

# Muttarak's Study Design Cannot Support the Link Between the Body-Positive Movement and Overweight or Obesity

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## Muttarak's Study Design Cannot Support the Link Between the Body-Positive Movement and Overweight or Obesity

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**TO THE EDITOR:** We raise a substantial concern with a recent publication in *Obesity* (1). Here, we focus on the implied causal link between the body-positive movement and overweight and/or obesity. For concerns about an additional problematic aspect of this article, which is that perceiving weight accurately will lead to improved health, see Stewart (2).

Muttarak (1) compared self-report data collected between 1997 and 2015 concerning people's BMI, whether they perceived themselves as "about the right weight," "too heavy," "too light," or "not sure," and whether they reported "currently trying to lose weight," "trying to gain weight," or "not trying to change weight." From 1997 to 2015, a larger proportion of adults classified as having overweight and/or obesity perceived themselves to be "about the right weight" rather than "too heavy." Those who underestimated their weight were less likely to report trying to lose weight.

Muttarak's (1) study design was correlational. She did not include a measure of the body-positive movement. For these two reasons, she cannot determine the body-positive movement's impact on weight misperception and weight-change efforts. Unfortunately,

Muttarak (1) erroneously made this causal claim. For example, she states that the availability of "plus-size" clothing likely "contributed to the normalization of stigma associated with overweight and obesity" (page 1125) and that the body-positive movement "can potentially undermine the recognition of being overweight and its health consequences" (page 1125) (1). Yet these statements extend beyond the conclusions allowable by her study design. To support her causal claims, she would have had to conduct experimental research measuring, for example, whether exposure to body-positive imagery prompts weight misperception and weight-change efforts compared with a control group that is not exposed to this imagery.

Also concerning is that Muttarak's (1) cited references are often either unrelated to her claims or have misinterpreted the referenced study's findings. To demonstrate, Muttarak (1) noted that "although purchasing clothes with smaller size labels helps promote a positive self-related mental imagery and self-esteem (3), vanity sizing can potentially lead to the misperception of weight status and consequently undermine action to reduce weight (4)." This statement is misleading as, in Aydinoglu and Krishna (3), participants did not actually purchase clothing; they were merely asked to imagine it, and its impact on weight misperception and weight-loss attempts were not assessed. Furthermore, Duncan and colleagues (4) merely investigated the correlations between weight underestimation, weight-loss attempts, and physical activity; exposure to plus- or vanity-sized clothing was not assessed.

Deleterious consequences result from misleading scientific reporting. Muttarak's institute published a press release, titled "Normalisation of 'plus-size' risks hidden danger of obesity" (5). Numerous media

published similar headlines. To reiterate, Muttarak (1) did not test this causal link, and her data cannot be used to support it. Most people do not investigate the scientific research behind the headlines. Therefore, it is our responsibility as scholars to accurately represent our work and its limitations and, as reviewers and editors, to not publish work that makes causal assumptions using correlational designs with variables that are not even measured. **O**

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