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Stereotypes and Discrimination Toward Weight Loss Injection Users

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ABSTRACT

Background: GLP-1 receptor agonists such as semaglutide and tirzepatide are increasingly prescribed for weight loss and prevention of obesity-related diseases. Although effective, users are likely to face stigma, as medication-based weight loss is often perceived as less legitimate than lifestyle changes. We investigated stereotypes and discrimination toward weight loss injection users through the lens of the Stereotype Content Model.

Methods: Across three quota-representative online studies with UK adults, we assessed perceptions of warmth and competence, behavioral discrimination, and potential explanatory mechanisms. Study 1 ($N = 300$) compared evaluations of four groups differing in weight status and weight loss methods. Study 2 ($N = 301$) experimentally manipulated weight loss method (injections vs. diet and exercise) and tested the roles of fairness and healthiness perceptions, as well as behavioral discrimination using a dictator game. Study 3 ($N = 201$) evaluated whether communicating the fairness and healthiness of injections could improve user evaluations.

Results: Weight loss injection users were perceived as more competent than individuals with overweight, but less warm and competent than normal-weight people or those losing weight through diet and exercise. Discrimination manifested behaviorally, with participants allocating less money to injection users. Fairness perceptions predicted warmth, while healthiness perceptions predicted competence. Importantly, providing corrective information about the fairness and healthiness of injections enhanced warmth and competence ratings and reduced discriminatory behavior.

Conclusions: Weight loss injection users are subject to stereotype-driven stigma that may pose barriers to treatment uptake. Targeted communication addressing fairness and health concerns can reduce stigma and support broader adoption of the medications.

1 | Introduction

Weight-loss injections contain GLP-1 receptor agonists such as semaglutide or tirzepatide, which promote long-term weight reduction by delaying gastric emptying, enhancing satiety, suppressing appetite, and improving glycemic control (Wang et al. 2024). The injections, marketed under names like Ozempic, Wegovy, or Mounjaro, are approved for adults with obesity or overweight with comorbidities. According to clinical trials, weight loss injections can result in weight loss between 15% and 20% (Ryan et al. 2024; Wilding et al. 2021). While their efficacy varies considerably across individuals (Su et al. 2026) and various side effects ranging from gastrointestinal adverse events (Ismaiel et al. 2025) to the risk of malnutrition have been reported in the past (Fallows 2025), the new medications may provide a pathway to prevent or treat weight-related

comorbidities such as diabetes, heart disease, stroke, and certain cancers (Lincoff et al. 2023; Wang et al. 2024).

While prescriptions for weight loss injections are increasing in many countries (Farahvash et al. 2025), most people living with obesity have not been recorded to utilize the new drugs so far. High costs and access disparities are often identified as key deterrents to adopting weight loss injections as they are usually not covered by health insurance (Naveed et al. 2025; Radwan et al. 2025). For example, data from December 2024 reveal that 95% of about 500,000 weight loss injection users from the UK are privately covering the cost of about GBP 150 a month (Moore 2025) but it is estimated that nearly half the people self-reporting as obese would use the drug if supplied for free by the National Health Service (IPSOS 2024). However, prescription costs are unlikely to be the only uptake barrier. While weight loss injections are believed to reduce obesity stigma by reframing overweight as a medical condition rather than a moral failing (Heitmann 2025), recent studies suggest that using the medication itself may be stigmatizing. For example, weight loss injection users reported on Reddit that they had been regarded as cheaters (Plenn et al. 2025), and online studies with US participants revealed that taking the medication reduced perceived effort and praiseworthiness of the resulting weight loss, even when augmented by diet and exercise (Bachmakova et al. 2025). This mirrors a well-established pattern in the bariatric surgery literature, where individuals who lose weight through surgery are rated as lazier, less competent, and less responsible for their weight loss than those who lose weight through diet and exercise (Fardouly and Vartanian 2012; Vartanian and Fardouly 2014). Drawing on attribution theory (Weiner 1985), these evaluations reflect the lay belief that weight loss is only meritorious when achieved through personal effort (Black et al. 2014). This can have serious consequences; if individuals are negatively stereotyped based on their use of weight loss injections, this can lead to discrimination and impede broader adoption of the medication.

In this article, we aim to investigate and explain stereotypes toward weight loss injection users. According to the Stereotype Content Model (Fiske et al. 2002), all interpersonal impressions form along two dimensions: warmth (perceived friendliness, trustworthiness, and intent) and competence (perceived ability, skill, and efficacy). Varied combinations of these dimensions lead to distinct stereotypes and respective emotional responses. The Behaviors from Intergroup Affect and Stereotypes (BIAS) Map (Cuddy et al. 2007) extends the Stereotype Content Model by specifying how warmth and competence perceptions translate into distinct behavioral tendencies. Specifically, low warmth predicts active harm behaviors (e.g., harassment and resource withholding), whereas low competence predicts passive harm behaviors (e.g., neglect and exclusion). Previous research indicated that individuals with obesity are often perceived as incompetent, leading to disgust and reduced helping behavior (Baker and Florack 2021; Levine and Schweitzer 2015; Schmidt et al. 2025). Similar behaviors may be noticed in the case of weight loss injections. Although GLP-1 receptor agonists are typically prescribed alongside dietary and lifestyle modifications rather than as a replacement for them (Scragg et al. 2025), lay observers may nonetheless perceive medication use as substituting for personal effort, and thus as lacking autonomy and the ability to work hard. We hypothesize that beliefs that injections represent a shortcut to weight loss reduce perceptions of warmth and thus fuel active discrimination.

