

# ASSOCIATION BETWEEN BODY WEIGHT SATISFACTION AND HEALTH-RELATED QUALITY OF LIFE DIFFERS ACCORDING TO DIETING PRACTICES IN ADOLESCENTS

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## INTRODUCTION

Adolescence is a challenging phase during which young people are exposed to major physical and psychosocial changes. Such a process may impact adolescents' well-being [1]. Previous studies showed in particular that young people who reported a positive body image were more likely to have a high level of HRQoL than those who reported a negative body image [2]. Moreover, dieting to lose weight has been associated with body image dissatisfaction.

Adolescents who perceived themselves as too fat more frequently reported slimming attempts and dieting [3]. While dieting has been associated with lower levels of psychological well-being [4], published studies also showed that HRQoL improved in obese and overweight adolescents taking part to a treatment program [5]. On the basis of these findings, we assumed that the association between body weight satisfaction and HRQoL could vary according to dieting or not.

## OBJECTIVE

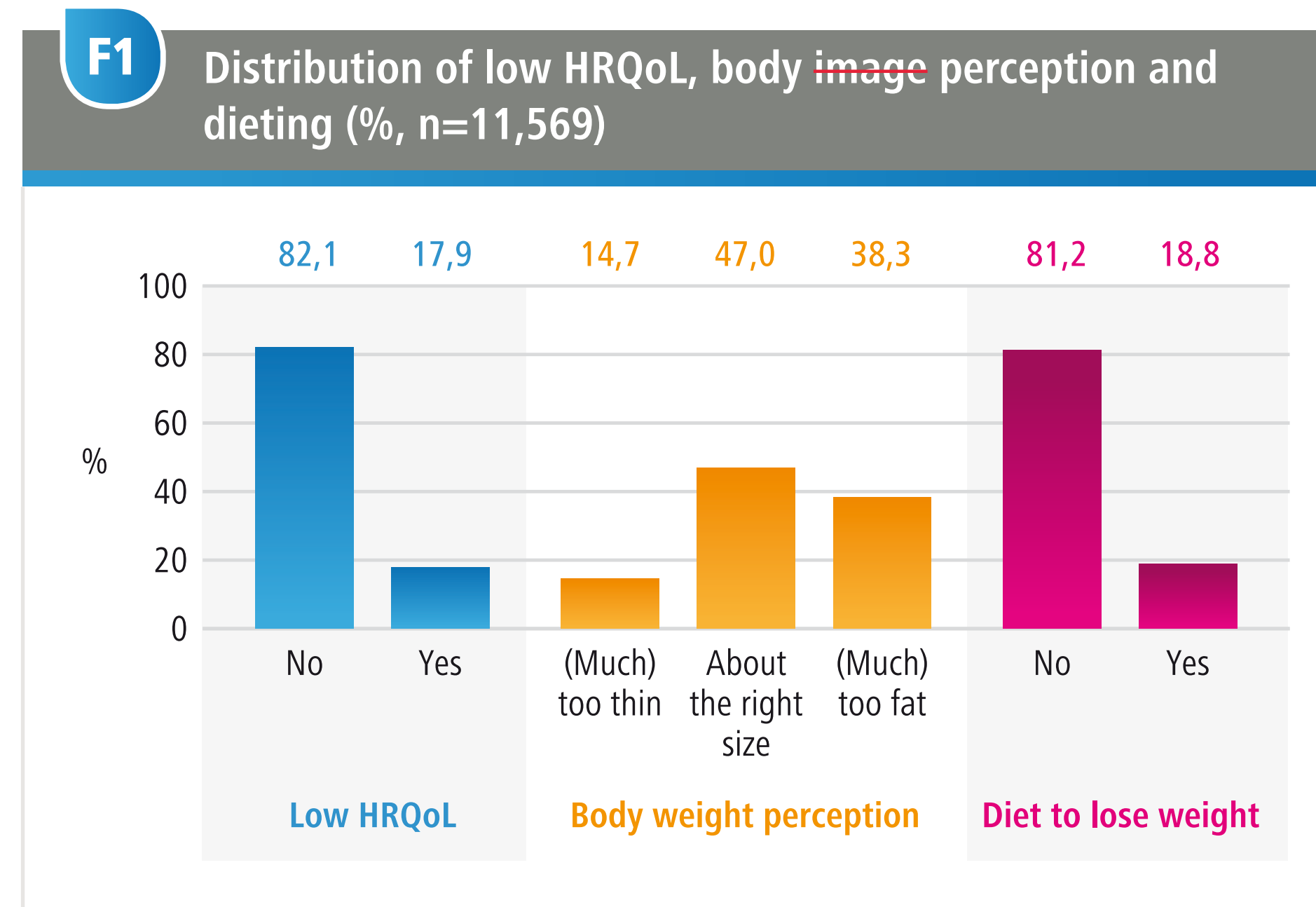
This study aimed to explore whether dieting may modify the association between body weight satisfaction and HRQoL in 10-20 year-olds.

