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Swami, V., Voracek, M., Furnham, A., Robinson, C., & Tran, U. S. (2023). Support for weight-related anti-discrimination laws and policies: Modelling the role of attitudes toward poverty alongside weight stigma, causal attributions about weight, and prejudice. *Body Image*, 45, 391–400. <https://doi.org/10.1016/j.bodyim.2023.04.005>

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Support for Weight-Related Anti-Discrimination Laws and Policies:
Modelling the Role of Attitudes Toward Poverty Alongside Weight Stigma, Causal
Attributions about Weight, and Prejudice

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Abstract

In the present study, we sought to position support for weight-related anti-discrimination laws and policies within a broader political and socioeconomic context. Specifically, we hypothesised that individualistic (rather than structural) anti-poverty attitudes would provide the basis for negative weight-related dispositions. To test this hypothesis, we asked 392 respondents from the United Kingdom to complete measures of support for weight-related anti-discrimination laws and policies, attributions about the causes of being larger-bodied, and weight-related stigma and prejudice. Path analysis with robust maximum likelihood estimation indicated that greater individualistic anti-poverty attitudes were significantly and directly associated with lower support for weight-related anti-discrimination laws and policies. This direct association was also significantly mediated by weight-related stigma and via a serial mediation involving both weight-related stigma and prejudice. Although greater individualistic anti-poverty attitudes were significantly associated with greater personal attributions for being larger-bodied, the latter did not emerge as a significant mediation pathway. The present findings highlight the importance of considering broader political and socioeconomic contextual factors that may provide a basis for the development, maintenance, and manifestation of negative weight-related dispositions.

Keywords: Weight-related laws; Weight-related policies; Stigma; Prejudice; Poverty; Individualistic attitudes; Path analysis; Mediation

1. Introduction

Weight-related stigma (i.e., negative attitudes and blame directed toward higher-weight individuals) and discrimination (i.e., inequitable treatment and disadvantaging of higher-weight individuals) are commonplace among larger-bodied individuals globally (Brewis et al., 2018; Pearl, 2018; Puhl & Heuer, 2009; von Liebenstein, 2023). Such forms of stigma and discrimination are associated with negative consequences for larger-bodied individuals (Brown et al., 2022; Pearl & Hopkins, 2022), including poorer psychological well-being (e.g., Robinson et al., 2017; Sutin et al., 2019; Warnick et al., 2022), fewer educational opportunities (e.g., Kenney et al., 2015; Swami & Monk, 2013), and poorer physical health (Tomiya et al., 2018). These associations – which have become stronger over the course of the COVID-19 pandemic (Sutin et al., 2021) – may in turn contribute to premature mortality (Sutin et al., 2015) and to increased health and social inequalities at a population level (Puhl & Heuer, 2010). Despite these serious deleterious outcomes, weight-based discrimination remains legal in most parts of the world (Pomeranz & Puhl, 2013).

Traditionally, efforts to mitigate population obesity have focussed on psycho-educational interventions for larger-bodied individuals (Harwood et al., 2022; Hartlev, 2014). However, aside from their low efficaciousness, such methods have also been criticised for ascribing responsibility and blame to larger-bodied individuals (i.e., engaging in victim-blaming) and thus reinforcing weight stigma (Brewis et al., 2018; Ramos Salas et al., 2018). An alternative method is to shift practitioner and policy-maker attention onto “structural solutions” – the enactment of policies and laws that prohibit unfair treatment based on body weight (Pearl, 2018; Solanke, 2021) – that are likely to mitigate harm from weight stigma and discrimination. Such structural solutions include laws that protect employees from workplace discrimination based on weight, the inclusion of body weight as a protected category in civil rights laws, and providing larger-bodied individuals with legal protection from discrimination

(e.g., Suh et al., 2014a, 2014b; Puhl et al., 2014, 2016; von Liebenstein, 2023). Such solutions could benefit individual health by reducing exposure to stressors that contribute to poorer physical and psychological health (Pearl et al., 2017), but could also improve societal attitudes and thereby reduce weight stigma and discrimination at population levels (Huang et al., 2020).

Public support is important for the enactment process of anti-discrimination policies and laws (Bajaj et al., 2022; Puhl et al., 2015; Sikorski et al., 2011); that is, public support often serves as the “driving force” that convinces policy-makers to advocate for protective legislation (Puhl, 2022, p. 133). Although a majority of respondents in studies in some countries (e.g., Canada, Germany, the United States, the United Kingdom) support the enactment of policies and laws to prohibit weight-based discrimination, especially in occupational settings (Puhl, 2022; Puhl et al., 2015, 2021; von Liebenstein, 2021), much more can be done to better understand the factors that lead to such support (or the lack thereof). Thus, some research has focused on socio-demographic predictors of support for weight-related anti-discrimination laws and policies, with some studies indicating greater support among women (compared with men), larger-bodied individuals, and individuals with lower education (e.g., Hilbert et al., 2017; Puhl et al., 2015). However, associations between socio-demographic factors and support for such laws and policies are often weak and sometimes equivocal (e.g., some studies suggest no significant effects of gender; Puhl et al., 2016; Sikorski et al., 2011).

Instead of focusing on socio-demographic variables, there may be greater value in shifting the focus of research onto attitudinal dispositions and beliefs instead. For instance, in a recent systematic review, Hill and colleagues (2021) reported that the majority of studies assessing predictors of anti-stigma and discrimination policies were focused on causal attributions (i.e., assigning responsibility for being larger-bodied to individual behaviour).

