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WORK IN PROGRESS REPORT

Obesity Discrimination in the Workplace: "You're Hired!"

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The purpose of this study is to first identify whether obese people are discriminated against when hiring employees. Employees of workforces that vary due to the physical demand of their job, will rate hypothetical applicants on their suitability for employment using Likert-type responses to a range of questions. Applicants' curriculum vitae will be manipulated by weight status and gender. Implicit and explicit attitudes towards obese people will also be examined using existing measures with strong psychometric properties as reported in extant research. Second, using focus group discussions with employees of either sedentary or physically active workforces, this study will explore why and in what ways obese people are discriminated against in the workplace.

Keywords: obesity; discrimination; workplace; implicit; explicit

Editor's Note

This work in progress report (WiP) was developed by the 2014–2015 cohort of the Junior Researcher Programme (JRP), a service supported by the European Federation of Psychology Students' Associations (EFPSA). During the course of the JRP calendar, the six research groups that are initiated via the European Summer School submit the WiPs of their research to the Journal of European Psychology Students (JEPS). The WiPs are short methodology papers that outline steps undertaken by research groups in developing and carrying out a research project in the context of low-resource, independent, student-driven, cross-cultural research. The

WiPs are submitted prior to project completion to enable the authors to improve their research according to the comments resulting from the peer-review process. WiPs also support the dissemination of methods used by student-driven, independent research projects, with the hope of informing others carrying out such work. The 2014–2015 cohort was inducted into the JRP at the European Summer School 2014, held in Vorarlberg, Austria.

Introduction

Worldwide prevalence of obesity has more than doubled since 1980 with approximately half a billion people currently classed as obese (Body Mass Index $\geq 30\text{kg.m}^2$). Extant literature demonstrates that anti-fat attitudes are common and that obese people are stigmatised. For example, Sabin, Marini, and Nosek (2012) reported strong implicit anti-fat attitudes and a preference for thin people in a sample of medical doctors.

A number of vehicles in society such as the media, where fat jokes and derogatory portrayals are common (Puhl & Brownell, 2001), contribute to the development of anti-fat attitudes and obesity stigmatisation. These consistent and frequent messages consequently lead to the development of strong, robust attitudes, that are resistant to change (Flint, Hudson, & Lavalley, 2013). Obesity discrimination has been reported in various settings such as the workplace (e.g., Flint et al., 2013). Due to the increasing prevalence of adult obesity, the impact of obesity discrimination has become a topic of focus for employment law in Europe (Flint & Snooke, 2014). More recently, the EU's highest court has ruled that in cases where obesity prevents "full and effective participation" at work, it can be considered a disability. This means that obesity is not viewed as a disability, unless a person suffers from long-term impairment

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due to their obesity and can thus be protected by the new disability legislation. Additionally, on average, European adults spend 42 hours per week in the workplace (Lee, McCann, & Messenger, 2007) and with reports that obese people experience discrimination in this setting, research examination in this environment appears warranted.

Research to date examining obesity discrimination in the workplace has suggested that obese people are assessed with less leadership potential, are less likely to be employed, and are expected to be less successful compared to normal weight peers (Flint & Snooke, 2014). It has also been reported that obese people receive lower starting salaries, are ranked as less qualified, and work longer hours than normal weight employees (Schulte et al., 2007). Furthermore, gender differences are reported, as women were almost three times more likely to report discrimination than men (Roehling, Roehling, & Pichler, 2007). Thus, the physical demands of a job (Carr & Friedman, 2005) and the employee's gender (Bartels & Nordstrom, 2013) have previously been suggested to impact obesity discrimination.

In relation to the hiring process, Bartlets and Nordstrom (2013) suggested that obese women are more likely to be discriminated against than obese men when applying for a job, especially if the job requires high visibility and physical demands. Moreover, in a sample of managers, Agerström and Rooth (2011) reported that managers had negative automatic stereotypes about obese people and were less likely to invite an obese applicant for an interview. Thus, given the findings of previous studies and the new disability legislation, research which compares the physical demands of the job and manipulates gender and weight status of applicants in the hiring process appears warranted. The anticipated findings would not only contribute further insight into this contemporary societal issue, but would also provide valuable data which could have implications for future policies. Based on existing empirical evidence suggesting obese people are discriminated against in the workplace, this study aims to examine two research questions:

Phase I: Are obese people discriminated against when hiring employees?

Phase II: Why and in what ways are obese people discriminated against in the workplace?

