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As previously stated, obesity is usually associated with health disturbances. In the present research type 2 *Diabetes*, hypertension, cholesterol, cardio-vascular or respiratory diseases were considered obesity-related diseases (Fruh, 2017; Sawadogo et al., 2021; Kivimäki et al., 2022). A high percentage of women and men in both age groups suffering from one (or more) of these diseases were obese (between more than 45% and close to 70%); also, in this category, BMIs were higher than those of individuals who did not report any disease, although many of them were also obese (between 22%-35% according to sex and age). In this latter case, we could appeal to what in the last years has come to be known as the “healthy obese” (Smith, 2001), although this subtype of obesity and its health consequences are currently under discussion (Martínez-Larrad et al., 2014; Phillips, 2017).

As observed in other studies (de Mutsert et al., 2014; Webber et al., 2014; Kivimäki et al., 2022), our results also showed a positive and significant association of obesity-related diseases with obesity. The greatest association was with central fat distribution (WHR) and although weaker (but significant) association could also be found for both overall obesity (BMI) and abdominal obesity (WC), no association were found when obesity was defined by FM%. Similar results have been observed in other studies, such as that of Canoy et al. (2007), which found that WHR, BMI and WC were directly related to coronary heart disease development, but WHR was more strongly associated than WC or BMI. This fact could reveal differences in metabolic characteristics between central and peripheral body fat. In fact, increased abdominal obesity could indicate increased visceral fat, which has been demonstrated to be associated with insulin resistance and a worse lipid profile than peripheral fat (Carr et al., 2004).

The 1948 constitution of the World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (see Larsen, 2022). Thus, a self-assessment of health should include self-perceived health, and not only physician-diagnosed illnesses (Okosun et al., 2001). In the present study the perceived physical health condition was asked to the participants and the results showed that among those who perceived a bad health, a large percentage were obese, followed by those who perceived their health as regular. Their BMIs were also much higher than those of the other two categories, in both sexes and age groups. In fact, it is not only that obesity and poor health tend to go together, but many obese people perceive their state of health as poor or fair (regardless of their actual physical condition), and may experience negative feelings about their self body image, accompanied by a certain degree of physical, mental and social suffering (Palmeira et al., 2016).

A positive and significant associations between this item and all obesity indicators were observed, especially the excess of fat (FM%), obesity (BMI) and abdominal obesity (WC), where obese individuals had a 10, 6 and 1-5 fold greater odds, respectively, of reporting reduced health; the OR obtained for fat distribution (2.04) were smaller than the ones obtained the other obesity indicators but also significant. This results support the idea that obesity is a predictor of reduced self-rated health (Prosper, Moczulski and Qureshi, 2009).

Obesity has also been associated with mental health, particularly anxiety and depression (Pereira-Miranda et al., 2017; Lavalley et al., 2021), and obese people are often stigmatized in our society (Fruh et al., 2016; Latner and Stefano, 2016; Fulton and Srinivasan, accessed November 2022); this may have contributed to poor health perception in many of the individuals with obesity, as observed in this research. As stated by (Robinson et al., 2020) “the psychological distress of self-identifying as obese is likely to have a negative impact on behavioural patterns that promote, rather than protect, poor health”.

This research had some limitations and strengths. Firstly, the variables used to describe “personal background” were qualitative and self-reported which could influence some of the obtained