For example, support for weight-based policies was significantly lower when individuals more strongly attributed obesity to personal control (e.g., lack of willpower; Beeken & Wardle, 2013) and responsibility was ascribed to the individual. Conversely, when obesity is attributed to factors beyond personal control (e.g., the environmental availability of unhealthy foods or genetics), there is generally greater support for the enactment of weight-related policies (Joslyn & Haider-Markel, 2019; Mazzocchi et al., 2015). Thus, to the extent that obesity is seen as being under personal control (Puhl & Brownell, 2013), it typically results in lower support for weight-related anti-discrimination policies and laws.

However, the link between causal attributions and support for weight-related anti-discrimination policies and laws is unlikely to be direct. For instance, drawing on attribution theory (Weiner, 2006; Weiner et al., 1988), causal beliefs about the controllability of obesity are thought to lead to stigmatising attitudes (e.g., stereotyping larger-bodied individuals as lazier and unintelligent; Elran-Barak & Bar-Anan, 2018; Evans et al., 2023; Puhl & Brownell, 2001; Swami et al., 2008) that, in turn, influence bias and discrimination (for a review, see Puhl & Brownell, 2013). To the extent that stigmatising attitudes are based on causal attributions of obesity to the individual, respondents may be more likely to adopt a victim-blaming stance and thus demonstrate lower support for weight-related anti-discrimination policies and laws. Systematic reviews of the literature (e.g., Sikorski et al., 2011) and cross-sectional studies (e.g., Chambers & Traill, 2011) have generally supported this model linking attributions, stigmatising attitudes, and support for public health initiatives focused on weight.

Although this research appears fairly conclusive, there are several ways in which this body of work could be extended. First, the role prejudicial attitudes in relation to support for weight-related anti-discrimination policies and laws needs to be investigated more fully. According to both Crandall and Biernat's (1990) model of anti-fat attitudes and the integrated

threat theory of prejudice (Stephan & Renfro, 2002), prejudice (i.e., antipathy and negative affect directed towards an outgroup) is located as an outcome of stereotypical and stigmatising views of larger-bodied individuals. Narratives of an “obesity epidemic”, for instance, promote sensationalised presentations of obesity as a threat to societal and economic well-being (Rathbone et al., 2022), a form of “symbolic violence” (Bourdieu, 1991; Gailey, 2022) that allows for the emergence of prejudicial attitudes toward larger-bodied individuals (Puhl & Brownell, 2003; Puhl, 2022). In turn, anti-fat prejudice has been shown to be significantly associated with lower support for weight-based anti-discrimination policies and laws, even after controlling for a range of socio-demographic characteristics (Berg et al., 2016).

1.1. The Role of Attitudes Toward Poverty

A second issue that is deserving of attention in relation to support for weight-related anti-discrimination policies and laws is the role of broader political, cultural, and economic structures and beliefs (cf. Link & Phelan, 2014). For instance, contemporary neoliberal health discourse constructs the “fat” body as an unhealthy, failed body (Guthman & DuPuis, 2006; Halse, 2009), while obscuring the social construction of body sizes (Ernsberger, 2009). To the extent that such discourse presents eating and exercise behaviours as largely dependent on individual choice – the biomedical methods of choice for weight reduction and maintenance (Wright & Harwood, 2009; Rathbone et al., 2022) – body size thus becomes a matter of personal responsibility, with larger-bodied individuals marked and blamed for failing to adhere to normative standards of appearance (i.e., slenderness; Solovay & Rothblum, 2009). Thus, larger-bodied individuals come to be constructed not only as a danger to themselves (e.g., in terms of individual health outcomes), but also to the economic productivity of a society or nation (Evans et al., 2008; Farrell, 2011; LeBesco, 2010).

Within this discourse, however, the intersection between body size and social class becomes especially salient (Evan et al., 2008), with larger-bodied working-class people subordinated and regulated as deviant (LeBesco, 2007; van Amsterdam, 2013). For instance, in the United Kingdom, scholars have discussed how a range of television programming uses the neoliberal health discourse and the elicitation of negative affect (e.g., disdain, anger, disgust, fear) to position larger-bodied working-class individuals as a subordinated social category (e.g., Harrison et al., 2021; Mulderrig, 2017; Raisborough et al., 2019, 2022; Rich, 2011). More generally, as Hatherley (2015, p. 67) has written, “fatness is used as visual shorthand to signify the working-classes’ supposed bad spending, bad eating habits, and in short ‘bad taste’”. Thus, in contemporary United Kingdom culture, the larger-bodied working-class body has come to symbolise a condition of being socially and physically “unfit”, a visible state of being irresponsible and lacking in self-control (Hatherley, 2015; Jones, 2011; Rich, 2011; Rich et al., 2015). In making these constructions, obesity performs a specific socio-political function: casting doubt on the legitimacy of people’s impairments and on entitlement to support, and thus shifting the blame for economic hardship onto marginalised groups (Raisbough, 2016; Wacquant, 2008).

