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The Association Between Weight Misperception, Health Status And Health Related Behavior Among The Older Adults: Evidence From The Singapore Life Panel

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Background

Obesity is widely known as a risk factor for many chronic diseases among older adults. Biased perceptions of one's own health, including one's weight status, could lead to negative impacts on health behaviors, health and the healthcare system. This cross-sectional study examined: **1) the prevalence of weight misperception among older adults; and 2) the effect of weight misperception on health status and health-related behaviors** from the Singapore Life Panel.

Methods

5,611 community-based participants aged between 50 to 64 years were included. Weight misperception was defined as the discrepancy between self-perceived body weight and self-reported body mass index (BMI), yielding three categories: underestimate, concordant and overestimate. Probability linear regression were used to measure the association between weight misperception and binary outcomes.

Outcome measures include:

1) self-reported health status (SRH)
2) health-related behaviours − smoking status, alcohol consumption, physical activity and healthcare utilization

Results & Conclusions

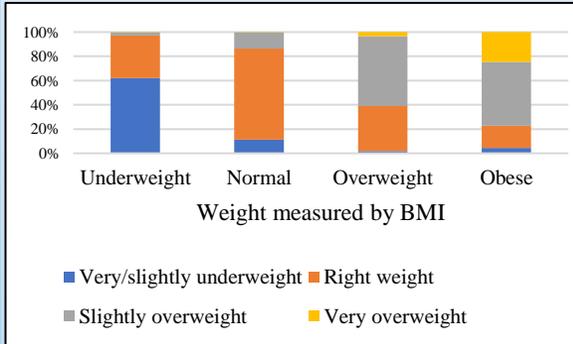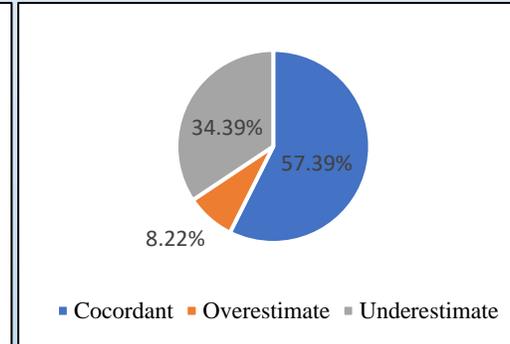Figure 1. The proportion of self-perceived weight by BMI

Weight measured by BMI

- Very/slightly underweight
- Right weight
- Slightly overweight
- Very overweight

Figure 2. Distribution of weight misperception

34.39% 57.39% 8.22%

- Cocordant
- Overestimate
- Underestimate

- The normal BMI group has the highest proportion of concordant group (79.9%), followed by the underweight, overweight and obese group. (Fig. 1)
- 42.61% of the respondents had misperception about their body weight compared to BMI, among whom 8.22% overestimated, and 34.39% underestimate their weight. (Fig. 2)

Table 1. Association between weight misperception and outcomes

	β (95% CI)				
	SRH	Smoke	AC	PA	HU
Overestimate	-0.03 (-0.07, 0.02)	0.01 (-0.01, 0.04)	0 (-0.04, 0.04)	-0.02 (-0.01, 0.02)	**-0.07 (-0.12, -0.03) *****
Underestimate	**0.04 (0.01, 0.07)*****	0 (-0.02, 0.02)	-0.01 (-0.03, 0.02)	-0.01 (-0.04, 0.01)	-0.02 (-0.05, 0.003)

Concordant is the reference group; AC=alcohol consumption, PA=physical activity; HU=healthcare utilization;
Regression model adjusted for age, gender, social economic status, ethnicity, educational level, marital status, number of chronic disease;
*** for statistical significance at 0.05.

- Underestimated weight was associated with better self-rated health.
- Both underestimated (marginally significant) and overestimated weight were associated with less doctor visit.

- Existing mismatch between perceived weight and BMI among the older adults.
- This study highlights the needs to improve the awareness of healthy weight and increase access to needed health care among the weight misperceived group to reduce potential risk for further developing chronic diseases among the community-based elderly in Singapore.