Three hypotheses are offered to examine the Phase I research question: (1) obese people are less likely to be assessed positively on personnel suitability than normal weight people in line with Roehling et al. (2007); (2) obese people in active working environments are more likely to be discriminated against than people in non-active working environments in line with Carr and Friedman (2005); and (3) obese women are more likely to be discriminated against than obese men in line with Bartlets and Nordstrom (2013).

Method

This study is comprised of two phases. Phase I is a quantitative examination of whether obese people are discriminated against in the hiring of employees. Phase II is a further exploration through qualitative measures of

why and in what ways obese people may be discriminated against in the workplace.

Participants

Overall, approximately 232 participants (males and females) aged 18–65 years, will be sampled. They will be currently employed, fluent in English and located in one of four European countries (Czech Republic, Netherlands, Slovenia, and the UK). 160 participants will be recruited to Phase I (40 in heavy manual work, 40 in manual work, 40 in standing and 40 in sedentary occupations) who are involved in the hiring process at their workplace and 72 participants (36 employed in high physical activity and 36 employed in sedentary occupations) will be sampled in Phase II.

Measures

A range of implicit and explicit measures will be used to assess the constructs of attitudes and beliefs towards obese persons and to identify the physical activity level of occupations (see **Table 1**).

Design

In Phase I the study takes the form of a 4*3*2 mixed methods design with four job activity levels (factor 1; sedentary, standing, manual, and heavy manual occupations), three types of CVs (factor 2; no picture, picture of a normal weight candidate, picture of an overweight candidate) and gender of the candidate (factor 3), as presented in **Table 3**.

In Phase II, twelve semi-structured focus groups will be conducted where half of the groups are from high physical activity occupations and the other half from sedentary occupations (factor 1).

Procedure

Phase I. In Phase I, 160 participants will be recruited, equally distributed across the four job activity levels. Manipulations include the physical activity requirements of the job that candidates have hypothetically applied for (matched to subjects that work in a similar environment) and the pictures of candidates presented on the CVs, varying in weight status and gender. Four different pictures of females and males will be used to reduce the chance of potential confounds due to the picture itself. Thus, in total, for each job (heavy manual work, manual work, standing and sedentary) there will be 18 CVs of 6 candidates (obese, normal weight, no image). Each participant will rate the suitability of the six candidates, randomly allocated and counterbalanced for gender and weight status: two normal weight (1 male, 1 female), two overweight (1 male, 1 female) and two no picture, on a seven-point Likert scale. The suitability questionnaire was established based on previous literature (O'Brien et al., 2008). The questionnaire items are commonly used to evaluate whether the candidate fits the job demands and to assess anti-fat discriminatory behaviour (O'Brien et al., 2008). Empirical evidence (Pingitore, Dugoni, Tindale, & Spring, 1994) suggests that stereotypes commonly associated with overweight individuals influence personnel decisions (Rudolph, Wells, Weller, & Baltes, 2009).

Measure	Construct	Scale/scoring	Example statement	Internal consistency
Beliefs About Obese Persons scale (BAOP; Allison, Basile, & Yuker, 1991)	The extent to which an individual believes that obesity is under an individual's control.	Eight items, measured on a six-point Likert scale, referring to the extent of agreement or disagreement (-3 to +3) to each statement. Scores range from 0–48 with higher scores indicating stronger beliefs about the controllability of obesity. After summing the items value 24 is added. Thus scores range between 0–48.	“Obesity is really caused by lack of willpower.”	Internal consistency is satisfactory with Cronbach's alpha scores ranging between .65–.83 (e.g., Allison et al., 1991).
Attitudes Towards Obese Persons scale (ATOP; Allison et al., 1991)	Positive and negative attitudes towards obese people.	Twenty items measured on a six-point Likert scale used to show the extent of agreement or disagreement (+3 to -3). Scores range from 0–120 with higher scores indicative of more positive attitudes towards obese persons. After summing the responses to the items, 60 is added to the total. Thus scores range between 0 and 120.	“Obese workers cannot be as successful as other workers.”	Internal consistency is satisfactory with Cronbach's alpha scores ranging from .80 to .84 (Allison et al., 1991).
The Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998)	A computer-based measure of implicit attitudes which will be modified in this study to assess attitudes towards fatness and thinness.	Scores range between -1 and 1 with positive scores indicative of implicit anti-fat or pro-thin preference. The seven block IAT will be employed as described by Greenwald, Nosek, and Banaji (2003, see Table 2). The quicker participants assign stimuli to the grouping categories in blocks 4 and 7, the stronger implicit attitude towards the pairings.	Stimuli words will be assigned to pre-determined categories by pressing either the E or I keys on the keyboard. Stimuli words include “fat”, “thin”, “happy” and “failure”.	Internal consistency is satisfactory with Cronbach's alpha ranging from .7 to .9 (e.g., Greenwald et al., 1998).
The Short Form European Prospective Investigation into Cancer and Nutrition Physical Activity Questionnaire (EPIC; Wareham et al., 2003)	Used to assess the level of physical activity of sampled occupations.	Four-point, mutually exclusive, ordered categories concerning physical activity at work over the past year. Occupational activity falls into the following categories: sedentary, standing, manual work, and heavy manual work.	“Standing occupation: You spend most of your time standing and walking. However, your work does not require intense physical effort (e.g., shop assistant, hairdresser, guard, etc.)”	The repeatability of the derived index is acceptable (weighted kappa statistic = 0.6; Wareham et al., 2003). Therefore, the short EPIC questionnaire was considered to be an adequate activity-ranking instrument (Westerterp, 2009).