Across three survey studies, we explored warmth and competence perceptions, as well as discrimination toward weight loss injection users, examined potential mechanisms explaining the stereotyping, and tested a simple intervention to reduce it. In Study 1, participants evaluated targets from four groups differing in weight status and weight loss method on warmth and competence. Study 2 isolated the comparison between injection and diet/exercise users in a between-participant design, measured fairness and healthiness perceptions as potential mediators, and added a behavioral measure of discrimination. Study 3 tested if reading a vignette that explicitly conveyed the fairness and healthiness of weight loss injections improved evaluative and behavioral measures. Together, the studies move from establishing the existence of bias to explaining and reducing it. The findings help to better understand public views on weight loss injections and suggest promising pathways for reducing stereotyping and discrimination, thereby supporting the adoption of weight loss medication.

2 | Study 1: Investigating Stereotyping Toward Weight-Loss Injection Users

Study 1 assessed warmth and competence perceptions of successful weight loss injection users in comparison to individuals who lost weight through dietary changes and exercising, as well as people with overweight who made no effort to lose weight, and those who consistently maintained their normal weight. Based on the above considerations, we assumed that weight loss injection users would be rated more positively than people with overweight but as less positively than the other two groups.

2.1 | Methods

2.1.1 | Participants

A total of 300 individuals from the United Kingdom participated in the short online survey on August 5, 2025. The sample was recruited on Prolific and quota-representative for age, gender, and ethnicity. Age range of the participants was from 18 to 79 years ($M = 46.84$ years, $SD = 15.61$ years), 52% were female and 48% male. Roughly, half of the participants were overweight or obese ($BMI \geq 25$, 52%), and 52% were currently attempting to lose weight. While 88% had heard of weight loss injections, only 20 participants (7%) were currently using them. Participants received 0.50 GBP for completing the survey.

2.1.2 | Procedure, Materials, and Measures

Participants were asked to rate four different groups of people (within-participant experiment). The sample size was deemed sufficient to detect small differences between the groups ($f = 0.1$, $\alpha = 0.05$, $1-\beta = 0.95$, $r = 0.5$). The four groups were presented in brief single-sentence descriptions in random order: normal weight people (*Some people are of normal weight and always have been*), overweight people (*Some people are overweight and do nothing to lose weight*), weight-loss injection users

(*Some people were overweight but achieved normal weight through weight-loss injections such as Ozempic, Wegovy, and Mounjaro*), and those losing weight through diet and exercise (*Some people were overweight but achieved normal weight through exercise and a healthy diet*). Each group had to be rated (*How would you describe these people?*) on eight semantic differentials adapted from Friehs et al. (2022); the 5-point items assessed warmth (*dishonest–honest, ill-natured–good-natured, unfriendly–friendly*, and *cold–warm*) and competence (*lazy–hardworking, inefficient–efficient, incompetent–competent*, and *careless-thorough*). Items were averaged to a score ranging from 1 to 5, with higher values indicating higher warmth/competence perceptions.

2.1.3 | *Data Analyses*

Scale reliability and construct validity were assessed via confirmatory factor analysis. Group differences in warmth and competence were tested using paired-samples *t*-tests, with Cohen's *d* as a measure of effect size.

2.2 | Results

A confirmatory factor analysis with robust maximum likelihood estimator, modeling warmth and competence with a separate factor for each group, demonstrated excellent fit to the data ($CFI = 0.962$, $RMSEA = 0.047$). Further group-wise analyses showed that warmth and competence ratings were internally consistent ($\omega_{total} = 0.87–0.93$).

Warmth ratings slightly differed between the four groups (Figure 1, panel A). On average, injection users were attributed less warmth ($M = 3.21$, $SD = 0.66$) compared to those who were consistently of normal weight ($M = 3.40$, $SD = 0.59$, $t(299) = 6.13$, $p < 0.001$, $d = 0.35$) and those who had lost weight through diet and exercise ($M = 3.62$, $SD = 0.64$, $t(299) = 10.61$, $p < 0.001$, $d = 0.61$) while no significant difference could be found in comparison to overweight people ($M = 3.21$, $SD = 0.64$, $t(299) = 0.02$, $p = 0.981$, $d = 0.00$). Differences were most pronounced when looking at the perceived honesty of the groups; on this single item, injection users ($M = 3.06$, $SD = 0.87$) were rated even worse than overweight individuals ($M = 3.19$, $SD = 0.76$, $t(299) = 2.30$, $p = 0.022$, $d = 0.13$).