Extending these perspectives, and drawing on Link and Phelan’s (2014) theorising of the motives of stigma (i.e., stigma as means of keeping people in, away, or down), it might be suggested that weight-related stigma and discrimination are a means for those of high socioeconomic status to maintain their wealth, status, and power (Bernard et al., 2019) and to place a symbolic distance between themselves and those of low(er) socioeconomic status (Boero, 2012; Saguy, 2013). That is, because socioeconomic status is a largely invisible characteristic and to the extent that being larger-bodied is constructed as a metaphor for lower socioeconomic status, individuals or groups of high socioeconomic status may engage in weight-related stigma and discrimination to keep larger-bodied individuals down.

However, studies testing this hypothesis have returned mixed results, with studies variously indicating that higher educational attainment and income (proxies of socioeconomic status) are positively, negatively, or not significantly associated with weight-related stigma, discrimination, and support for anti-discrimination laws and policies, respectively (for a review, see Bernard et al., 2019).

One limitation of this body of work, however, lies in the reliance on proxies of socioeconomic status, such as educational attainment and income. Although education and income may provide useful indicators of a person's socioeconomic status, these indices may not fully reflect relevant attitudinal dimensions – learned and reinforced through sociocultural routes (Ajzen & Cote, 2008) – that shape weight-related beliefs (Bourdieu, 1987). More to the point, there may be greater value in focusing on attitudes toward poverty (Feagin, 1972), which broadly focus on individualistic (i.e., a person's deficits or inability to pull themselves out of poverty) or structural explanations (i.e., socioeconomic structures in society that limit opportunities of people living in poverty; Weiner et al., 2011; Yun & Weaver, 2010). In this sense, it is likely that individualistic anti-poverty attitudes – rather than education or income – underpin the extent to which weight-related stigma and discrimination are mobilised to keep larger-bodied individuals down. To our knowledge, however, this proposition has not been previously tested *vis-à-vis* weight-related stigma, discrimination, and support for anti-discrimination laws and policies.

1.2. The Present Study

Here, we suggest that – in the United Kingdom at least – weight-related attitudes may be predicated on neoliberal health discourse generally and attitudes toward poverty more specifically. That is, we begin by locating attitudes toward individuals living in poverty as the cognitive and affective basis that allows for the development and maintenance of negative weight-related attitudes and behavioural dispositions. From this point-of-view, and to the

extent that being larger-bodied is conflated with living in poverty (Hatherley, 2015), positioning individuals as being responsible for “being poor” – for example, as a result of bad choices and personal failings, and a lack of motivation, work ethic and moral stature (Reutter et al., 2005) – affords a stigmatising worldview that leads to the stigmatisation and discrimination of larger-bodied individuals. Put differently, weight-related attitudes are hypothesised as being predicated upon attitudes toward poverty. As such, our work shifts the ontological focus away from proxies of socioeconomic status (e.g., educational attainment) and onto socioculturally-learned attitudinal dispositions.

More specifically, we firstly hypothesised that attitudes toward poverty (wherein individuals living in poverty are cast as responsible for their condition and discriminated against) would be significantly associated with lower support for weight-related anti-discrimination policies and laws (H₁). Additionally, and based on the review above, we also hypothesised a serial indirect mediation association (i.e., a mediation via two or more mediators that are closely associated due to theoretical underpinnings or empirical findings) linking attitudes toward poverty and support for weight-related anti-discrimination policies and laws via personal attributions for being larger-bodied, stigmatisation of larger-bodied individuals, and prejudice towards larger-bodied individuals (H₂). In this model, we hypothesised that personal attributions for being larger-bodied would precede both stigmatisation and prejudice, which would be consistent with existing research (e.g., Crandall & Biernat, 1990; Puhl & Brownell, 2003). A graphical representation of this hypothesised model is presented in Figure 1. Finally, given that gender identity is equivocally associated with support weight-related anti-discrimination laws and policies (Hilbert et al., 2017; Puhl et al., 2016), we also tested the invariance of our hypothesised model across gender.

2. Method

2.1. Participants

The initial sample consisted of 398 individuals, but because of their small subsample sizes, we excluded participants who identified their gender “in another way” ($n = 3$) and those who preferred not to identify their gender ($n = 3$). The final sample, therefore, consisted of 196 individuals who identified as women and 196 who identified as men. Participants ranged in age from 18 to 77 years ($M = 38.8$, $SD = 12.8$), and the majority indicated that they were of White/British White ancestry (87.2%; Asian/Asian British = 5.9%; Black/African/Caribbean/Black British = 2.8%; mixed/multiple ethnic groups = 2.8%; other = 1.3%). In terms of education, 14.0% had completed minimum secondary schooling, 26.3% had completed further education, 37.0% had an undergraduate degree, 20.9% had a postgraduate degree, and 1.8% had another qualification. Of the total sample, 24.2% were single and unpartnered, 34.4% were partnered but not married, 35.7% were married, 3.8% were divorced, and 1.8% had another marital status.

