disagree" to "strongly agree"). For a better statistical analysis, the scale was recoded as follows: 1-2 = disagree, 3=undecided, 4-5=agree.

1. "Obesity is difficult to treat." – 68% of those surveyed reported that they agree with the fact that obesity is difficult to treat, 21.2% of them were undecided, while 10.9% of them do not consider it difficult to treat, so they disagreed with the statement.
2. "Obesity is a disease." – When asked whether they think that obesity is a disease, the majority of them (73.8%) reported that they agree with the statement, 13.5% were undecided, and 12.8% do not consider obesity a disease.
3. "I am more likely to address obesity if the affected person is younger." – The participants were also asked whether they are more likely to address obesity if the affected person is younger and 32.2% of them agreed with this, 34.2% were undecided and 33.6% disagreed with the statement.
4. "Most persons affected by obesity attribute their issue to an external cause rather than an internal cause (e.g., their lack of self-discipline)." – 42.8% of those surveyed consider that most persons affected by obesity attribute their issue to an external cause rather than an internal cause (e.g., their lack of self-discipline), 35.7% were undecided and 21.4% of them disagree with this.

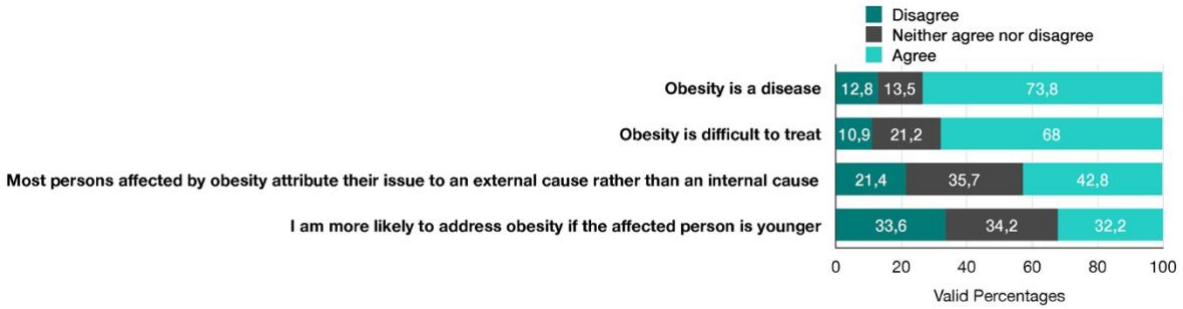
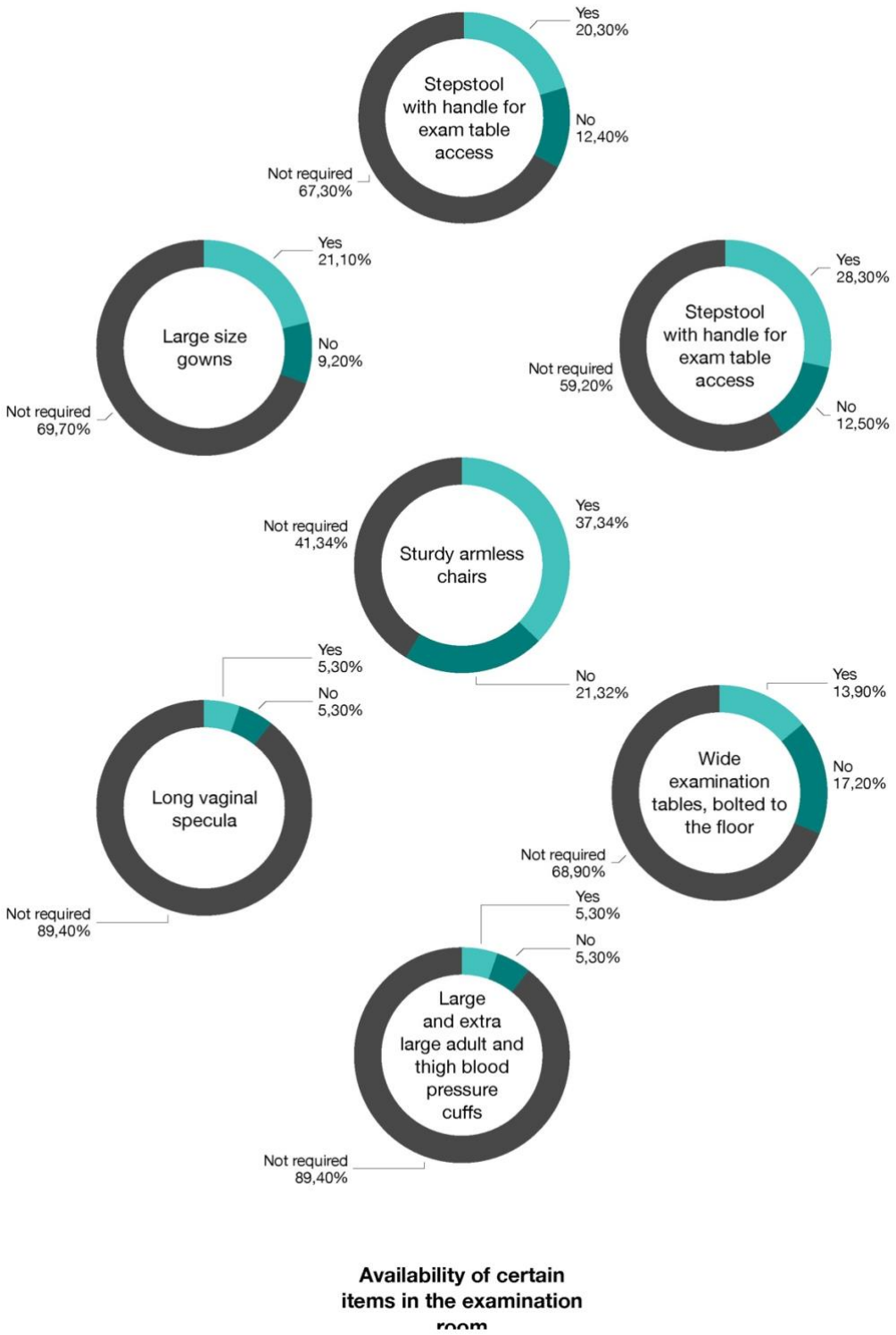