Competence ratings (Figure 1, panel B) strongly differed between the groups. On average, injection users ($M = 2.97$, $SD = 0.81$) were attributed more competence than overweight people ($M = 2.46$, $SD = 0.77$, $t(299) = 11.39$, $p < 0.001$, $d = 0.66$) but they were seen as less competent than consistently normal weight people ($M = 3.57$, $SD = 0.62$, $t(299) = 11.89$, $p < 0.001$, $d = 0.69$) and those who had lost weight through diet and exercise ($M = 4.19$, $SD = 0.64$, $t(299) = 21.71$, $p < 0.001$, $d = 1.25$). This pattern was stable across single items; weight loss injection users were viewed as rather lazy, inefficient, incompetent, and careless compared to people who had always been slim or reached normal weight through diet and exercise.

People were perceived in a varied manner based on their weight loss approaches (injections vs. diet and exercise). To investigate if this distinction was universal or related to participant characteristics, we regressed the differences in warmth perceptions for both groups on sociodemographic and weight loss-related variables. While higher age ($b = -0.01$, $p < 0.001$), male gender (compared to female gender, $b = -0.17$, $p = 0.031$), and using weight loss injections ($b = -0.37$, $p = 0.018$) were associated

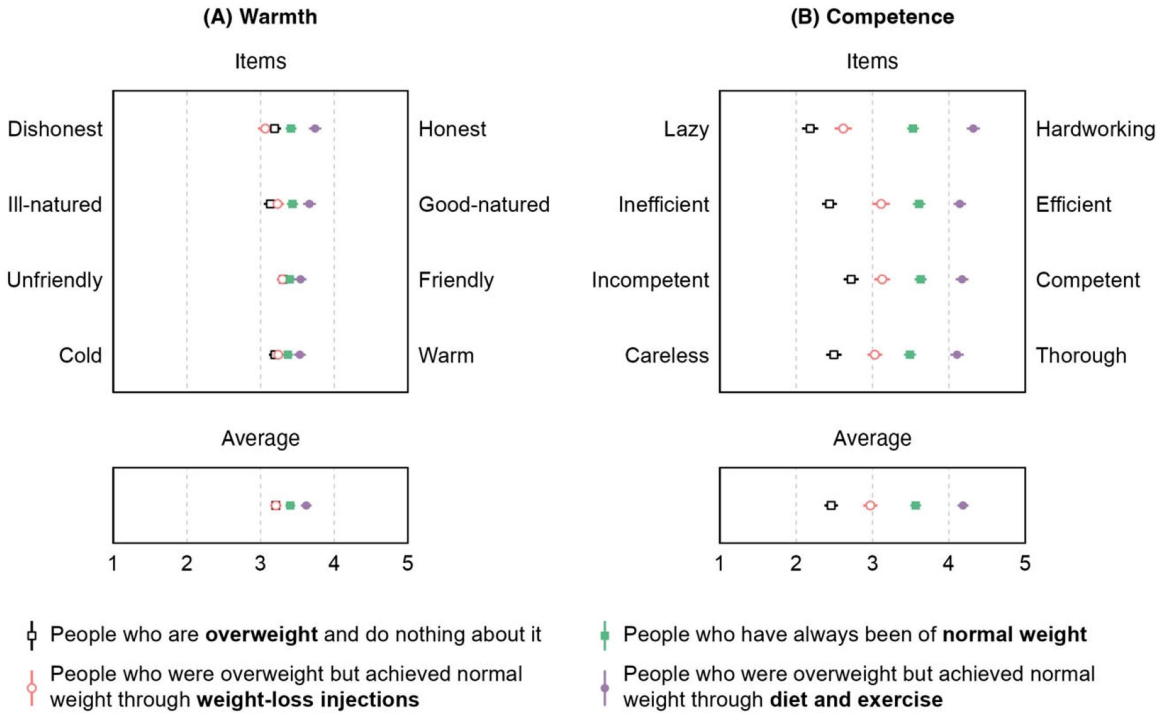

FIGURE 1 | Warmth and competence ratings for weight-loss injection users and other groups in Study 1. *Note:* Top boxes show item-level ratings while bottom boxes indicate average (A) warmth and (B) competence evaluations for four different groups of people. Error bars indicate 95% confidence intervals.

with smaller differences in warmth, the gap in evaluations was not found to relate to participant BMI, weight loss effort, or having heard of weight loss injections before ($ps > 0.328$, see online supplement for details). Conducting the same regression for competence ratings revealed similar relationships; while age ($b = -0.01$, $p = 0.014$) and using weight loss injections ($b = -0.48$, $p = 0.036$) were associated with perceiving smaller differences between weight loss injection users and those losing weight through diet and exercise, no effects were found for participant gender, BMI, weight loss effort, or knowledge of weight loss injections ($ps > 0.095$, see online supplement for details).

2.3 | Discussion

The results highlight that weight loss injection users are evaluated as more competent than overweight people who are not engaged in any efforts to lose their excess weight, but less warm and competent than people who have been consistently lean and, to an even larger extent, those who achieved normal weight through diet and exercise. Being of normal weight leads to better attributions than being overweight, confirming previous research on fat shaming and obesity stigma (Himmelstein and Tomiyama 2015), but the way people achieve normal weight appears to significantly influence their evaluation too. In other words, individuals are not only concerned about the outcome (being lean) but are also more inclined toward certain paths to achieve the same. Importantly, the differences in evaluations of those using injections and those losing weight through diet and exercise did not decrease with participants' BMI or their own weight loss efforts. Such as weight stigma is often internalized (Puhl et al. 2018), individuals with overweight—just like normal weight people—seem to hold the misconception that injections are an inappropriate method of weight loss. Yet, it is unclear *why* weight loss injection users are evaluated worse than those losing weight through diet and exercise—a question investigated in Study 2.

