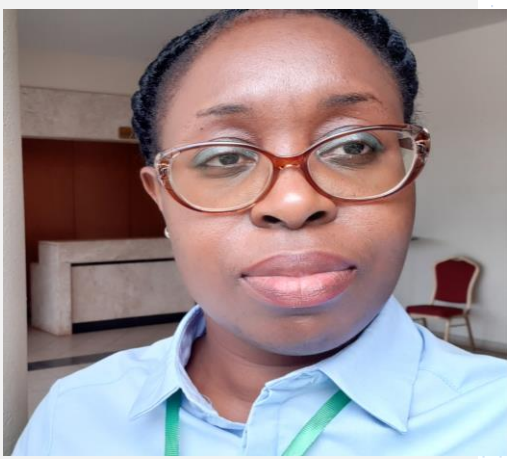




Association between Intestinal Parasite Infections and Proxies for Body Composition: A Scoping Review

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BACKGROUND & AIM

Role of intestinal parasite infection (IPIs) in changes of body composition should be addressed

It has long been recognized that IPIs and undernutrition are closely linked. Little is known about the role of IPIs, or parasite clearance, in these processes.

The aim of this scoping review was to summarize published evidence on the association between IPIs and body composition.

METHODS

Scoping review procedure

- ❖ We collected data on PRISMA guidelines, PubMed/MEDLINE, EMBASE and Cochrane Library databases up until June 2021.
- ❖ Studies reporting on IPIs in relation to (proxies for) body composition were eligible.
- ❖ Study quality and risk of bias were assessed using Joanna Briggs Institute (JBI) critical tools.

RESULTS

IPIs were associated with lower body mass index and underweight

- ❖ Most of the studies screened and included in the study were observational (Figure 1).
- ❖ Most observational studies showed IPIs to be associated with lower Body Mass Index (BMI) or being underweight as proxies for body composition.
- ❖ One RCT showed no effect of antiparasitic treatment on body composition.
- ❖ Other RCT showed a significant post-treatment increase in body fat, as measured by BMI z-scores and skinfolds.