2.2. Measures

2.2.1. Attitudes toward poverty. Attitudes toward poverty was assessed using the Short-Form of the Attitudes Toward Poverty Scale (ATPS-SF; Yun & Weaver, 2010). This is a 21-item instrument that assesses the extent of beliefs that people living in poverty are personally deficient (7 items; sample item: “Poor people are dishonest”), discriminatory attitudes toward people living in poverty (8 items; sample item: “Poor people think they deserve to be supported”), and structural perspectives of poverty (6 items; sample item: “Poor people are discriminated against”). Minor wording adjustments were made to reflect use of the instrument in the United Kingdom (e.g., using the term “benefits” instead of “welfare”). All items were rated on a 5-point scale ranging from 1 (*fully disagree*) to 5 (*fully agree*). Although the instrument nominally consists of three dimensions, subscale scores are also highly inter-correlated (in the present study, inter-factor correlations ranged from .58 to .62) and the scale developers allow for the computation of an overall score following reverse-

coding of the items relating to structural perspectives of poverty. We, therefore, computed an overall score by taking the mean of all items in the present study, with higher scores reflecting more negative attitudes toward poverty. Scores on the ATPS-SF have been shown to have adequate construct validity and internal consistency (Millecheck, 2020; Yun & Weaver, 2010). Internal consistency in the present study, as measured using McDonald's ω , was .91 (95% $CI = .90, .92$).

2.2.2. Causal attributions. To measure the extent to which participants believed that the causes of obesity are personal (i.e., making personal attributions of obesity), we used the 8-item Beliefs About Obese Persons scale (BAOP; Allison et al., 1991). For each item (sample item: "Obesity is usually caused by overeating"), participants rated their agreement using a 6-point scale ranging from -3 (*strongly disagree*) to +3 (*strongly agree*). To compute an overall BAOP score, positive and negative responses were summed and 24 was added to that sum (Allison, 2009). Higher scores on this instrument reflect a belief that obesity is under one's personal control. Scores on the BAOP have adequate construct validity and internal consistency. In the present study, McDonald's ω of BAOP scores was .74 (95% $CI = .71, .77$).

2.2.3. Stigma. To measure stigmatising attitudes toward larger-bodied individuals, we used the Negative Judgement subscale of the Universal Measure of Bias-FAT (UMB-NJ; Latner et al., 2008). This subscale consists of 5-items assessing bias and stigma toward larger-bodied individuals (sample item: "Fat people are sloppy"). All items were rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). An overall score was computed as the mean of all 5 items, such that higher scores reflect more negative judgements of larger-bodied individuals. Latner and colleagues (2008) reported that scores on the UMB have adequate construct validity and internal consistency. In the present study, McDonald's ω of UMB-NJ scores was .91 (95% $CI = .89, .92$).

2.2.5. Prejudice. Prejudicial attitudes toward larger-bodied individuals were assessed using the Dislike subscale of the Anti-Fat Attitudes scale (AFA-D; Crandall, 1994). This is a 7-item measure that assesses prejudiced and negative attitudes toward larger-bodied individuals (sample item: “I really don’t like fat people much”). All items were rated on a 10-point scale ranging from 1 (*very strongly disagree*) to 10 (*very strongly agree*) and an overall score was computed as the mean of all 7 items. Higher scores on this scale reflect more prejudiced attitudes toward larger-bodied individuals. Crandall (1994) reported that scores on the AFA have adequate construct validity and internal consistency. In the present study, McDonald’s ω for scores on the AFA-D was .89 (95% *CI* = .87, .91).

2.2.5. Support for weight-related anti-discrimination policies and laws.

Participants were asked to complete a measure of support for weight-related anti-discrimination policies and laws (Ambwani et al., 2021; Hilbert et al., 2017). Participants rated their agreement with a series of 15 suggested policies and laws (sample item: “It should be illegal to refuse to hire a qualified person because of body weight”) on a 5-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). An overall score was computed as the mean of all 15 items, such that higher scores reflect greater support for weight-related anti-discrimination policies and laws. Previous work has shown that scores on this instrument have adequate construct validity and internal consistency (Ambwani et al., 2021). In the present study, McDonald’s ω for scores on this measure was .88 (95% *CI* = .87, .90).

2.2.6. Demographics. Participants were asked to provide their demographic details consisting of their gender identity, age, highest educational qualification, race/ethnicity, and marital status. Although we also collected information about height and weight, we elected not to use these data to avoid perpetuating weight stigma (for a discussion, see Calogero et al., 2016).

2.3. Procedures

Ethics approval was obtained from the senior author's institution (approval number: PSY-S21-006). All data were collected via the Prolific website (a crowd-working platform that allows scientists to recruit online samples; Palan & Schitter, 2018) on March 29, 2022. The project was advertised as a study on "attitudes toward larger-bodied individuals" with an estimated completion time (12 min). Potential participants were eligible to complete the survey if they were adult residents and nationals of the United Kingdom (to reduce the cultural heterogeneity of the sample) and able to complete a survey in English. In the present study, no Prolific filters were used, thus allowing us to recruit a convenience sample of the United Kingdom population. Prolific ID codes and IP addresses were checked to ensure that no participant completed the survey more than once. In addition, we also included an attention check item embedded halfway through the survey, which no participant failed. After providing digital informed consent, participants were asked to complete the scales described above, which were presented in a counter-balanced order in QualtricsTM. The survey was anonymous and participants were paid £1.10 upon completion. All participants received debriefing information at the end of the survey.

2.4. Statistical Analyses

There were no missing data in the present dataset (participants were prompted to respond to missingness). We first assessed inter-scale correlations between all variables included in the present study for women and men separately. We also assessed gender differences on these variables, applying the Benjamini and Hochberg (1995) procedure to control for the false discovery rate (FDR). Next, path analysis was used to test the hypothesised model presented in Figure 1, using robust maximum likelihood estimation (MLR). Fit was assessed using the model chi-squared value, the standardised root mean square residual (SRMR; values < .09 indicative of good fit), the Tucker-Lewis index (TLI; values close to or > .95 indicative of good fit), and the comparative fit index (CFI; values

close to or $> .95$ indicative of adequate fit) (Hu & Bentler, 1999; Swami & Barron, 2019).

