

IMPACT OF ABDOMINAL OBESITY ON HEALTH-RELATED QUALITY OF LIFE

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BACKGROUND

- It has been consistently shown that obesity may impact important aspects of health-related quality of life (HRQOL). Is abdominal obesity (AO) associated with impaired HRQOL?

OBJECTIVE

- To compare HRQOL using the Impact of Weight on Quality of Life-Lite (IWQOL-Lite) questionnaire in subjects with or without AO (defined as waist circumference [WC] >102/88 cm for men/women, respectively).

METHODS

Study design

- Prospective Obesity Cohort of Economic Evaluation and Determinants (PROCEED) is an ongoing international, Internet-based, longitudinal, observational cohort of overweight/obese subjects (body mass index [BMI] ≥ 25 kg/m²), intending to lose weight.
- Subjects were recruited via the Internet.
- Inclusion criteria:
 - Aged ≥ 35 and ≤ 75 years
 - Able to give informed consent
 - BMI ≥ 25 kg/m²
 - Willing to take action to lose weight in the next year.
- Exclusion criteria:
 - Weight >180 kg/397 pounds (maximal capacity of scale)
 - Knowledge of pregnancy at baseline.

IWQOL-Lite

- The IWQOL-Lite is a validated 31-item self-reported questionnaire, specifically designed for HRQOL assessment in obesity. It comprises five domains (Physical Function, Self-esteem, Sexual Life, Public Distress, Work) and a total score.
- The IWQOL-Lite questionnaire was completed on the Internet by subjects at baseline.

Statistical analysis

- Using two-sample *t*-tests, baseline IWQOL-Lite scores for US subjects were compared: between AO groups overall; between genders within the subgroup with AO; and between AO groups within the overweight subgroup both overall and within gender.

RESULTS

- A total of 967 overweight/obese subjects were recruited in the USA.

Figure 1. Recruitment.

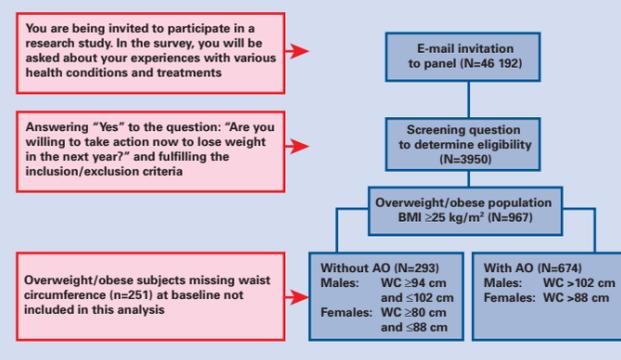
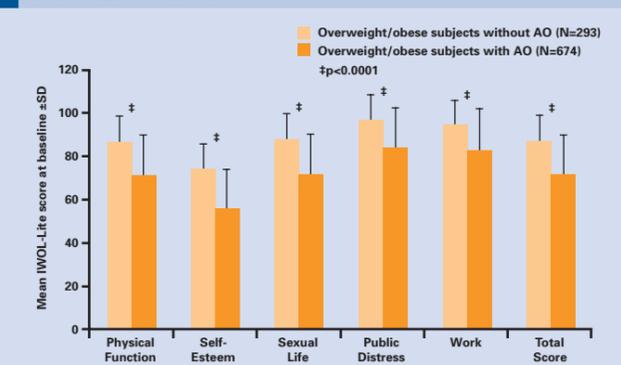


Table 1. Baseline characteristics

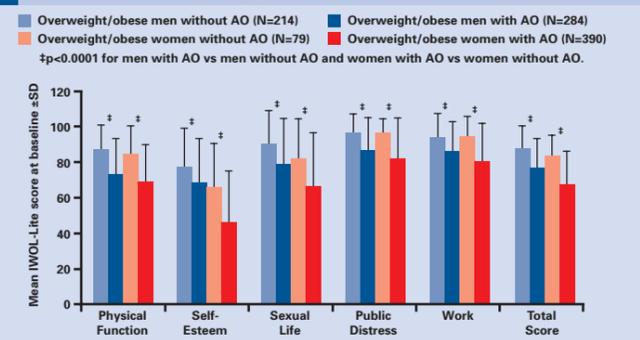
Characteristic	Overweight/obese	
	With AO (N=674)	Without AO (N=293)
Male (%)	42	73
Mean age \pm SD (years)	50 \pm 9	50 \pm 10
Caucasian (%)	91	88
Mean BMI \pm SD (kg/m ²)	33.6 \pm 6.0	27.8 \pm 2.5
Mean WC \pm SD (cm)		
Males	118 \pm 12	95 \pm 5
Females	106 \pm 13	81 \pm 5

Figure 2. IWQOL-Lite mean scores for overweight/obese subjects with AO/without AO.