Figure 12. Beliefs about Obesity and Weight Loss

[7] Adapted from: *Forman-Hoffman, Valerie, Amanda Little, and Terry Wahls. 2006. "Barriers to Obesity Management: A Pilot Study of Primary Care Clinicians." BMC Family Practice 7: 1–11.*

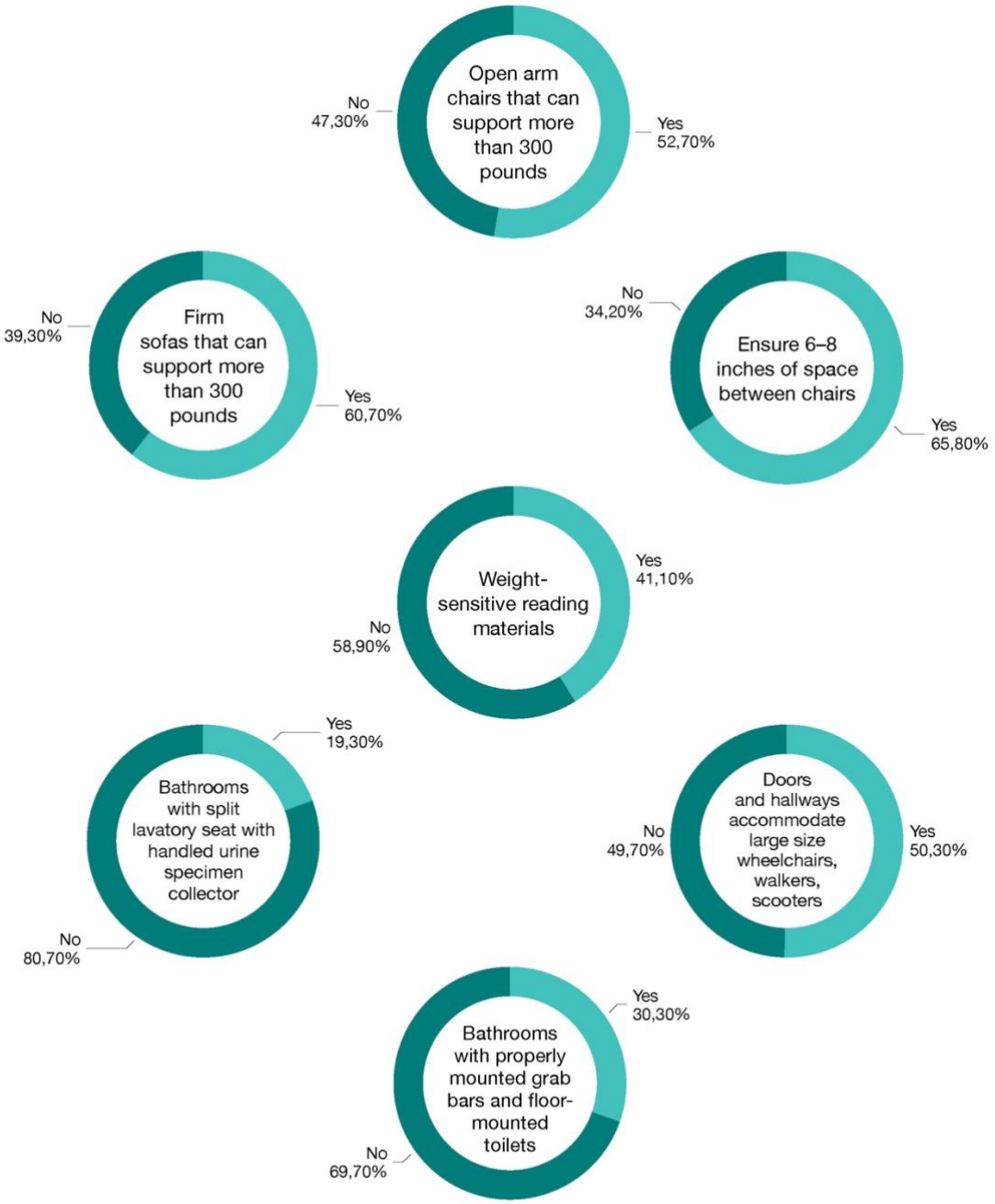
Office Environment for Patients with High Body Weight[8]