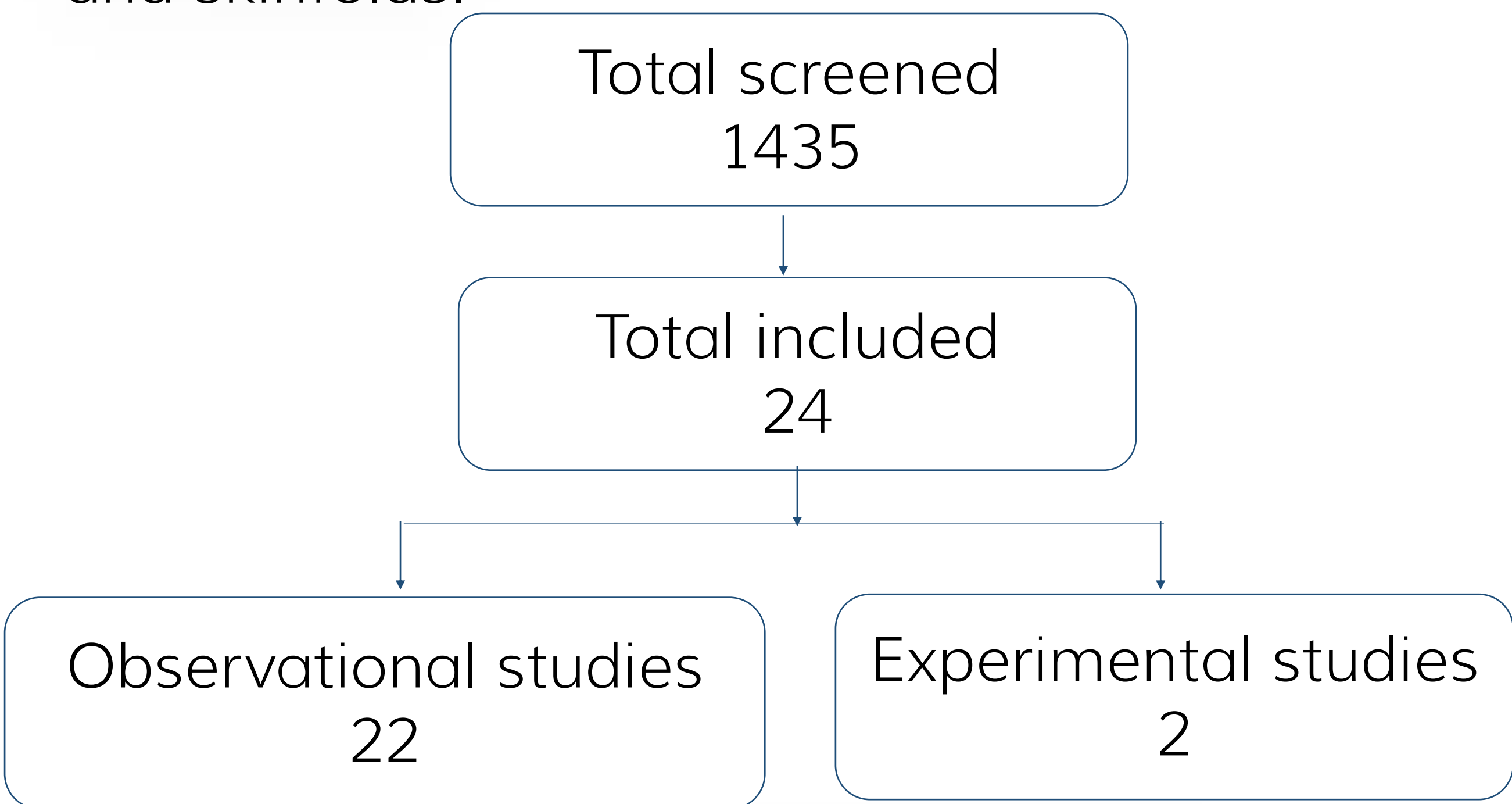


Figure 1: Screening process

CONCLUSION

Studies shows association between IPIs and body composition

We don't know:

- ❖ whether the thinness related to parasite infections is due to loss of fat-free mass, loss of fat or both.
- ❖ weight gain due to parasite clearance can be attributed to muscle gain, fat gain or both.

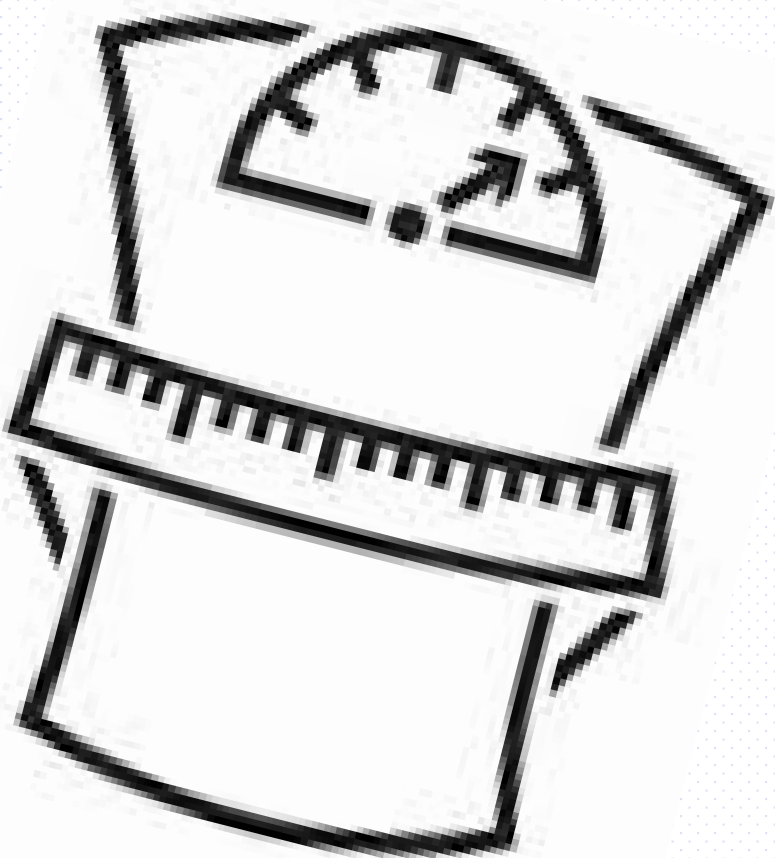
Proxies of body composition



Weight-for-height measures (Body mass index) were the most used



IPIs may contribute to undernutrition and overweight/obesity



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