3 | Study 2: Exploring the Role of Perceived Fairness and Healthiness

The worse evaluation of weight loss injection users compared to those losing weight through diet and exercise may be explained in multiple ways. First, weight loss injections are likely to be perceived as an unfair shortcut to normal weight, as taking injections requires less effort than monitoring calorie intake and exercising regularly. Attribution theory (Weiner 1985) holds that people evaluate others partly on the basis of perceived controllability and effort; when a positive outcome is attributed to personal effort, evaluations are more favorable, whereas outcomes attributed to external means elicit less credit (Black et al. 2014). Weight loss injections may violate the subjective effort-reward balance proposed by Equity Theory (Adams 1963), whereby observers perceive the rewards of weight loss as disproportionate to the minimal effort invested. In addition, Cognitive Dissonance Theory (Festinger 1957) suggests that observers who hold the belief that meaningful outcomes require hard work may experience dissonance when confronted with easy-route success, resolving it by downgrading the perceived value of the weight loss itself. These (un-)fairness considerations may particularly explain the negative perception that injection users are less warm. Second, weight loss injections may also be understood as an unhealthy means to lose weight. As losing excessive weight in a short duration is often considered to be unsustainable and harmful, confidence in the efficacy and safety of weight loss injections may be low, potentially explaining why injection users are attributed much lower competence in comparison to those losing weight through diet and exercise. In this study, the explanatory potential of fairness and healthiness perceptions was investigated in detail. In contrast to Study 1, it employed a between-participant design (to reduce carryover and demand effects) and investigated behavioral manifestations of the evaluative discrimination between injection users and those losing weight through diet and exercise.

3.1 | Methods

3.1.1 | *Participants*

A total of 301 individuals from the United Kingdom participated in the short online experiment on August 20, 2025. The sample was recruited on Prolific and quota-representative for age, gender, and ethnicity. Participants from Study 1 were excluded from participation. Similar to Study 1, age ranged from 18 to 78 years ($M = 46.66$ years, $SD = 14.99$ years), 51% were female and 49% male. About half of the participants were overweight or obese ($BMI \geq 25$, 52%), 52% were currently attempting to lose weight, 88% were aware of weight loss injections, and 15 participants (5%) were currently using them. Participants received 0.70 GBP for completing the survey.

3.1.2 | *Procedure, Materials, and Measures*

Experimental manipulation. At the beginning of the study, participants were randomly assigned to the *injection* or *diet and exercise* condition. In both conditions, they learned about Alex, who had lost weight through injections or diet and exercise, respectively: *Meet Alex. Alex was obese but recently lost 40 pounds over 6 months. Alex did so by* [injection condition: *receiving regular weight-loss injections*; diet and exercise condition: *following a strict diet and exercise program*]. *Alex now maintains a normal weight, feels well and more attractive.*

Fairness and healthiness perceptions. After reading the vignette, participants were asked about their agreement with six items concerning the fairness (e.g., *Praise and admiration for Alex's weight loss are well deserved*; *Any advantages Alex experienced due to the weight loss are fair*) and four items relating to the healthiness of Alex' weight loss (e.g., *Alex's approach to weight loss is unsafe; Alex' weight loss results are likely to last*), using a 5-point scale from *strongly disagree* to *strongly agree*. The fairness items were designed to capture distributive fairness perceptions (Adams 1963), reflecting the degree to which the rewards of weight loss (including admiration, pride, and material advantages) are judged as proportionate to the effort invested. The fairness and healthiness scales were newly developed for the present research. Initial evidence for their reliability is provided by excellent internal consistency (see Results), face validity is supported by the items' direct

correspondence to the theoretical constructs they are intended to capture. Ratings were coded in the same direction and then averaged to a score ranging from 1 to 5, with higher values indicating stronger fairness/healthiness perceptions.

Warmth and competence. Participants were asked to rate Alex on the same eight semantic differential items used in Study 1.

Behavioral discrimination. A dictator game was used to assess the behavioral manifestation of evaluative discrimination. Participants were asked to imagine they were offered GBP 100 and had to split the money between themselves and Alex. They were permitted to allot any amount between GBP 0 and GBP 100 (in steps of 1 GBP).

3.1.3 | *Data Analyses*

Measurement invariance of all scales across conditions was evaluated via a sequence of confirmatory factor analyses. Between-condition differences in fairness, healthiness, warmth, competence, and dictator-game allocations were tested with Welch's independent-samples *t*-tests, using Cohen's *d* as effect size indices. The mediating roles of fairness and healthiness perceptions were examined using a structural equation model.