Participants were asked to complete the following checklist with the availability of the following items in the exam room, and the results can be found in the table below:



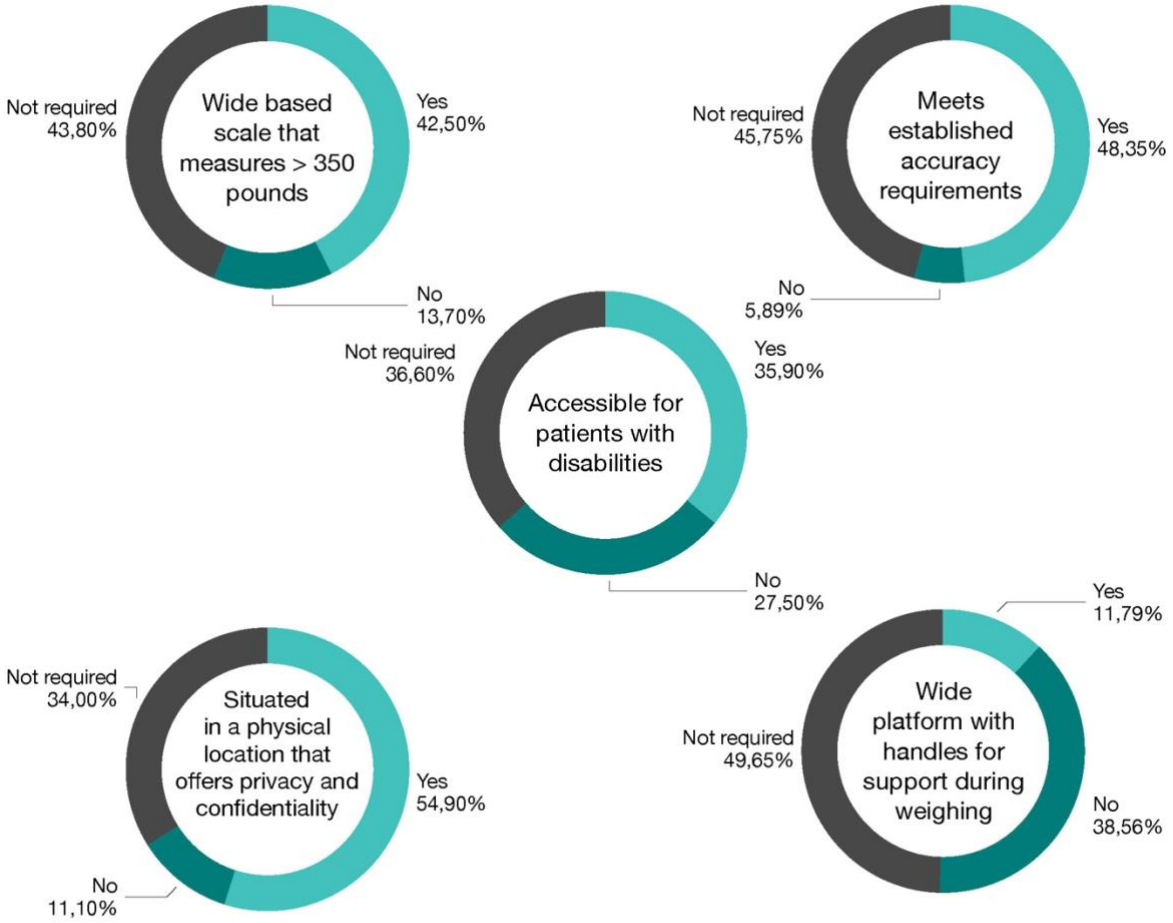
[8] Adapted from: Kushner RF. Roadmaps for Clinical Practice: Case Studies in Disease Prevention and Health Promotion–Assessment and Management of Adult Obesity: A Primer for Physicians. Booklet 9: Setting up the Office Environment. Chicago, Ill: American Medical Association; 2003