We also report the Steiger-Lind root mean square error of approximation (RMSEA) and its 90% *CI* (values close to $.06$ considered to be indicative of good fit and up to $.08$ indicative of adequate fit), but refrained from formally interpreting these values because they tend to be inflated when degrees-of-freedom are low (Kenny et al., 2015). To test whether our final model was invariant across women and men, we used a scaled likelihood-ratio test approach (Satorra & Bentler, 2010).

3. Results

3.1. Preliminary Analyses

Descriptive statistics and inter-scale correlations are reported in Table 1. As can be seen, more negative attitudes toward poverty were significantly associated with stronger personal causal attributions, greater weight stigma, greater weight prejudice, and lower support for anti-discrimination policies and laws among both women and men. The strength of these associations was generally moderate. In addition, we also found that men had significantly more negative attitudes toward poverty, were more likely to make personal causal attributions of obesity, had greater weight stigma and weight prejudice, and were less likely to support anti-discrimination policies and laws than women after controlling for FDR.

3.2. Path Analysis

The hypothesised model in Figure 1 had good fit to the data in the total sample: $\chi^2 = 2.23$, $df = 1$, $p = .14$, CFI = .998, TLI = .981, RMSEA = .056 (90% *CI* = .000, .159, SRMR = .018). However, the paths from attitudes toward poverty and personal attributions for being larger-bodied, respectively, to anti-fat prejudice had only very small and non-significant coefficients (standardized estimates = $.005$ and $.047$, $p = .90$ and $.09$). These paths also explained each less than 1% of variance of anti-fat prejudice (and, thus, less than small associations, according to the benchmarks of Cohen, 1988). We, therefore, simplified the

model and set these two paths to zero. This final model fitted the data equally well¹, $\chi^2 = 5.43$, $df = 3$, $p = .14$, CFI = .996, TLI = .987, RMSEA = .045 (90% CI = .000, .106), SRMR = .018. The final model was also invariant across gender (scaled likelihood-ratio test for a constrained vs. unconstrained multi-group model): $\chi^2 = 10.51$, $df = 7$, $p = .16$. Hence, total-sample parameter estimates for all path coefficients in this model are presented in Figure 1.

Standardised estimates and p -values of the total, direct, and total indirect effects, and of the specific paths of the indirect effects are presented in Table 2. There was a sizable total indirect effect of attitudes toward poverty to support for weight-related anti-discrimination laws and policies, but only the paths that did not include personal attributions for being larger-bodied contributed significantly. The indirect effects of attitudes toward poverty to weight-related stigmatisation and weight-related stigmatisation over personal attributions for being larger-bodied were likewise negligible. Attributable variance was 8% for personal attributions for being larger-bodied, 23% for weight-related stigmatisation, 64% for anti-fat prejudice, and 43% for support for weight-related anti-discrimination laws and policies.²

4. Discussion

In the present study, we hypothesised that individualistic attitudes towards poverty (i.e., a stronger belief that individuals living in poverty are responsible for their condition and discriminated against) would be directly (H₁) and indirectly (via personal attributions for being larger-bodied, and stigmatisation of prejudice towards larger-bodied individuals; H₂) associated with lower support for weight-related anti-discrimination policies and laws. In broad outline, our results are consistent with our hypotheses: we firstly found that attitudes toward poverty were significantly associated with lower support for weight-related anti-discrimination policies and laws, which supports H₁. Additionally, generally supporting H₂, we also found significant mediational pathways, although the most important of these were the pathways linking attitudes toward poverty and support for weight-related anti-

discrimination policies and laws via weight stigma, and the serial link involving both weight-related stigma and prejudice. In contrast, mediational pathways involving personal attributions for being larger-bodied were generally not significant. Our final model was invariant across gender identity, and we consider these findings in their totality below.

Perhaps the most important finding in the present study was that support for weight-related policies and laws are shaped by broader attitudes about poverty and wealth. That is, to the extent that individuals adopt individualistic anti-poverty attitudes (or, conversely, reject structural explanations of poverty), they were less likely to demonstrate support for weight-related anti-discrimination policies and laws. This finding is especially notable in light of a recent review indicating equivocal associations between socioeconomic status (i.e., measured via education and annual income) and support for anti-discrimination laws and policies in a range of nations (Bernard et al., 2019). Taken together, it might be suggested that weight-related attitudes, stigma, and discrimination form part of a repertoire of dispositions that have their roots in socioculturally-learned attitudes about wealth and poverty (Feagin, 1972). Or, more precisely, we suggest that individuals who more strongly hold individualistic anti-poverty attitudes – wherein responsibility for experiencing and failing to escape from poverty are ascribed to individual actors rather than to structures or systemic conditions – are less likely to support weight-related anti-discrimination policies and laws.