3.2 | Results

A series of confirmatory factor analyses with robust maximum likelihood estimator was conducted to test the measurement invariance of fairness, healthiness, warmth, and competence across experimental conditions. The configural model (in which all four factors were specified for both groups, but all parameters were freely estimated) demonstrated adequate fit to the data ($CFI = 0.939$, $RMSEA = 0.065$). Constraining factor loadings to equality across groups (metric invariance) did not worsen model fit ($\Delta CFI = -0.004$, $\Delta RMSEA = 0.001$). While adding equality constraints on item intercepts (scalar invariance) reduced fit ($\Delta CFI = -0.027$, $\Delta RMSEA = 0.01$), it could still be considered acceptable (Kline 2023). Further analyses showed that fairness, healthiness, warmth, and competence ratings were internally consistent ($\omega_{total} = 0.89–0.92$).

As shown in Figure 2, all measurements differed between the experimental conditions. When Alex was described as having lost weight trough injections instead of diet and exercise, the person was rated as less warm ($M_{injections} = 3.34$, $SD_{injections} = 0.66$, $M_{diet\ and\ exercise} = 3.68$, $SD_{diet\ and\ exercise} = 0.80$, Welch's $t(287.12) = 3.94$, $p < 0.001$, $d = 0.45$) and competent ($M_{injections} = 3.13$, $SD_{injections} = 0.76$, $M_{diet\ and\ exercise} = 4.06$, $SD_{diet\ and\ exercise} = 0.91$, Welch's $t(289.23) = 9.56$, $p < 0.001$, $d = 1.10$), confirming the results of Study 1. When looking at behavioral discrimination in the dictator game, a small but significant effect was observed; Alex was given less money when losing weight through injections ($M_{injections} = 23.56$ GBP, $SD_{injections} = 22.86$ GBP, $M_{diet\ and\ exercise} = 29.63$ GBP, $SD_{diet\ and\ exercise} = 25.46$ GBP, Welch's $t(295.14) = 2.17$, $p = 0.031$, $d = 0.25$).

The evaluative and behavioral discrimination seemed to be related to fairness and healthiness perceptions as Alex's weight loss was also perceived as less fair ($M_{injections} = 3.70$, $SD_{injections} = 0.88$, $M_{diet\ and\ exercise} = 4.57$, $SD_{diet\ and\ exercise} = 0.46$, Welch's $t(227.08) = 10.86$, $p < 0.001$, $d = 1.25$) and healthy ($M_{injections} = 2.70$, $SD_{injections} = 0.76$, $M_{diet\ and\ exercise} = 3.93$, $SD_{diet\ and\ exercise} = 0.53$, Welch's $t(268.52) = 16.34$, $p < 0.001$, $d = 1.88$) when achieved through injections. To test if fairness and healthiness perceptions could explain the effect of the experimental manipulation on warmth and competence and investigate their relationship with giving in the dictator game, we tested the path model shown in Figure 3. Robust maximum likelihood estimation yielded adequate model fit ($CFI = 0.940$, $RMSEA = 0.069$) and revealed multiple significant pathways. Describing Alex as an injection user again resulted in significantly lower fairness ($\beta = -0.60$, $p < 0.001$) and healthiness ($\beta = -0.75$, $p < 0.001$) ratings. Fairness perceptions were associated with warmth ($\beta = 0.23$, $p = 0.023$) but not competence ($\beta = 0.08$, $p = 0.398$), while healthiness perceptions were more

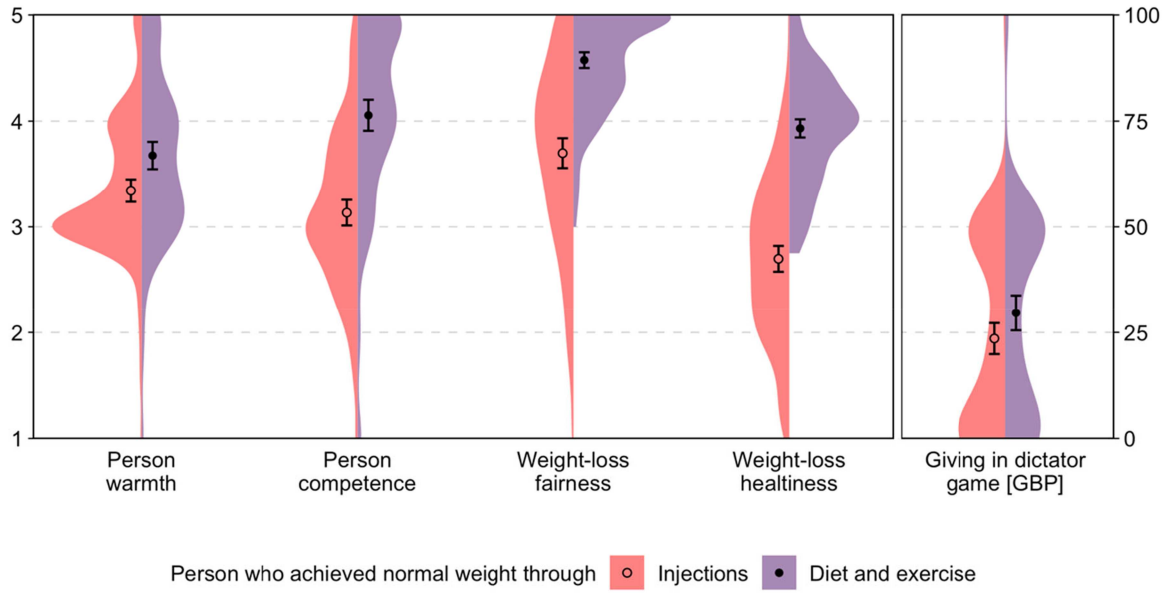

FIGURE 2 | Differences between experimental conditions in Study 2. *Note:* Dots denote means, and error bars visualize confidence intervals.