Further on, the participants were also asked to complete the following checklist with the availability of the following items in the waiting room, and the results can be found in the table below.



Availability of certain items in the waiting room

Likewise, the participants were also asked to complete the following checklist with the description of the scale that they use in their practice:



Scale attributes

Health Professionals preference of interventions mitigating weight bias[9]

Participants were asked to rank the following interventions from most preferable to least preferable and here are the results:

1st place: Training which promotes health and wellbeing without focusing on weight (non-diet approach).

2nd place: Experiential learning including witnessing the treatments recommended for patients with obesity, interacting with patients with obesity, and working with senior healthcare professionals who treat patients with obesity;

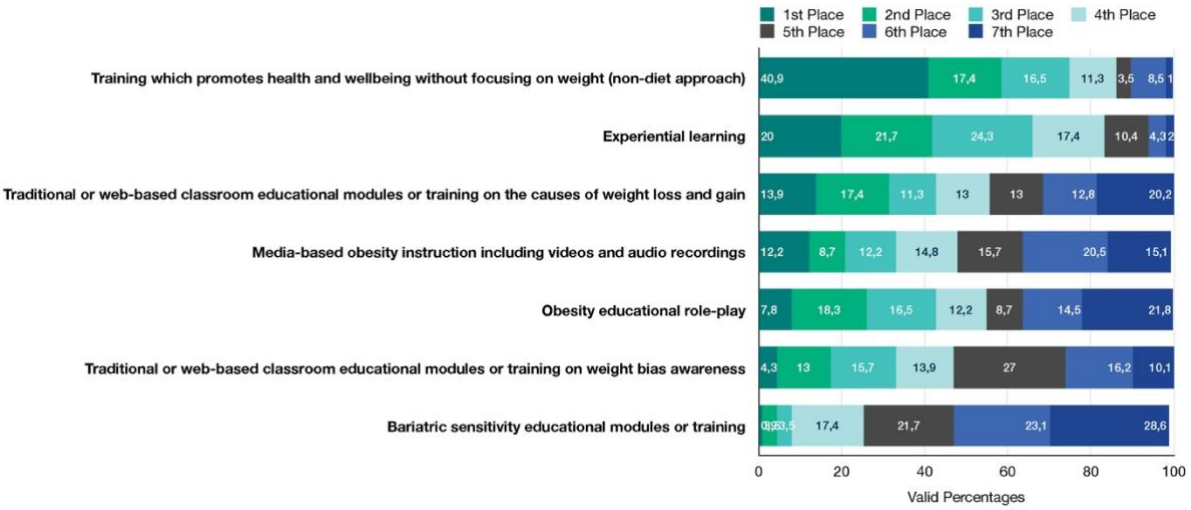
3rd place: Obesity educational role-play;

4th place: Bariatric sensitivity educational modules or training;

5th place: Traditional or web-based classroom educational modules or training on weight bias awareness;

6th place: Media-based obesity instruction including videos and audio recordings;

7th place: Traditional or web-based classroom educational modules or training on the causes of weight loss and gain including genetic, environmental, biological, psychological, and social contributors;



[9] Adapted from: *Alberga, A. S. et al. 2016. "Weight Bias Reduction in Health Professionals: A Systematic Review." Clinical Obesity 6(3): 175–88.*