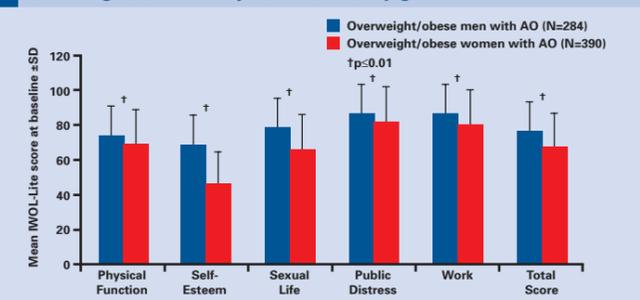
- Subjects with AO had statistically significantly lower scores for all domains and the total score compared with subjects without AO ($p < 0.0001$).

Figure 3. IWQOL-Lite mean scores for overweight/obese subjects with AO/without AO by gender.



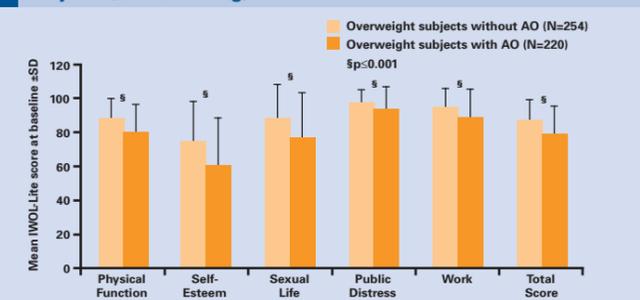
- Stratified by gender, subjects with AO had statistically significantly lower scores for all domains and the total score compared with subjects without AO ($p < 0.0001$).

Figure 4. IWQOL-Lite mean scores at baseline for overweight/obese subjects with AO by gender.



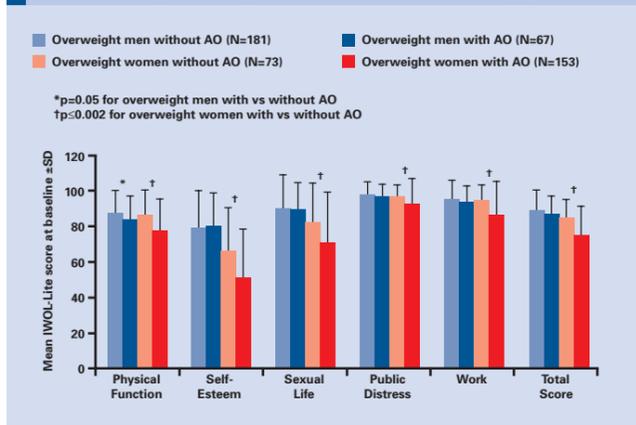
- Among subjects with AO, females had statistically significantly lower scores for all domains and the total score compared with males ($p < 0.01$).

Figure 5. IWQOL-Lite mean scores at baseline for overweight subjects (BMI 25–30 kg/m²) with AO/without AO.



- Among overweight subjects (BMI 25–30 kg/m²), subjects with AO (N=220) reported a significantly ($p < 0.001$) lower total score compared with overweight subjects without AO (N=254).

Figure 6. IWQOL-Lite mean scores at baseline for overweight (BMI 25–30 kg/m²) subjects with AO/without AO by gender.



- Among overweight subjects (BMI 25–30 kg/m²), female subjects with AO (N=153) reported a significantly ($p < 0.002$) lower total score compared with female subjects without AO (N=73). Among overweight male subjects (N=67 with AO, N=181 without AO), the only significant difference observed was in the Physical Function score ($p = 0.05$).

CONCLUSIONS

- AO was associated with impaired HRQOL (assessed using the IWQOL-Lite) in both men and women, with decreases for women being more marked.
- Subjects with AO in the BMI class 25–30 kg/m² have a statistically significant impairment of their HRQOL when assessed using the IWQOL-Lite.
- The results of this analysis performed on data obtained from this Internet-based cohort are consistent with those reported in the literature for non-Internet-based samples.
- The PROCEED cohort is a unique approach, which confirms that in a population of overweight/obese subjects, AO status increases the humanistic burden on subjects.

Acknowledgment

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