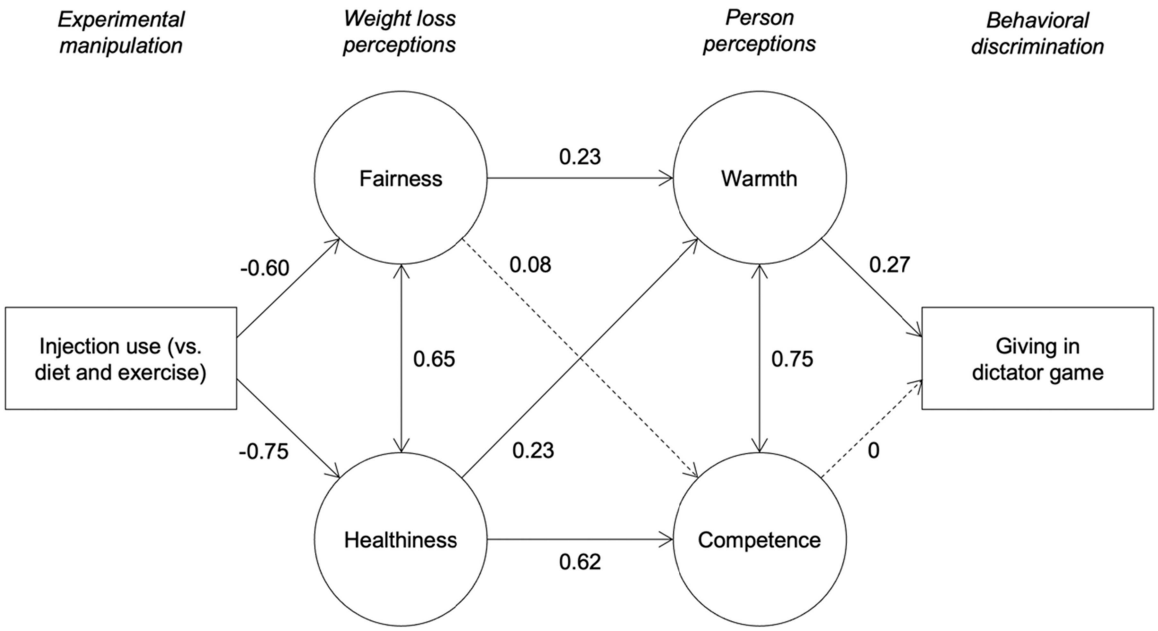

FIGURE 3 | Process model for Study 2. *Note:* Structural equation model with robust maximum likelihood estimation. Simple arrows show directed regressions, double arrows visualize covariances. Numbers indicate standardized estimates; solid lines are significant with $p < 0.05$, while dashed lines are not.

strongly related to competence ($\beta = 0.62$, $p < 0.001$) than warmth ($\beta = 0.23$, $p = 0.049$). Importantly, giving in the dictator game was only associated with warmth ($\beta = 0.27$, $p = 0.011$) but not competence ($\beta = 0.00$, $p = 0.980$). Further statistical details are provided in the online supplement.

3.3 | Discussion

The findings confirm and extend the results of Study 1. People who lose weight through injections instead of diet and exercise are perceived as less warm and competent. Besides these evaluative differences, discriminatory behavior could be observed as well. While discrimination in the dictator game was rather small, potentially because of social desirability, it indicates that weight loss injection users are not only evaluated worse than those losing weight through diet and exercise, but the unfair assessment is also likely to affect treatment in many social interactions. Specifically, weight loss injection users are likely to suffer from the same multitude of private and work-life discriminations that people with overweight or obesity are exposed to (Spahlholz et al. 2016)—despite achieving a normal weight. The BIAS Map (Cuddy et al. 2007) explains why warmth, but not competence, predicted giving in the dictator games. Allocating less money to another person constitutes a form of active harm (a deliberate withholding of resources) which the BIAS Map specifically links to low warmth rather than low competence perceptions. Competence evaluations may nonetheless drive discriminatory behaviors in competence-related scenarios such as decision making at work (e.g., injection users may be passed over for promotion or ostracized from colleagues) or voting behavior (e.g., politicians who used injections for weight loss may be considered less trustworthy and authentic, and are thus not elected). These scenarios more closely resemble passive harm behaviors (neglect and exclusion) which the BIAS Map links to competence perceptions. Future research should test whether competence-driven discrimination emerges in such contexts.

Path analyses showed that evaluative and behavioral discrimination can be explained by fairness and healthiness perceptions. While both fairness and healthiness of the weight loss were found to be lower when injections were used, fairness only seemed to affect warmth, while competence was more strongly related to healthiness. Because weight loss injections are seen as an unfair shortcut, they likely decrease perceptions of user morality, the facet of warmth most closely tied to fairness judgments (Koch et al. 2024). This is consistent with the Study 1 finding that injection users were rated most harshly on the honesty item of the warmth dimension. At the same time, concerns about the healthfulness and sustainability of weight loss injections seem to reduce perceptions of the user's competence. Thus, explaining that weight loss injections can be considered a fair and healthy tool to lose weight may improve evaluation of and discrimination toward the users. This idea was tested in Study 3.