Importantly, when we included education (a proxy of socioeconomic status; Brese & Mirazchiyski, 2013) in our analytic model, we found that it did not noticeably affect our final model. One broad conclusion, then, is that weight-related dispositions may be more strongly predicated upon understandings of poverty rather than one's socioeconomic status. In this view, it is important to note how larger bodies are positioned sociologically and culturally: within neoliberal health discourse and popular culture more broadly, at least in the United Kingdom, the larger body is cast as both a visible state of lacking in self-control (Hatherley,

2015; Mulderrig, 2017; Raisborough et al., 2019, 2022; Rich, 2011) and as socioeconomically impoverished (Raisbough, 2016; Wacquant, 2008). That is, the larger body is symbolically constructed as a working-class body or as a metaphor for lower socioeconomic status (Bernard et al., 2019). From this point-of-view, individualistic anti-poverty attitudes take on added meaning: not only do they serve to maintain a *status quo* that favours those of higher socioeconomic status, they also facilitate blame directed at metaphoric larger bodies that are conflated with low socioeconomic status (Bernard et al., 2019; Raisborough, 2016). In its most direct form, then, individualistic anti-poverty attitudes are associated with lower support for weight-related anti-discrimination policies and laws precisely because larger-bodied individuals are cast as being responsible for their experiences and not in need of support from structural assistance in the form of policies or laws.

One way in which this likely occurs is in attitudes toward poverty facilitating and legitimising weight-related stigmatisation. Indeed, the results of our study supported such a mediational link, such that weight-related stigma significantly mediated the relationship between attitudes toward poverty and support for weight-related anti-discrimination policies and laws. It is likely that individualistic anti-poverty attitudes legitimise weight-related stigma as a means of “keeping people down” (Link & Phelan, 2014; Phelan et al., 2008); that is, weight-related stigma can be viewed here as the instrument or tool (cf. Bourdieu, 1987) through which one group subordinates another, thus maintaining a *status quo* in which blame for both the experience of poverty and for being larger-bodied is ascribed to the individual (Boero, 2012). Importantly, while previous work has supported a link between stigmatising attitudes and support for public health initiatives focused on weight (e.g., Chambers & Traill, 2011; Sikorski et al., 2011), ours is the first to place this link within the broader context of attitudes toward poverty.

Our results also showed that a serial mediation relationship was significant, such that attitudes toward poverty were associated with weight-related stigma and, in turn, prejudice and thence support for weight-related anti-discrimination policies and laws. The central portion of this serial link is consistent with Crandall and Biernat's (1990) model of anti-fat attitudes, which suggests that prejudice is one outcome of stigmatising views of larger-bodied individuals. Moreover, weight-related prejudice has been shown to be significantly associated with lower support for weight-based anti-discrimination policies and laws (Berg et al., 2016), which is again consistent with our findings. However, the novelty of our findings is suggesting that individualistic anti-poverty attitudes may facilitate weight-related stigma, which then allows for greater anti-fat prejudice and, in turn, lower support for weight-related anti-discrimination policies and laws. This, to us, would seem to be the key take-home message of the present study, namely that individualistic anti-poverty attitudes facilitate both weight-related stigma and prejudice that serve to dampen support for structural policies and laws focused on weight.

One final aspect of our results is worthy of some commentary. While we found that attitudes toward poverty were significantly and directly associated with personal (causal) attributions of being larger-bodied, mediational relationships that involved personal attributions as a mediator did not reach significance. That is, and as expected, individualistic anti-poverty attitudes were significantly associated with a greater likelihood of making personal causal attributions of being larger-bodied, which in turn was associated with greater weight-related stigma. However, in contrast to previous work (e.g., Beeken & Wardle, 2013; Mazzocchi et al., 2015), personal weight-based attributions were not directly associated with support for weight-related policies and laws, nor did any of the mediational pathways involving this construct reach significance. It is possible that, when viewed concurrently with both weight-related stigma and anti-fat prejudice, personal attributions for being larger-

bodied does not offer any additional explanatory power. Indeed, our correlational analyses also indicated that personal attributions were not significantly associated with support for weight-related policies and laws.

One of the strengths of the present study lies in the contextualisation we can afford understandings of support for weight-related anti-discrimination policies and laws. That is, our work suggests that correlates of support for weight-related anti-discrimination policies and laws, such as weight-related stigma and anti-fat prejudice, do not emerge in a vacuum. Rather, we suggest that attitudes toward poverty are the cognitive and affective basis that allows for the development of negative weight-related attitudes and behavioural dispositions. To the extent that being larger-bodied is conflated with living in poverty (Hatherly, 2015), socioculturally-learned attitudinal dispositions around poverty is what likely affords the stigmatisation, discrimination, and bias against larger-bodied individuals. This, in turn, highlights the importance of considering the socio-political context in which stigmatising beliefs surface and the way in which support for weight-related anti-discrimination policies and laws is likely shaped by a myriad of learned attitudes that include one's beliefs about poverty.

4.1. Constraints on Generalisability

Despite the theoretical importance of our findings, a number of limitations and constraints on generalisability (Simons et al., 2017) should be considered. First, it is possible that our findings are limited in terms of its generalisability because of sampling and recruitment constraints. For instance, because we recruited a convenience sample on Prolific, our sample should not be considered representative of the wider United Kingdom population. Although we have no reason to think that our findings would not replicate with a more representative United Kingdom sample, it should be noted that – compared to the latest available data (Organisation for Economic Co-operation and Development, 2019) – our

sample was more highly educated than the United Kingdom population. Other sample demographics were broadly in line with United Kingdom census data and Prolific has been shown to produce high-quality data (Peer et al., 2022), but it would nevertheless be useful to replicate our findings with additional, representative samples of the United Kingdom.

