

Physiological and Psychological Effects of Being Weighed in Female Participants

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Background

- Stressful experiences such as constantly thinking about one's weight lead to harmful long-term physiological and psychological effects on the body.
- Weight stigmatization is associated with feelings of shame, guilt, self-criticism, and inferiority.
- Many studies have examined the presence of weight stigma in society at large, but fewer studies have sought to determine the physical and psychological outcomes of that stigma.
- Stressful experiences that might include being weighed at a doctor's office regularly, or constantly thinking about weight can lead to harmful long-term physiological effects on the body.
- Experiencing weight stigma is psychologically stressful as well.
- One study found that perceived weight stigma was significantly correlated with psychiatric morbidity and comorbidity, even after controlling for BMI.
- In the short-term, even momentary stressors could have an impact on factors such as blood pressure.
- This study tested whether female participants' attitudes about their bodies, anxiety, and blood pressure were affected by being weighed.
- It was hypothesized that being weighed would produce negative outcomes on blood pressure and body satisfaction, self-esteem, and anxiety.

Methods & Results

- The participants in this study were 55 female undergraduate students from the University of Dayton. Each participant was granted research credit for participating.
- The questionnaires used were the Rosenberg Self-Esteem Scale, the State-Trait Anxiety Inventory for adults, and a series of visual analog scales measuring body satisfaction.
- There were 25 participants in the control group, which had the three questionnaires administered first, blood pressure/pulse taken, and height and weight recorded last.
- The alternative group with 30 participants had their height, weight, and blood pressures/pulses taken, and were then given the three questionnaires.
- The results indicated that there were no significant differences on any measures between the two groups of participants.
- Body mass index was calculated for each participant.

Variable	F	Significance
Blood Pressure	0.011	0.917
Pulse	1.518	0.224
Esteem	0.036	0.851
Anxiety	0.075	0.785
Mean Attractiveness Score	1.235	0.272
Mean Desire to Change Body Score	2.379	0.130
Mean Fatness Score	1.093	0.301

	Mean Attractiveness Score	Mean Desire to Change Body Score	Mean Fatness Score	Blood Pressure
BMI	-0.339*	0.612**	-0.502**	0.518**

*. Correlation is significant at the 0.05 level (2-tailed)
**. Correlation is significant at the 0.01 level (2-tailed)

Discussion

- The hypothesis that participants who were weighed first (experimental group) would have more negative outcomes on blood pressure measures/pulse readings, anxiety and self-esteem measures, and body satisfaction measures than participants who were weighed last (control group) was not supported.
- These findings contradict previous research that suggests that there could be negative physiological and psychological effects that result from being weighed.
- As a result of the Pearson correlations, it was found that female participants with higher BMIs felt that they were less attractive and fatter than those with lower BMIs.
- Participants with higher BMIs also had a much higher desire to change their bodies.
- These findings support prior research that states that weight stigma can be very psychologically damaging.
- The results of this study hold implications for all workers in the healthcare field.
- Future research into whether or not "white coat syndrome" is truly valid, or whether it has some sort of limit, is essential.
- Future research must continue to understand the physiological and psychological effects that being weighed might have on people, contributing to the larger issue in our society of weight stigma.