## METHODS

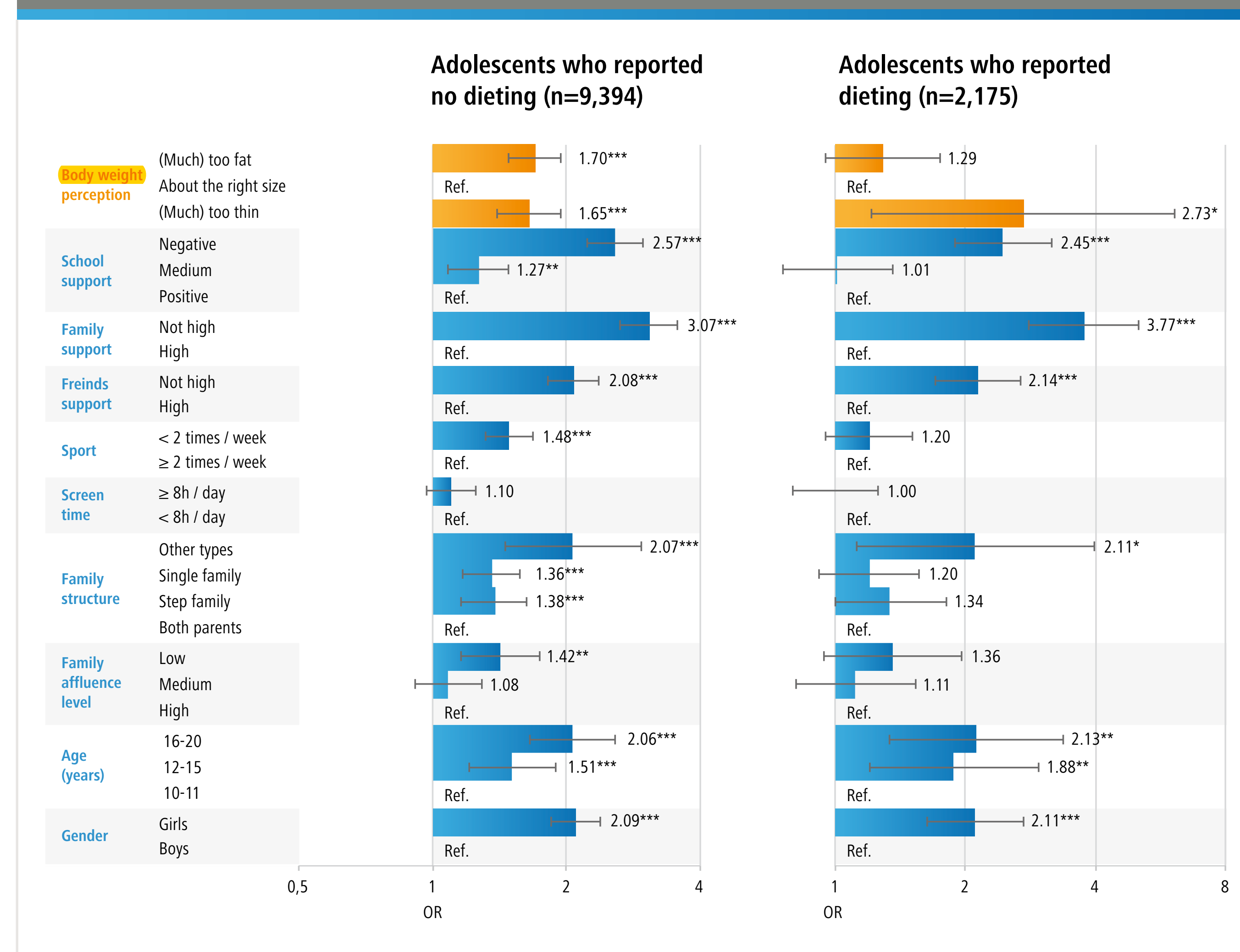
- ▶ **"Health Behaviour in School-aged Children"** (HBSC) cross-sectional survey conducted every four years.
- ▶ **Stratified random sample:** 13,954 French-speaking Belgian adolescents aged 10-20 years old. Adolescents with missing values for outcome or covariates were excluded from the analysis (n=2,385).
- ▶ **Outcome variable:** HRQoL was estimated using the self-report version of the KIDSCREEN-10 tool [6]. It includes 10 items covering physical, psychological and social dimensions, with a five-point response scale for each item. Low HRQoL corresponds to the percentile 15 of T-values distribution in the European reference adolescent population (T-value <38).
- ▶ **Main independent variables:**
  - Body weight satisfaction was addressed using self-perceived body weight as "much/a bit too thin", "about the right size" and "much/a bit too fat".
  - Dieting was measured by asking the question "At present are you on a diet or doing something else to lose weight?" with four response categories: "no, my weight is fine", "no, but I should lose some weight", "no, because I need to put on weight" and "Yes", that were dichotomized "No" vs "Yes".
- ▶ **Co-variables:** screen time, sport, family, friend and school support, and potential sociodemographic confounders (sex, age, socioeconomic status measured through the "Family Affluence Scale" (FAS) [7], family structure).
- ▶ **Statistics:** multivariable logistic regression modelling, separately for adolescents who were dieting and for those who reported no dieting.

