

INPLASY PROTOCOL

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Corresponding author:
Yang Lichao

ylc6000@163.com

Author Affiliation:
Hunan Women and Children's
Hospital

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None declared.

A Meta-analysis of the Association between Obesity and Early Retirement

Yang, LC¹; Chen, XL²; Feng, X³.

Review question / Objective: Can obesity lead to involuntary or premature retirement?

Condition being studied: Obesity refers to a certain degree of obvious overweight and excessive fat layer. It is a state caused by excessive accumulation of body fat, especially triglycerides. It is an increasingly popular metabolic disease worldwide. According to the World Health Organization standard, overweight and obesity are defined for adults as overweight when a body mass index ≥ 25 ; obesity when a body mass index ≥ 30 .

Information sources: Information for this study was obtained from electronic databases, conference abstracts, newspapers or letters to the editor in the research literature will also be excluded.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 May 2022 and was last updated on 18 May 2022 (registration number INPLASY202250115).

INTRODUCTION

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popular metabolic disease worldwide. According to the World Health Organization standard, overweight and obesity are defined for adults as overweight when a body mass index ≥ 25 ; obesity when a body mass index ≥ 30 .

METHODS

Search strategy: PubMed, Embase, Web of Science, Cochrane Library.

Participant or population: Obese people (body mass index ≥ 30). The study subjects were obese people, the control measure was normal-weight people, and the outcome measure was the presence or absence of premature retirement behavior. The type of research used in this study is an observational study.

Intervention: None.

Comparator: People with normal body mass index.

Study designs to be included: Observational study (cohort studies, case-control studies, cross-sectional studies).

Eligibility criteria: Inclusion criteria: According to the standard definition of the World Health Organization (WTO), obesity was defined using the Body Mass Index (BMI) as a universal index. The guidelines recommend that all obese patients should calculate BMI and measure waist circumference when necessary. WHO defines BMI ≥ 25 as overweight, including pre-obesity ($25 \leq \text{BMI} < 30$) and obesity (BMI ≥ 30). The premature retirement population in this study refers to the behavior of employees who retire before reaching the age or service period stipulated by the state or the company. The exposure group in this study was an obese population (BMI ≥ 30), and the control group was a non-obese population. Exclusion criteria: This observational study only focuses on the samples of early retirement related to the exposure measure "obesity", others will be included in the exclusion scope. In the literature search, conference abstracts, newspapers or letters to the editor in the research literature will also be excluded.

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Main outcome(s): Risk of all-cause premature retirement in obese patient.

Quality assessment / Risk of bias analysis: The Newcastle Ottawa Scale (NOS), designed for nonrandomized studies, will be used to assess the quality of the included studies. The NOS considers a maximum of 9 points to each cohort study.

Strategy of data synthesis: Stata.

Subgroup analysis: We will undertake statistical analysis by using Stata 16 software. We will extract the odds ratio (OR) or risk ratio (HR) and 95% confidence intervals (CI) from each study to assess the association between obesity and risk of fractures. The magnitude of statistical heterogeneity among the included articles will be checked="checked" value="1" by χ^2 test and I^2 statistics and values of 75, 50, and 25% were considered as high, medium, and low quality respectively. Subgroup and sensitivity analyses will be conducted to assess the possible sources of the heterogeneity. The symmetry of the Funnel plot, Egger's tests will be performed to evaluate publication bias. Differences with a P 0.05 indicate statistical significance.

Sensitivity analysis: The Newcastle Ottawa Scale (NOS), designed for nonrandomized studies, will be used to assess the quality of the included studies. The NOS considers a maximum of 9 points to each cohort study.

Language: None restriction.

Country(ies) involved: China.

Keywords: obesity; retire.

Contributions of each author:

Author 1 - Yang Lichao.

Email: ylc6000@163.com

Author 2 - Chen Xiaolan.

Email: 469082553@qq.com

Author 3 - Feng Xu.