Table 1: Description of the implicit and explicit measures.

Block	No. of Trials	Task	Grouping categories	
			Left Key	Right Key
Block 1	20	Discrimination	Fat	Thin
Block 2	20	Attribute	Pleasant	Unpleasant
Block 3	20	Discrimination and attribute combined (practice)	Fat, Pleasant	Thin, Unpleasant
Block 4	40	Discrimination and Attribute combined (test)	Fat, Pleasant	Thin, Unpleasant
Block 5	20	Reversed Discrimination	Unpleasant	Pleasant
Block 6	20	Reversed Discrimination and attribute combined (practice)	Unpleasant, Fat	Pleasant, Thin
Block 7	40	Reversed Discrimination and attribute combined (test)	Unpleasant, Fat	Pleasant, Thin

* The order of the category pairings (blocks 3, 4, 6, and 7) will be counterbalanced.

Table 2: Seven Block IAT (Greenwald et al., 1998).

4x3x2 Mixed Methods Design	FACTOR 1 Job Activity Level	FACTOR 2 CV Pictures	FACTOR 3 Gender
LEVEL 1	Heavy manual work	Obese person	Male
LEVEL 2	Manual work	Normal weight person	Female
LEVEL 3	Standing	No picture	
LEVEL 4	Sedentary		

Table 3: 4x3x2 Mixed Methods Design.

Rudolph and colleagues found a strong effect size of $d = 0.70$ suggesting strong weight bias on hiring outcomes (for further interpretation, see Rudolph et al., 2009).

The personnel-suitability questionnaire is composed of seven items measuring participants' interpretation of the applicant's team-work ability, social competence, job efficiency, intelligence, motivation and leadership skills on a 7-point Likert scale. Questions such as "How sociable do you think this person is?" or "How much leadership potential does this person have?" evaluate whether the candidate fits the job demands and assess anti-fat discriminatory behaviour. The last question will explicitly ask whether the candidate is believed to be suitable for the job.

Subsequently, a demographics form, the ATOP and the BAOP (see **Table 1**) will be administered via the web interference to measure explicit attitudes and beliefs towards obese persons. After the participants have completed the questionnaires the web interference will direct them to the IAT (see **Table 1**), in order to measure implicit fat or thin preference. The order of explicit questionnaires and IAT is the same across all participant groups.

Phase II. This phase is designed to explore why and in what ways obese individuals are discriminated against in the workplace. From 72 participants, a total of 12 semi-structured focus groups will be conducted. Six groups (36 participants) will be comprised of employees that have a job that requires high levels of physical activity and six groups (the other 36 participants) will be comprised of employees that have a sedentary job. Each focus group will contain between four and six participants, with a duration of approximately 45–90 minutes. Discussions will focus on participants' perceptions of obese employees, common stereotypes and the different types of discrimination obese employees may experience. In order for the emerging themes to reveal the prevalence of obesity discrimination, groups will be carefully facilitated to remain on topic, ensuring the generation of relevant data. Groupthink will be minimised by encouraging participants offer personal opinions in both the information sheet and focus groups that may lead to critical discussion.

