

# 2022 Best Research Poster Award

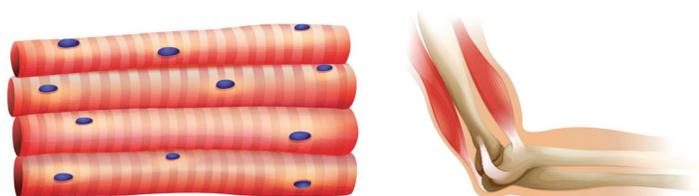
## Is sarcopenia associated with anxiety symptoms and disorders? A systematic review

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### INTRODUCTION

- Sarcopenia is the age-related loss of skeletal muscle mass and function (strength and performance)
- Sarcopenia has recently been linked to neurological and psychiatric disorders such as dementia and depression<sup>1,2</sup>
- Whether sarcopenia is related to other common mental disorders, such as anxiety, remains unclear
- As sarcopenia is potentially reversible, establishing a link with anxiety may have important implications for both prevention and intervention



skeletal muscle

### REVIEW QUESTION

- Is sarcopenia and its defining components associated with anxiety symptoms and disorders in adults?

### METHODS

- This study was conducted following recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement<sup>3</sup>
- The methods for this review were established prospectively and have been published<sup>4</sup>
- An electronic search was performed across four databases: CINAHL, Embase, MEDLINE Complete and PsycINFO

### INCLUSION CRITERIA

<b>Study design</b>	Case-control, cross-sectional, cohort designs and clinical trials (baseline data)
<b>Participants</b>	Studies involving adults aged $\geq 18$ years, any nationality
<b>Sarcopenia</b>	Sarcopenia as defined by a professional group or putative components (muscle mass or muscle function)
<b>Anxiety</b>	Symptoms of anxiety as measured by a validated symptom scale or diagnosis of anxiety-related disorder based on DSM or ICD

- A screening/selection tool was piloted on 30 titles and abstracts
- Records were screened for eligibility by two independent reviewers
- Disagreements were resolved by discussion until consensus reached with consultation with third reviewer where necessary
- A custom data extraction form was used to extract data

### QUALITY ASSESSMENT

- Two reviewers independently assessed the quality of the included studies using the quality assessment tools published by the US National Heart, Lung and Blood Institute
- The overall quality of each study was categorised as follows:
  - high ( $\geq 70\%$ )
  - moderate (40%-69%)
  - low ( $< 40\%$ )

### RESULTS

4,517 unique records screened (title and abstract)

184 records screened (full text)

64 records met eligibility criteria

- In total, 55 cross-sectional studies and nine prospective studies met the predefined inclusion criteria
- The available evidence suggests sarcopenia components (muscle mass, strength and performance) are a risk factor for anxiety
- The majority of studies utilised clinical samples ( $n = 46$ )
- Average quality rating was 'moderate' (40%-69%)

### CONCLUSION

- Many studies demonstrated that individuals with low muscle mass and function have higher rates of anxiety
- However, evidence is heterogenous and many studies had potential risk of bias
- Future longitudinal research that follows high methodological standards is warranted

### REFERENCES

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2. Chang K-V, Hsu T-H, Wu W-T, *et al.* Is sarcopenia associated with depression? A systematic review and meta-analysis of observational studies. *Age Ageing* 2017;**46**:738-46.
3. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, *et al.* The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;**372**:n71.
4. West EC, Williams LJ, Corney KB, Pasco JA. Is sarcopenia associated with anxiety symptoms and disorders? A systematic review and meta-analysis protocol. *BMJ Open*. 2021;**11**(11):e054125.