In a similar fashion, we cannot generalise our findings beyond the United Kingdom, particularly as weight-related attitudes likely differ across nations and cultures (Puhl, 2022). Although other scholars have applied a similar theoretical and ontological perspective to understand issues of fat-phobia in others parts of the industrialised world (e.g., Stoll, 2019), it is quite possible that factors unique to the United Kingdom mean that our findings are nationally bound. Alternatively, it is also possible that stigma and discrimination at the intersection of weight and social class are peculiarly unique to the United Kingdom. For instance, although a similar perspective has been considered in the Netherlands and Belgium (Lisser & de Smaele, 2020), social class – including its meanings and implications – is perhaps more institutionalised, visible, and tangible in the United Kingdom than in other similar countries (Halsey, 1995; Pevalin & Rose, 2002). This, in turn, may mean that the direct and indirect links between attitudes toward poverty and support for weight-related policies and laws may be stronger in the United Kingdom compared to other nations.

Relatedly, because of our study design, we are not able to differentiate between targets of weight-related stigma and discrimination; that is, we are unable to examine whether the final path analytic model would hold when the target of bias and discrimination is varied. Indeed, there is evidence to suggest that weight-related stigma and discrimination may be experienced more strongly by women, racialised minority groups, and sexual minority groups (for reviews, see Gailey, 2014; Puhl & Lessard, 2020). Moreover, much of the neoliberal anti-obesity and fat-shaming discourse that casts doubt on the capacity of larger-bodied individuals is filtered through intersectional lenses, with women of colour in particular

frequently being the objects of stigmatisation and marginalisation (Hopson, 2019; Sanders, 2017; Strings, 2019). As such, it will be important for future work to better understand how attitudes toward poverty may help to reinforce racialised and gendered conceptions of larger-bodied individuals.

Another constraint on generalisability may have been triggered by our advertising of our study as being about “attitudes toward larger-bodied individuals”, as this may have caused response biases in recruitment. Likewise, we cannot entirely rule out common method biases, given that we were reliant on self-reported data. In terms of our analysis, it should be remembered that our data were cross-sectional, which in turn limits the possibility of drawing causal conclusions. Path analysis also limits the possibilities of considering possible bi-directional relationships, such as the possibility that support for weight-related anti-discrimination policies and laws are an antecedent rather than outcome of weight-related stigma. Indeed, although it is ontologically and developmentally implausible, it is also possible that attitudes toward weight-related policies and laws shape attitudes toward poverty, or that there are complex bi-directional links between these constructs. Nevertheless, in keeping with recent discussions about the nature of causal inferences (Grosz et al., 2020) and the limits of experimental psychology (Diener et al., 2022), we suggest that hypothesised model was supported by existing theoretical foundations and that we have interpreted associations based on available evidence (see also Footnote 2). If nothing else, our work points at plausible mechanistic pathways that could be further interrogated using alternative methodological frameworks in future research.

Finally, while our study was focused on situating weight-related attitudes and dispositions within the context of attitudes toward poverty, there may be ways in which the present work could be extended and our findings made more generalisable. For instance, the present study did not include direct measures of socioeconomic status, which may have been

confounding variables. As such, future work might benefit from including more explicit measures of socioeconomic status (e.g., financial security, annual or monthly income, social class), although measures of socioeconomic status may also be contextually limited. Beyond socioeconomic status, there may be value in considering other individual difference traits (e.g., just-world beliefs, social dominance orientation; see Arnulf et al., 2022; Swami et al., 2013) that may be expected to shape both weight-related attitudes, as well as beliefs about poverty (i.e., an underlying third factor that contributes to both exogenous and endogenous variables in the present work). Conversely, it may also be useful to consider fat acceptance (Kase & Mohr, 2022) as a buffer against negative weight-related attitudes. Such replicatory work would also benefit from considering the extent to which findings are consistent across social identity groups within nations (e.g., across social classes and across the full spectrum of gender identity) and across nations (e.g., across nations that vary in rates of population obesity or that have historically valued larger bodies; Swami, 2007).

4.2. Conclusion

These limitations notwithstanding, the present study suggests that attitudes toward poverty may be an important cognitive or affective basis that allows for the development, maintenance, and manifestation of a range of negative weight-related attitudes. This finding, in turn, may have important theoretical and practical implications. From a theoretical point-of-view, our work highlights the importance of situating weight-related beliefs and attitudes within socio-political frameworks and to more carefully consider how and why negative weight-related dispositions are produced. More specifically, our results suggest that – beyond negative weight-related dispositions – attitudes toward poverty may be a further impediment to the enactment of weight-related anti-discrimination laws and policies. Similarly, but from a practical point-of-view, our work suggests that interventions to combat weight-related stigmatisation may be less efficacious if they do not also challenge assumptions and beliefs

about the nature and meaning of poverty. Indeed, given that beliefs about poverty originate in childhood and adolescence (e.g., Chafel & Neitzel, 2005), intervention efforts targeting young people may be particularly effective in shifting both attitudes about the poor and larger-bodied individuals (e.g., Mistry et al., 2012).

Footnotes

¹This model also remained stable after controlling for education. Education had a significant path only to attitudes toward poverty (standardised estimate = $-.16$, $p = .001$). However, this did not noticeably alter the magnitude of the other paths; hence, education was not included in the final model.