Proposed Analysis

In Phase I, a MANOVA, will be conducted to examine if obese individuals are discriminated against during the application procedure. Personnel suitability is defined as the cumulative of the seven items in the personnel suitability questionnaire. The gender of the hypothetical applicant, physical activity level of the workplace and the weight

of the applicant will be analysed on personnel suitability. Where significant differences are identified, follow-up one way ANOVA's will be conducted, which will allow for an in-depth investigation. Lower scores on personnel suitability will indicate higher discrimination which is expected in obese job candidates, increasing in obese female job candidates and in higher active working environments. Multiple regression analysis will be conducted to identify whether scores in implicit attitude measures, and explicit measures (ATOP and BAOP), predict the personnel suitability judgments of the participants (see **Table 1**). We are particularly interested in the difference in judgement between the obese and non-obese cases. Naturally, we also expect that the scores in implicit and explicit measures will contribute to overall differences and so we will establish a multiple predictor model.

In Phase II, thematic content analysis will be employed to examine themes that emerge from the focus group discussions.

Ethics

Although it is expected that participants would be exposed to minimal risk, we are taking into account various ethical considerations. Prior to contacting employees (participants), permission will be requested from the main contact person in specific workplaces as well as to check the suitability of employees for participation in this study.

Ethical clearance was requested from the universities of all countries where research students reside and where they will also collect the data (Czech Republic, Netherlands, Slovenia, and the UK) to meet the ethical standards of each country. Ethical clearance was first received at the institution of the Principal Investigator and is currently requested at each of the Junior Researchers' institutions. All the Junior Researchers require ethical clearance since all the members of the group are involved in data collection.

The implicit and explicit scales have been used extensively and in population groups that would suggest that participants recruited to this study are unlikely to experience any physical and psychological discomfort. Additionally, participants will receive an information sheet, where they will be informed about the procedure and their right to remain anonymous, that their responses will be confidential and that they may withdraw from the study at any time up until the point of publication. In order to avoid social desirability bias, the precise aim will not be made explicit to participants in Phase I of the study (research question 1), but will be revealed in the debrief

sheet immediately after participation is complete. If there is an instance of participant discomfort, data collection will be ceased.

In seeking ethical clearance, there were differences in the application process between institutions. Moreover, one of the institutions affiliated to our study does not have a standing ethics committee. This should be noted for future studies that are carried out in similar contexts.

Practical

The specific challenges related to the completion of an independent, unfunded study by a team of international researchers has required an innovative and open-minded approach. Different roles were assigned to group members: the Principal Investigator coordinated and supervised the research team; the Communications Officer managed internal communication, i.e. between group members and the Principal Investigator, as well as external communication i.e. with external contacts (e.g., EFPSA, JEPS); two Policy Officers researched relevant policy on obesity discrimination and identified relevant outlets for dissemination; and three Analysts reviewed evidence and proposed analysis for the current study. Despite specialised roles being assigned to each group member, everyone is expected to contribute at all stages of the project.

For communication purposes, multiple technological platforms were used including social media and video conferencing. This allowed for regular and flexible communication at key stages of the project, for example, the submission of the ethics form and the logistics of completing the WiP article. Furthermore, access to the materials required in terms of the study design has been problematic. In particular, the researchers faced difficulties in obtaining access to the computerised version of the IAT in all the institutions where data shall be collected due to a lack of funding. The IAT will be administered to participants in their workplaces on the researchers' personal computers. Translation of the scales required by our methodology was considered during the study development phase of the project. However, the researchers agreed on using the English versions of the scales in order to maintain maximal psychometric properties of the instruments used. Additionally, recording devices for Phase II of the study are needed. Smart phones were chosen for convenience.

Current Status of the Project

At the time of writing, the group has obtained ethical approval from the University of Sheffield Hallam, and applications are to be submitted at Charles University (Czech Republic), Radboud University (Netherlands), University of Bath (UK), University of Manchester (UK), University of Maribor (Slovenia), and University of Utrecht (Netherlands).

Prospective Discussion

Building on previous research (e.g., Bartlets & Nordstrom, 2013; Flint & Snooke, 2014) and in many instances, non-evidenced reports, this study aims to identify whether obese people are discriminated in the job hiring process and why this may occur. Potential limitations include the use of self-report scales as participants might conceal or

reduce the extent of their true perceptions. However, the IAT will be employed which is designed to overcome the potential for social desirability and demand characteristics influencing a participant's response. It is anticipated that this research will provide novel findings relating to obesity discrimination in the workplace and will provide a stimulus for future research.

Competing Interests

The authors declare that they have no competing interests in publishing this article.

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