

# Prevalence of Negative Emotional Eating in Middle-aged Population: A Systematic Review and Meta-analysis

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## INTRODUCTION

**Background:** Negative emotional eating (EE), an overeating behavior triggered by emotions such as stress, is a noted risk factor for obesity and many non-communicable diseases. As studies have extensively focused on younger-aged or student populations, the pervasiveness of negative EE patterns in other age groups is comparatively under-examined.

**Objective:** This study aimed to provide prevalence estimates of this overeating behavior in middle-aged adults.

## METHODS

**Data sources:** The online searches included Medline, Embase, PsycINFO, Web of Science Core Collection, and Google Scholar.

**Inclusion criteria:** English language studies reporting the prevalence of negative EE behaviors in middle-aged adults from 2000 onwards.

### Statistics analysis:

- Pooled prevalence estimate and its 95% confidence intervals were estimated by random effects models.
- Subgroup analysis were performed after stratifying by age, gender, income classification and instruments and examined for heterogeneity using the I-squared statistics.

## RESULTS

**Search results:** From 1390 identified records, a total of 38 articles involving 13662 subjects were included.

**Study characteristics:** The studies were published between 2015 and 2022, across 21 countries.

### Pooled prevalence estimate:

- The pooled prevalence estimate was 16% (95% CI: 0.14-0.19) for negative EE among middle-aged populations.

### Subgroup analysis:

- The highest prevalence was 60% (CI: 0.35-0.81,  $I^2$ : -- %) among females aged 35-39 measured by EES and the lowest prevalence was 6% (CI: 0.03-0.15,  $I^2$ : 51.4%) among males aged 60-64 measured by TFEQ-EE.
- In the age group 35-39, 11% (CI: 0.07-0.17,  $I^2$ : 0.0%) of the population were emotional eaters in middle-income countries while 18% (CI: 0.13-0.23,  $I^2$ : 64.9%) were emotional eaters in high-income countries measured by DEBQ-EE.

Figure 1. Prisma Diagram

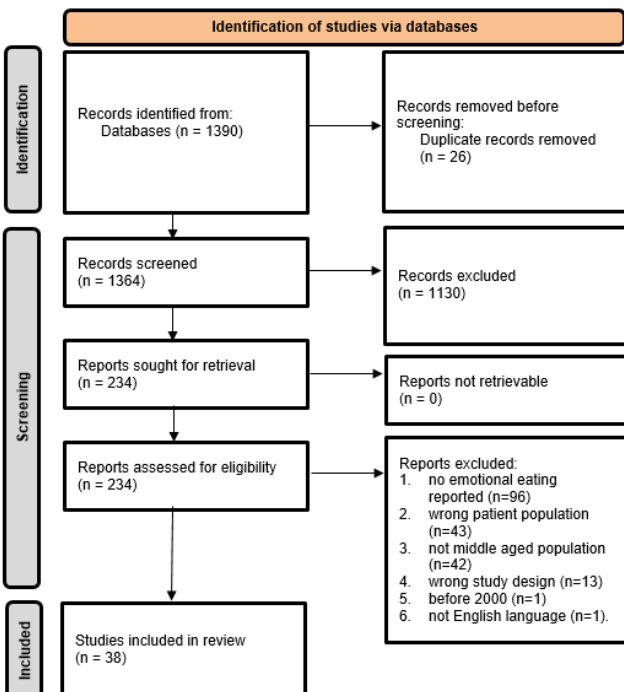
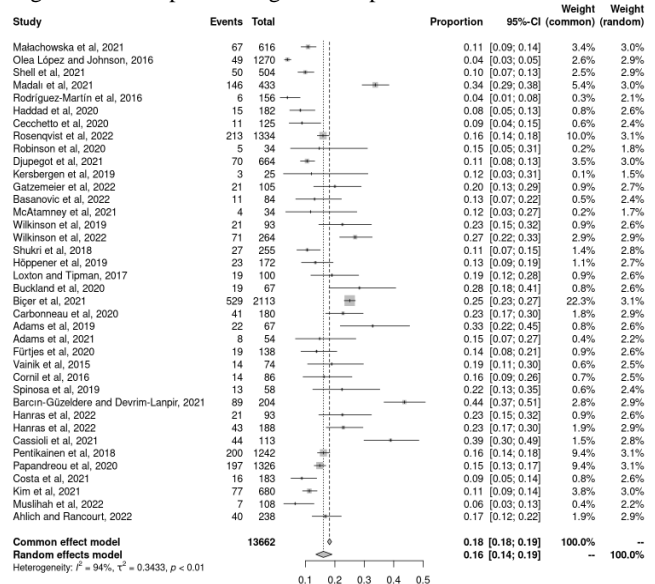


Figure 2. Forest plot for negative EE prevalence



## CONCLUSION

- The high global prevalence of negative EE among middle-aged populations indicates the necessity of health promotion programs to reduce negative EE behaviors in this age group.
- Behavioral modification to reduce unhealthy overeating behaviors should be implemented before the onset of advanced non-communicable diseases, particularly in countries with a high burden of obesity-related diseases.