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ADMINISTRATIVE INFORMATION**Support** - NIL.**Review Stage at time of this submission** - The review has not yet started.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY2024110014**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 4 November 2024 and was last updated on 4 November 2024.**INTRODUCTION**

Review question / Objective 1. Is there any prevalence of erectile dysfunction among obese adults and the physiological mechanisms linking obesity to erectile dysfunction?

2. Is there any role of pelvic floor muscle training (PFMT) as a non-invasive physiotherapy intervention for improving erectile function in obese individuals?

Background Erectile Dysfunction (ED) is described as the inability to obtain or maintain an erection sufficient for satisfactory sexual performance. Erection, a complex event, requires the interplay of neurological and vascular reactions. The global prevalence of ED was 3-76.5 percent. ED was related with increasing age.

Sexual dysfunction in men can negatively impact their mental health, relationships, and overall

quality of life. Sexual dysfunction can cause physical issues such as reduced joint mobility, changes in pelvic floor muscle tone and rhythm, trigger points, decreased blood flow, and pain in the genital area.

Obesity is one of the most overlooked health issues, leading to diabetes and cardiovascular disease. More than 1.9 billion adults are overweight, while 650 million are obese. Being overweight or obese is associated with around 2.8 million deaths. Overweight and obesity have become important public health concerns in both emerging and wealthy countries. Global Burden of Disease Study 2017.

The penile erectile tissue, specifically the cavernous smooth musculature and the smooth muscles of the arteriolar and artery walls, is critical to the erectile function. In the flaccid condition, these smooth muscles contract tonically, enabling just a limited quantity of artery flow for sustenance.

The blood partial pressure of oxygen (PO₂) is typically in the 35mmHg range. The flaccid penis is in a mild state of constriction, as indicated by additional shrinkage in cold conditions and following phenylephrine injection.

Rationale Obesity is closely linked to the development of ED through several mechanisms, including hormonal imbalances, cardiovascular dysfunction, and psychological distress. While medications offer symptom relief, physiotherapy can target the root causes of ED in obese adults, such as poor pelvic muscle strength, inadequate circulation, and metabolic dysfunctions. Improving physical health through structured exercise programs can restore sexual function and enhance quality of life for individuals with obesity-related ED. evaluate the role of physiotherapy in the management of erectile dysfunction (ED) in obese adults. The study seeks to understand how targeted physiotherapeutic interventions, such as pelvic floor muscle training, exercise regimens, and lifestyle modifications, can improve erectile function and overall quality of life in individuals suffering from obesity-related ED.

METHODS

Strategy of data synthesis This scoping review will follow the framework proposed by Arksey and O'Malley (2005), which includes the following steps This systematic review was carried out in accordance with the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) principles. The article research will be done frequently various databases such as "Google Scholar, PubMed, Scopus, Web Of Science and Science Direct".

Eligibility criteria Full text articles written only English Language with Medical Subject Headings (MeSH) terminologies keyword search will be included in the study. The following keyword search, "Erectile Dysfunction", "Obese", "Adults", "Obese Adults" will be conducted through Boolean operators in above mentioned data bases. All kinds of articles will be included in the study such as review articles, case studies, randomized controlled trails (RCTs) and systematic reviews.

Source of evidence screening and selection The screening of the articles will be done through Joanna Briggs Institute (JBI) tool for quality assessment. The studies with having score more than 8 on JBI tool will be included in the study. The screening of the articles will be done manually through first two authors. For any query, the third

author decision will be final in inclusion of the article in the study. Selected articles would undergo rigorous scanning through the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines.

Data management Articles post screening and selection; the selected articles important information will be extracted by the fourth author. The information about the type of the study, study participant population, the kind and length of the intervention, the outcomes will be assessed. The accuracy and consistency of the data will be examined.

Reporting results / Analysis of the evidence The prevalence and best intervention of physiotherapy of erectile injection in obese adults will be reported based on the information gathered type of the study, study participant population, the kind and length of the intervention, the outcomes through selected studies.

Presentation of the results The number of changes with each physiotherapy intervention to treat erectile dysfunction among obese adult population will be displayed in tables, and graphs. The best intervention to help the obese adults will be presented in summary sheet.

Language restriction ENGLISH.

Country(ies) involved India.

Keywords Erectile Dysfunction, Obese, Adults, Obese Adults.

Dissemination plans

Data screening- 2 months

Data extraction- 1 month

Result Reporting- 1 month.

Contributions of each author

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