## RESULTS

Nearly one in five adolescents reported a low HRQoL; half of young people perceived his/her body was about the right size; and eight out of ten reported no dieting (Fig. 1).



F2 Multivariate logistic regression analyzing the relationship between body image perception and a low HRQoL in adolescents who reported no dieting and in those who reported dieting



- ▶ Body weight satisfaction was associated with low HRQoL (OR: 1.74; CI 95%=1.52-1.99 among adolescents who perceived their body as too thin and OR: 2.36; CI 95%=2.14-2.61 among those who perceived their body as too fat) and the interaction between body weight satisfaction and dieting was statistically significant (p=0.04).
- ▶ **Among adolescents who reported no dieting,** those who perceived themselves as "too thin" or "too fat" had higher odds of low HRQoL compared to those who perceived their body was about the right size.
- ▶ **Among those who reported they were dieting,** self-perception of being "too fat" was no longer associated with low HRQoL, while those who perceived themselves as "too thin" remained more likely to report low HRQoL compared to those who perceived their body was about the right size.
- ▶ **In both models:** Odds of low HRQoL were higher among girls and increased with age. Reporting low levels of friends and family support, and poor school support were associated with low HRQoL.
- ▶ **Among adolescents who reported no dieting** Odds of low HRQoL were also higher among adolescents living in a family with poor material wealth (vs. high), not living with both parents, and practicing sport less than twice a week. Such characteristics were not associated with HRQoL in adolescents who reported dieting.

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## DISCUSSION AND IMPLICATIONS

- ▶ Our findings suggest that dieting could have a positive effect on the HRQoL of adolescents perceiving their body as too fat.
- ▶ However, due to the cross-sectional design of the survey, it is also possible that adolescents who do not have a low HRQoL have more resources to go on dieting.
- ▶ Health professionals in contact with adolescents should pay more attention to such complex interactions between body weight satisfaction, dieting and health-related quality of life.

## LIMITATIONS

- ▶ Data collected using self-administered questionnaires are potentially subject to social desirability bias.
- ▶ No information was available about the young people who did not participate to the survey (absence or refusal).