

# Bodyweight, Weight Perceptions and Health-Related Quality of Life at Age 29

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## Background

- Measures of Health Related Quality of Life (HRQoL) have become increasingly important in efforts to assess the health of individuals and populations and are a key component of Healthy People 2020.
- Some studies find a connection between obesity and HRQoL, others do not suggesting that there may be significant modifiers of this relationship.
- As average BMI in the US has increased, fewer overweight men and women perceive themselves as being overweight (Burke, Heiland & Nadler 2010).
- Adults who misperceive their weight as healthy may be doing so to avoid the stigma often associated with excess weight.
- An accurate perception of overweight status may combine with an identification of fat-stigmatizing beliefs leading to lower ratings of quality of life; whereas a more optimistic perception of weight status may have higher ratings.

## Current Study

- We examine the relationship between bodyweight and physical- and mental- HRQoL among a national sample of young adults aged 29. Weight perception is considered as a potential moderator of the relationship between bodyweight and HRQoL.

## Data and Sample

- The NLSY97 is a nationally representative, longitudinal survey of youth born in 1980-84 who were living in the US in 1997. Pregnant women are excluded. N= 6,052.

## Key Measures at Age 29

- HRQoL.** Dependent variables are the *Physical Component Summary Scale Score* and the *Mental Health Component Summary Scale Score*.
- Bodyweight.** BMI at age 29. BMI cutoffs define underweight (BMI  $\leq 18.5$ ), healthy weight (18.5 > BMI < 25) and overweight (BMI  $\geq 25$ ).
- Perceived Weight.** We collapse perceived weight into three categories *Underweight*, *About Right* and *Overweight*.

## Results

A sizeable proportion of the sample did not accurately perceive their weight status

Table 1: Weighted Proportion of Young Adults aged 29 with (In)congruent Weight Perceptions

BODYWEIGHT	WEIGHT PERCEPTIONS			Total	Row %
	Underweight	About Right	Overweight		
<b>A. Men (N=3,024)</b>					
Underweight	0.575 (20)	0.315 (10)	0.110 (4)	1.000	0.011 (34)
Healthy	0.246 (235)	0.677 (622)	0.077 (67)	1.000	0.319 (924)
Overweight	0.027 (68)	0.354 (772)	0.618 (1,226)	1.000	0.669 (2,066)
Column %	0.103 (323)	0.457 (1,404)	0.440 (1,297)	1.000	
<b>B. Women (N=2,858)</b>					
Underweight	0.268 (35)	0.493 (32)	0.239 (6)	1.000	0.028 (73)
Healthy	0.036 (77)	0.774 (714)	0.190 (295)	1.000	0.415 (1,086)
Overweight	0.004 (47)	0.199 (236)	0.797 (1,416)	1.000	0.557 (1,699)
Column %	0.048 (159)	0.351 (982)	0.601 (1,717)	1.000	

Source: National Longitudinal Survey of Youth 1997 Cohort

## Men and women's physical and mental HRQoL depends on the intersection of bodyweight and their perception of weight

Figure 1: Predicted Physical SF-12 Score by Bodyweight and Perceived Weight among Men Aged 29

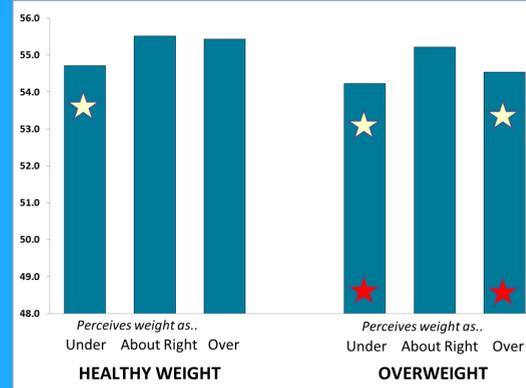
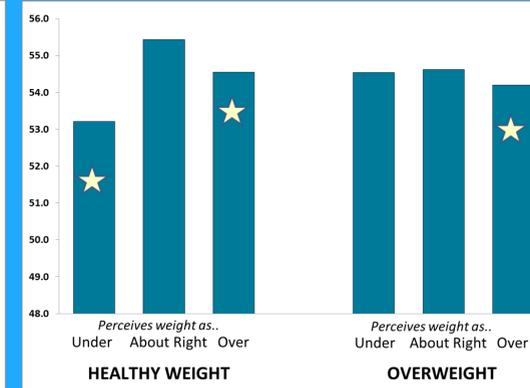


Figure 2: Predicted Physical SF-12 Score by Bodyweight and Perceived Weight among Women Aged 29



### Key for Figures



= Significantly different from those at a Healthy weight who perceive weight as "About Right"



= Significantly different from those who are Overweight but perceive weight as "About Right"

Notes: Predicted values based on multivariate linear regression models including interactions between actual and perceived weight. Respondents with reported bodyweight falling into underweight are excluded from these analyses. All analyses are weighted by custom population weights supplied by the NLSY. Models control for race/ethnicity, work limitations (kind and amount), educational attainment, and health behaviors.

Figure 3: Predicted Mental SF-12 Score by Bodyweight and Perceived Weight among Men Aged 29

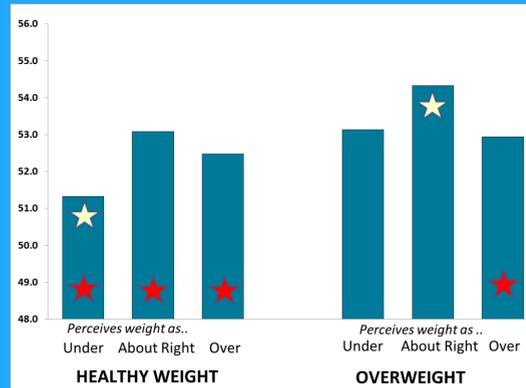
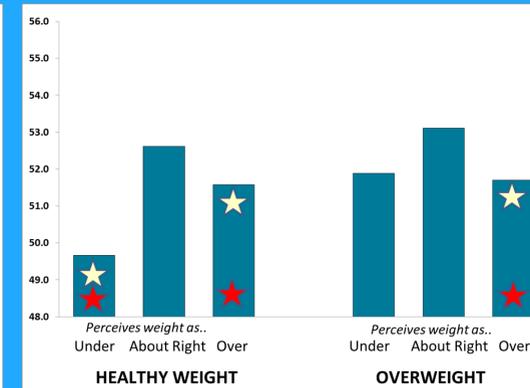


Figure 4: Predicted Mental SF-12 Score by Bodyweight and Perceived Weight among Women Aged 29



## Summary

- Men who accurately perceive their overweight status have lower ratings of mental and physical HRQoL than overweight men who perceive their weight as *About Right*.
- Healthy weight and overweight men who perceive themselves as *Underweight* report lower ratings of physical HRQoL.
- Overweight men who perceive their weight as *About Right* have higher ratings of mental HRQoL than men at a healthy weight.
- Women who accurately perceive their overweight status have lower ratings of mental HRQoL than overweight women who perceive their weight as *About Right*.
- Healthy weight women who perceive themselves as either *Under/Overweight* report lower mental HRQoL than overweight women who perceive their weight as *About Right*.

## Conclusions

- In the context of an increasingly overweight society, it is important to understand how weight perceptions may influence the degree to which young adults with excess weight may experience diminished HRQoL.
- Increasing awareness of healthy weight levels, may have an impact of weight-related behavior change.

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