4 | Study 3: Decreasing Discrimination Through Communication

Previous research indicates that enhancing awareness about existing biases and clarifying misunderstandings are likely to reduce stereotyping and discrimination (Turner 2020). In the case of weight loss injections, negative evaluation and discrimination may be lowered by explaining that the method is both fair (because it reduces biological and social barriers of weight loss that are often higher for people with obesity than those with normal weight) and healthy (since the injections are prescribed and monitored by a healthcare professional and demonstrably reduce the risks for weight-related diseases). We therefore preregistered three hypotheses (https://aspredicted.

org/22yk-bpc3.pdf), assuming that providing information about the fairness and healthiness of weight loss injections would increase warmth and competence ratings and decrease discrimination in the dictator game.

4.1 | Methods

4.1.1 | Participants

A total of 201 individuals from the United Kingdom participated in a short online experiment on August 23, 2025. The sample was recruited on Prolific and quota-representative for age and gender. Participants from Studies 1 and 2 were excluded from participation. Participants were 18–81 years old ($M = 46.23$ years, $SD = 15.27$ years), 53% were female, and 47% male. Participants received 0.20 GBP for completing the survey.

4.1.2 | Procedure, Materials, and Measures

Experimental manipulation. At the beginning of the study, participants were presented with one randomly selected vignette about Alex, who lost considerable weight through injections. In the *control* condition, the identical text from Study 2 was used. In the communication condition, additional information was included, explaining that weight loss injections are a fair and healthy measure to promote weight loss:

> *Meet Alex. Alex was obese. For years, Alex struggled with weight despite trying diets, exercise programs, and lifestyle changes. No matter how much effort Alex put in, the body seemed to hold onto the weight, and the lack of progress left Alex frustrated and discouraged. On top of this, everyday challenges like stress and limited access to healthy food made the process even harder. Eventually, Alex began receiving regular weight-loss injections and over 6 months lost 40 pounds. Alex now maintains a normal weight, feels well and more attractive. For Alex, the injections were not a shortcut, but a fair tool that helped overcome real biological and social barriers by regulating appetite and metabolism. Because weight-loss injections are prescribed and medically supervised, they provided Alex with a safe and sustainable way to lose weight. The injections improved key health markers such as blood sugar, cholesterol, and blood pressure, reducing Alex's risk for diabetes, heart disease, and other dangerous conditions. Alex's story shows that weight-loss injections are both a fair and medically sound option for achieving and maintaining a healthier weight.*

Measures. After reading the respective vignette, warmth, competence, and behavioral discrimination were measured for all participants, using similar measures from Study 2.

4.1.3 | Data analyses

Between-condition differences in warmth, competence, and dictator-game allocations were tested using one-sided Welch's independent-samples *t*-tests, with Cohen's *d* as an effect size measure.

4.2 | Results

As shown in Figure 4, communicating the fairness and healthiness of injections increased Alex' perceived warmth ($M_{communicaton} = 3.78$, $SD_{communication} = 0.68$, $M_{control} = 3.34$, $SD_{control} = 0.73$, one-sided Welch's $t(198.55) = 4.43$, $p < 0.001$, $d = 0.63$) and competence ($M_{communicaton} = 3.51$, $SD_{communication} = 0.78$, $M_{control} = 3.20$, $SD_{control} = 0.88$, one-sided Welch's $t(197.62) = 2.62$, $p = 0.005$, $d = 0.37$). Compared to the control group, participants in the communication condition also gave more money to Alex in the dictator game ($M_{communicaton} = 28.34$ GBP, $SD_{communication} = 24.10$ GBP, $M_{control} = 19.49$ GBP, $SD_{control} = 22.34$ GBP, one-sided Welch's $t(196.80) = 2.70$, $p = 0.004$, $d = 0.38$).

4.3 | Discussion

The results indicate that explaining the fairness and healthiness of weight loss injections can significantly improve the

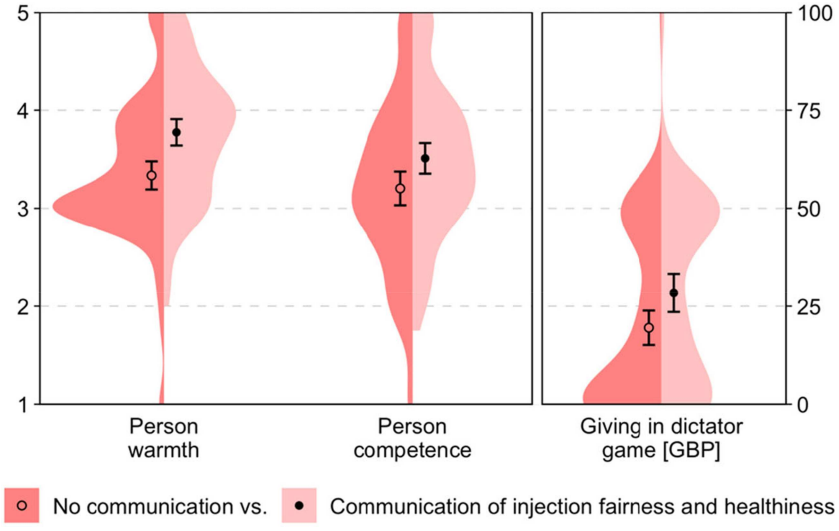

FIGURE 4 | Intervention effects in Study 3. *Note:* Dots denote means, and error bars visualize confidence intervals.

