

# Weight management interventions for people with spinal cord injury: A systematic review and qualitative synthesis.

Madigan, C<sup>1</sup>., King, J.A<sup>1</sup>., Taylor, C<sup>2</sup>., Hoekstra, S<sup>1</sup>., Graham, H<sup>1</sup>., Kirk, N<sup>1</sup>., Fenton J<sup>1</sup>., Goosey-Tolfrey, V.L<sup>1</sup>.

<sup>1</sup>Loughborough University and <sup>2</sup>Sheffield Teaching Hospital NHS Foundation Trust

Nearly **70%** of adults with spinal cord injury (SCI) are obese and are at two-to-three times higher risk for developing related co-morbidities (type 2 diabetes and cardiovascular disease) than those without SCI.

People with SCI demonstrate **~40%** less engagement in physical activity compared to those without SCI.

## OBJECTIVES:

To examine the effectiveness of weight management interventions for people with SCI and to synthesise the experiences of people involved with SCI weight management (e.g., SCI healthcare professionals (HCPs) and caregivers).

## SYNTHESIS OF RESULTS

### Quantitative appraisal

- Weight loss interventions in this population can lead to moderate weight loss.
- Yet only just over a third of individuals achieved a clinically meaningful 5% weight loss.

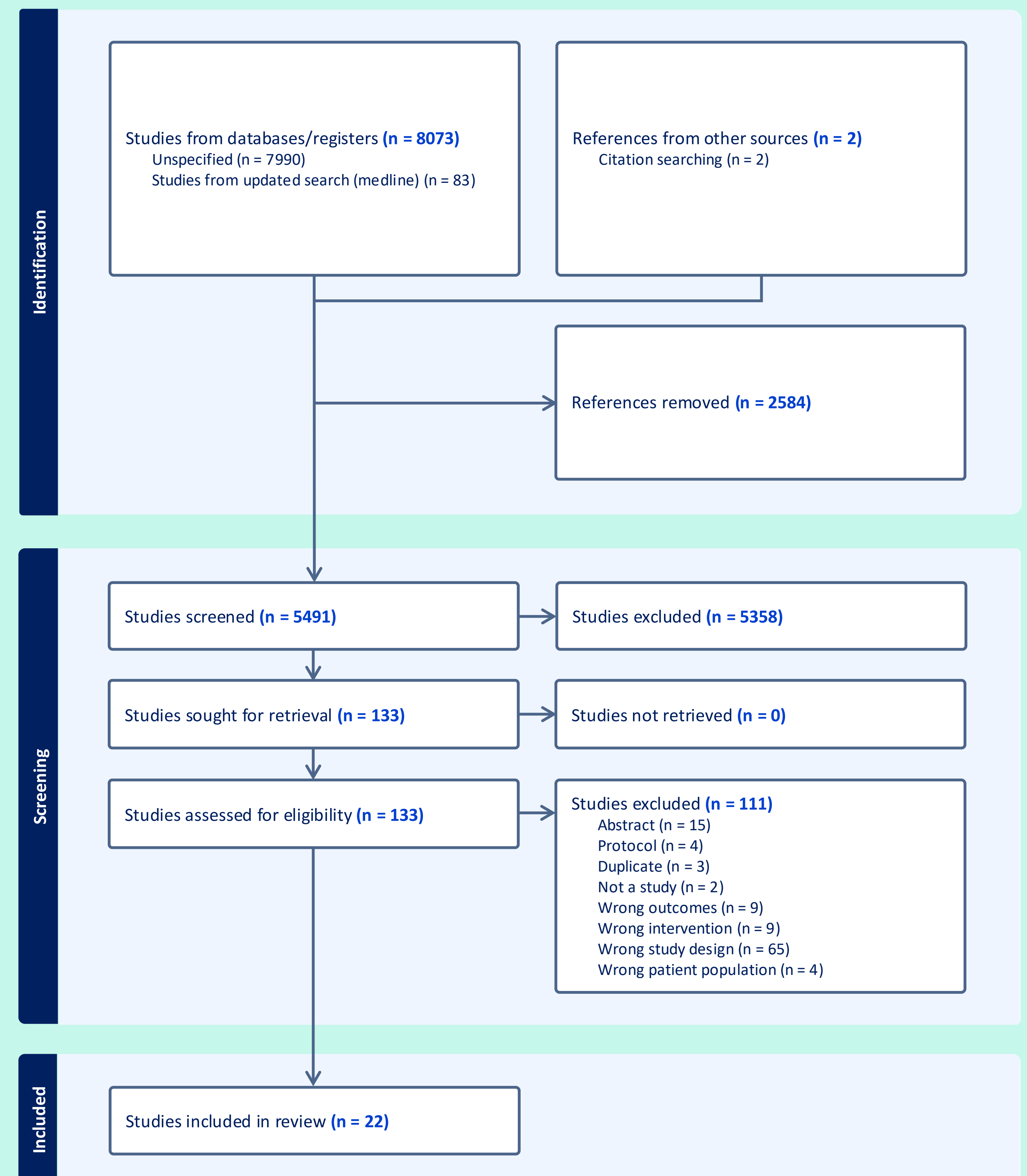


### Qualitative synthesis

- Both people with SCI and HCPs highlighted the difficulty in achieving and maintaining a healthy weight in this population.
- Barriers to weight management interventions included reduced physical activity levels and lack of access to suitable exercise or weighing equipment.
- Many HCPs did not consider weight management a priority in clinical SCI care.
- HCPs did not feel confident in supporting or advising their patients regarding weight management.

## METHODS

Five databases were searched (up to 31<sup>st</sup> July 2023) using terms relating to SCI and weight management.



Included studies were individual RCTs (n = 2), an RCT with a case series (n = 1), pre-post studies (n = 8) and qualitative studies (n = 11).  
Note. RCT = randomised control trial.

## TAKE HOME MESSAGE:

Current interventions for people with SCI need to be improved and/or alternative interventions developed to ensure more individuals experience a clinically meaningful weight loss.

## CLINICAL RELEVANCE OF OUTCOMES:

- Much more research is needed into how to guide weight management in individuals with SCI and share the findings.
- There is a need to create greater awareness during clinical training of HCPs to help them understand and be confident with implementing weight management strategies for persons with SCI.
- We must continue to overcome the barriers to weight management in persons with SCI (e.g., provide access to wheelchair accessible scales in our SCI units).

**FUTURE RESEARCH PRIORITY:** Consolidation of SCI-specific BMI classifications and their application to this population is much needed.

