

Population Data Show No Evidence For A Thinness Norm On Body Weight

Social Body Weight Norms: A Population-Based Profile in Germany, the Netherlands and the United States
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Introduction

- A widely held belief is that social norms regarding body weight in Western societies are thin and strict
- This belief is supported by empirical evidence drawn from mass media and convenience samples that may not represent common views in the population.
- This study presents the first population-based profile of social body weight norms. Data come from Germany, the Netherlands, and the United States

Methods

Data

- GESIS panel (Germany, N = 4,285, ages 24 to 74), LISS (the Netherlands, N = 2,040, ages 18 to 84), UAS (the US, N = 1,390, ages 18 to 84).
- Data collected in 2019 within the Open Probability-Based Panel Alliance (OPPA).

Measures of body weight norms

- Norms were measured via ratings of female and male figures on a validated figure rating scale.

Statistical models

- Linear probability models estimated the probability of rating each of the eleven figures on each of the outcome variables (see Table 1), controlling for age categories, device type, survey mode (in Germany), and order of the figures on the FRS.

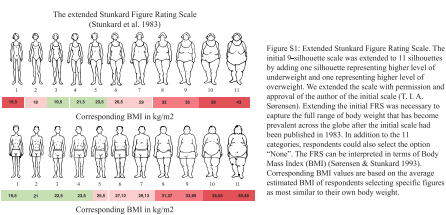


Figure S1: Extended Stunkard Figure Rating Scale. The initial silhouette scale was extended to 11 silhouettes by adding one silhouette representing higher level of underweight and one representing higher level of overweight. We extended the scale with permission and approval of the author of the initial scale (T. I. A. Sørensen). Extending the initial FRS was necessary to capture the full range of body weight that has become prevalent across the globe after the initial scale had been published in 1983. In addition to the 11 categories, respondents could also select the option "None". The FRS can be interpreted in terms of Body Mass Index (BMI) (Sørensen & Stunkard 1993). Corresponding BMI values are based on the average estimated BMI of respondents selecting specific figures as most similar to their own body weight.

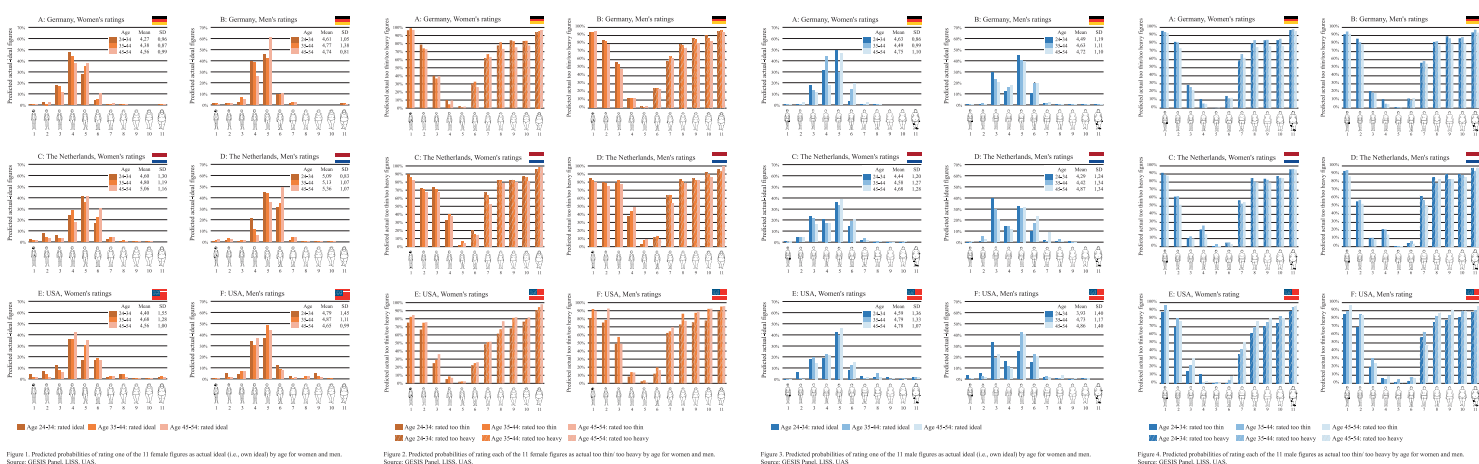
Table 1. Survey questions used to measure social BWN

	Actual	Perceived
Ideal	"Which [male/female] figure is most similar to what you consider ideal body weight?"	"Which [male/female] figure is most similar to what most people in [COUNTRY] consider ideal body weight?"
Accepted	"Which of these [men/women] do you consider being too [thin/heavy]?" Select all figures that apply."	"Which of these [men/women] do most people in [COUNTRY] consider being too [thin/heavy]?" Select all figures that apply."

Note: Ratings of ideal figures were operationalized continuously (range 1 to 11) to assess the average ideal figures and categorically (11 separate categories), to assess the probability for each of the figures to be rated as ideal. Ratings of too thin and too heavy figures were operationalized categorically (value 1 if a figure was rated as too thin or too heavy, 0 otherwise). This operationalization allowed estimating the probabilities of rating each figure as too thin or too heavy.

* Replaced by the country of the survey.

Results



Social norms for ideal weight

- Norms for ideal weight are not thin:
- Female figures commonly rated ideal corresponded to the BMI range from 21.5 to 27.5.
- Male figures commonly rated ideal corresponded to the BMI range from 22.5 to 27.5.

Social norms for accepted weight

- Norms for accepted weight for females are stricter:
- Female figures commonly rated neither too thin nor too heavy corresponded to the BMI range from 21.5 to 24.
- Norms for accepted weight for males are less strict:
- Male figures commonly rated neither too thin nor too heavy corresponded to the BMI range from 22.5 to 27.

Actual vs. perceived norms

- Perceived norms were thinner than actual norms. This contrast was concentrated in questions about the ideal female body weight.

Population differences

- Heavier norms were found among older people and men, and more often in the Netherlands than in Germany and the United States.
- The contrast between perceived and actual norms was most pronounced in the U.S.

Conclusions

- The notion of a very thin ideal is not supported by population-based data, as figures representing low BMI levels were not selected as ideal and were commonly rated as too thin.
- However, the notion of a strict norm on body weight is supported, as only a narrow range of figures was rated as neither too thin nor too heavy.

References

Sørensen, T. I. A., & Stunkard, A. J. (1993). Does obesity run in families because of genes? An adoption study using silhouettes as a measure of obesity. *Acta Psychiatrica Scandinavica*, 87(S370), 67-72.

Stunkard, A. J., Sørensen, T. I. A., & Schulsinger, F. (1983). Use of the Danish adoption register for the study of obesity and thinness. In: *Genetics of Neurological and Psychiatric Disorders*. (Eds.) Kety, S. S., Rowland, L. P., Sidman, R. L., Mathysse, S. W. New York, Raven Press. Pp. 115-120.