²Based on reviewer feedback, we attempted to test the sensitivity of our final model. However, switching the direction of paths in the model led to statistically indistinguishable alternative models (i.e., models with the same fit to the data) because most variables were connected with all other variables in our model. Additionally, all data were collected at the same time. Thus, the validity of the proposed sequence of variables in the model could not be directly tested. However, we probed the robustness of the indirect effect estimates of our model by fitting an alternative parallel multiple mediator model (Hayes, 2018) to the data. In this model, no causal sequence was assumed among the mediators, but all mediators were instead treated as parallel, each connecting the predictor and the outcome. This allowed us to estimate indirect effects without assuming any causal structure among the mediators (see Loh et al., 2022, for a discussion of such an approach in interventional designs). The parallel multiple mediator model also incorporated a direct path from attitudes toward poverty to support for weight-related anti-discrimination laws and policies, and allowed for correlations between the mediators. Thus, it had no degrees of freedom ($df = 0$) and fitted the data perfectly. The model resulted in standardised indirect effect estimates for the paths from attitudes toward poverty \rightarrow stigma \rightarrow support of $-.14$ ($p < .001$), attitudes toward poverty \rightarrow

attributions \rightarrow support of .02 ($p = .155$), and attitudes toward poverty \rightarrow prejudice \rightarrow support of $-.12$ ($p < .001$). Overall, these results lend support to the previously obtained results, as they highlight relevant contributions of stigma and prejudice, but not personal attributions.

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Table 1

Descriptive Statistics and Inter-Scale Correlations between all Instruments Included in the Present Study (Data for Women are Reported in Top Diagonal and for Men in the Bottom Diagonal).

		(1)	(2)	(3)	(4)	(5)
(1) Attitudes toward poverty			.33**	.41**	.35**	-.34**
(2) Causal attributions		.19*		.20*	.24**	.01
(3) Weight stigma		.49**	.15*		.78**	-.58**
(4) Weight prejudice		.38**	.13	.79**		-.59**
(5) Support for policies and laws		-.46**	-.13	-.57**	-.56**	
Women§	<i>M</i>	2.16§	30.72	1.64	2.21	3.94
	<i>SD</i>	0.59	6.27	0.99	1.31	0.58
Men	<i>M</i>	2.33	32.40	2.33	2.98	3.53
	<i>SD</i>	0.58	4.95	1.24	1.67	0.66
<i>t</i>		2.94	2.94	6.03	5.07	6.53
<i>p</i>		.002	.002	< .001	< .001	< .001
<i>d</i>		0.59	5.64	1.13	1.50	0.62

Table 2

Total, Direct, and Indirect Effects.

Path	Standardised estimate
Total, direct, and total indirect effects ^a	
Poverty → support	-.42***/-.17**/-.25***
Poverty → stigma	.47***/.45***/.02
Poverty → prejudice	.38***/NA/.38***
Specific paths of indirect effects	
Poverty → stigma → support	-.13***
Poverty → stigma → prejudice → support	-.11***
Poverty → attributions → stigma → support	-.01
Poverty → attributions → stigma → prejudice → support	-.01
Poverty → attributions → stigma	.02
Poverty → stigma → prejudice	.36***
Poverty → attributions → stigma → prejudice	.02

Note. NA = not applicable.

^a Numbers represent (in this sequence) the total, the direct, and the total indirect effect (= sum of all specific paths of each indirect effect).

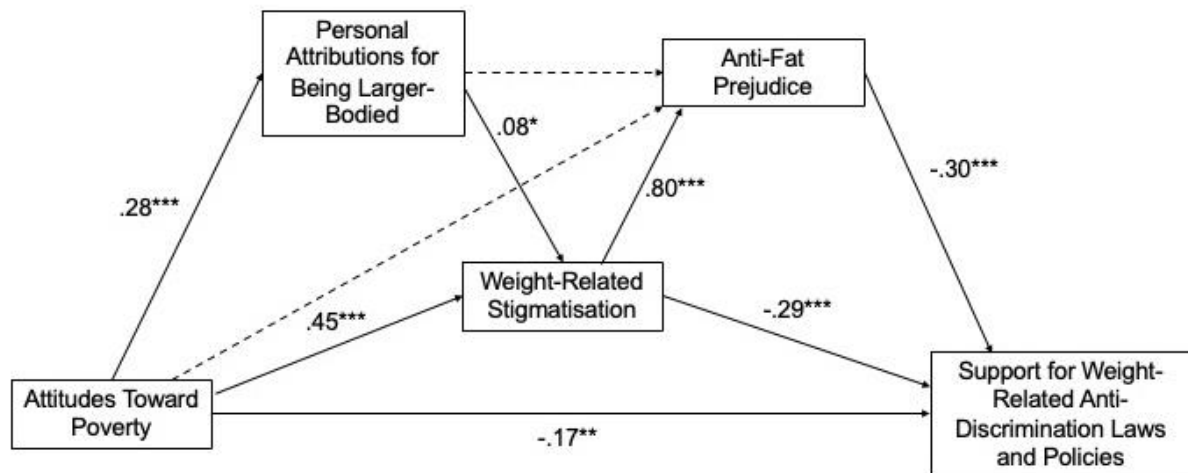


Figure 1. The final model in the present study along with standardised parameter estimates.

Dotted lines indicate pathways that were included in the hypothesised model but eliminated from the final model.