evaluation of its users and reduce discriminatory behavior toward them. Although the study did not assess the underlying mechanism in detail (e.g., we did not assess actual effects on fairness and healthiness perceptions) and effects were limited (e.g., when comparing the results with Study 2, those losing weight through diet and exercise are probably still evaluated as more competent), communication interventions seem to be promising tool for reducing unfairness perceptions and reducing mistrust in weight loss injections. It should be noted, however, that the elaborated vignette not only conveyed information about the fairness and healthiness of injections but also portrayed Alex as persistent and agentic (someone who turned to injections only after sustained prior effort had failed) which may have independently increased warmth ratings beyond any fairness update. The mediation model in Study 2 provides some independent process evidence, as fairness perceptions predicted warmth and healthiness perceptions predicted competence even absent such elaboration, but future research should employ more tightly controlled manipulations and directly measure the hypothesized mediators. By explaining injections in individual and mass communication, physicians, insurance providers, and public health organizations may not only enhance knowledge about the novel weight loss method but also decrease resentment toward its users.

5 | General Discussion

Results from three studies have shown that (a) weight loss injection users are evaluated as less warm and competent than people who lost weight through diet and exercise, (b) that this evaluation relates to discriminatory behavior, and (c) can be explained by perceiving weight loss injections as less fair and healthy, and that (d) addressing such misconceptions can improve evaluation and treatment of weight loss injection users.

Previous research indicates that a large part of the burden associated with overweight and obesity can be explained by stigmatization and exclusion experiences (Puhl and Suh 2015; Spahlholz et al. 2016). Weight loss injections do not only offer a pathway to improve health markers and reduce the risk for weight-related diseases, they are also expected to reduce stigmatization and improve social outcomes, such as better chances of finding friends or a romantic partner, or being promoted at work (Heitmann 2025). However, our findings suggest that such expectations may not be fully warranted. While weight loss injection users were evaluated more positively than overweight people doing nothing about their weight, they were nevertheless considered less warm and competent than those who had always been of normal weight or achieved it through exercise and diet. Our results are in line with recent research indicating that warmth deficits are driven primarily by perceived morality rather than friendliness (Koch et al. 2024): injection users were judged as fundamentally less honest and fair, reflecting a moral condemnation of their behavior rather than a mere social dislike.

The information regarding the usage of weight loss injections poses a risk to the user of being discriminated even when he or she gained normal weight. This comes with two concerning implications. First, injection users may try to hide their injection usage from others. This may be more or less successful, also given the often-discussed possibility of identifying injection users by their so-called *Ozempic face* (increased skin laxity and accelerated facial aging due to lipoatrophy and soft tissue depletion; Carboni et al. 2024), but it can hinder the adoption of the method by others as medications and treatments are more likely to be demanded when a descriptive norm is established. Second, as negative evaluations of injection users were also shared by study participants with obesity who could benefit from the method, they may decide against injections out of fear of (still) being discriminated. In summary, the negative evaluations observed in our research can hinder the adoption of weight loss injections. Fortunately, explaining the fairness and healthiness of the injections was found to be positively associated with user attributions and to reduce discrimination. Based on this finding, public health institutions could reduce resentment and promote uptake among target groups with information campaigns that do not only focus on the requirements and outcomes of weight loss injections but also explain the safety and fairness of the medication.

While multiple results could be replicated across studies, their application and generalization should be done with caution. The findings relate to a specific time (summer 2025) and context (United Kingdom). The evaluation of weight loss injection users may differ in other countries and change over time. Furthermore, the results were drawn from the evaluation of simplified vignettes; thus, perceptions and discriminatory behavior may differ in real-world interactions. It should also be noted that the vignette scenarios necessarily reflect common lay assumptions—such as the controllability of weight and the equation of normal weight with health—which are themselves contested in the medical literature (Tylka et al. 2014). The observed stereotyping may therefore partly reflect responses to these framing choices rather than to the weight loss method alone. Further research is necessary to better understand the implications of injection stigmatization for various relationships, including those with friends, partners, coworkers, and physicians.

While weight loss injections are promising interventions for weight management, our research indicates that they are often resented based on fairness and healthiness concerns. Addressing these concerns can help to reduce the discrimination against users and may foster the uptake among those living with obesity and weight-related diseases. Public health institutions should closely monitor attitudes toward weight loss medications and counter unfounded doubts about the method to safeguard the health and wellbeing of (potential) users.

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Ethics Statement

All studies were conducted according to the guidelines of the German Psychological Association. Ethical clearance was obtained from the University of Bamberg's IRB (#2025-09/65), and all participants

provided informed consent to use and share their data for scientific purposes without disclosing their identities.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are openly available in OSF at https://osf.io/2kmxc/.

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