

Supplementary Table S1: Details of the mixed method appraisal tool (MMAT) assessment.

| No. | Author | Type of study | Score | 1.1 | 1.2 | 1.3 | 1.4 | 1.5 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 |
|-----|-------------------------------------|---------------|-------|--|---|--|--|--|---|--|-----------------------------------|---------------------------------------|--|
| | | | | Is the qualitative approach appropriate to answer the research question? | Are the qualitative data collection methods adequate to address the research? | Are the findings adequately derived from the data? | Is the interpretation of results sufficiently substantiated by data? | Is there coherence between qualitative data sources, collection, analysis, and interpretation? | Is the sampling strategy relevant to address the research question? | Is the sample representative of the target population? | Are the measurements appropriate? | Is the risk of non-response bias low? | Is the statistical analysis appropriate to answer the research question? |
| 1 | Darraj et al., 2022 [17] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 2 | Tang et al., 2022 [18] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 3 | Wang et al., 2022 [19] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 4 | Geng et al., 2022 [20] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 5 | Bhat et al., 2021 [21] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 6 | Salih et al., 2021 [22] | Quantitative | 80% | | | | | | Yes | Yes | No | Yes | Yes |
| 7 | Assy et al., 2021 [23] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 8 | Mendoza et al., 2021 [24] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 9 | Aghamohammadzadeh et al., 2020 [25] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 10 | Xiao et al., 2020 [26] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |

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| 11 | Dai et al., 2020 [27] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 12 | Ahmed et al., 2020 [28] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 14 | Samefors et al., 2020 [29] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 15 | Liu et al., 2020 [30] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 16 | Yang et al., 2019 [31] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 17 | Parveen et al., 2019 [32] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 18 | Yuan et al., 2019 [33] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 19 | Xie et al., 2019 [34] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 20 | Karau et al., 2019 [35] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 21 | Alcubierre et al., 2018 [36] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 22 | Wang et al., 2017 [37] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |

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|-----|---|---------------|-------|--|---|--|--|--|---|--|-----------------------------------|---------------------------------------|--|
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| 23 | Saif et al., 2017 [38] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 24 | Guo et al., 2017 [39] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 25 | Ding et al., 2017 [40] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 26 | Raelene et al., 2017 [41] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 27 | Pan et al., 2016 [42] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 28 | Mori et al., 2015 [43] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 29 | Zoppini et al., 2015 [44] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 30 | Kajbaf et al., 2014 [45] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |
| 31 | Tiwari et al., 2013 [46] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 32 | Gandhe et al., 2013 [47] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 33 | Kostoglou Athanassiou et al., 2013 [48] | Quantitative | 100% | | | | | | Yes | Yes | Yes | Yes | Yes |
| 34 | Payne et al., 2012 [49] | Quantitative | 80% | | | | | | Yes | Yes | Yes | Cannot tell | Yes |

Supplementary Table S2: PRISMA Checklist.

| Section and Topic | Item # | Checklist item | Location where item is reported |
|-------------------------------|--------|--|--|
| TITLE | | | |
| Title | 1 | Identify the report as a literature review. | 1 |
| ABSTRACT | | | |
| Abstract | 2 | Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; and conclusions and implications of key findings. See the PRISMA 2020 for Abstracts checklist for the complete list. | 1 |
| INTRODUCTION | | | |
| Rationale | 3 | Describe the rationale for the review in the context of existing knowledge, i.e., what is already known about your topic. | 2 |
| Objectives | 4 | Provide an explicit statement of the objective(s) or question(s) the review addresses with reference to participants, interventions, comparisons, outcomes, and study design (PICOS). | 2 |
| METHODS | | | |
| Eligibility criteria | 5 | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses with study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale. | 3-4 |
| Information sources | 6 | Specify all databases, registers, websites, organisations, reference lists, and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted. | 3-4 |
| Search strategy | 7 | Present the full search strategies for all databases, registers, and websites, including any filters and limits used. | 3-4 |
| Selection process | 8 | State the process for selecting studies (i.e., screening, eligibility). Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently and, if applicable, details of automation tools used in the process. | 4 |
| Study risk of bias assessment | 11 | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently and, if applicable, details of automation tools used in the process. | 4 |
| RESULTS | | | |
| Study selection | 16a | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram. | 3 (PRISMA flow) |
| | 16b | Cite studies that might appear to meet the inclusion criteria but which were excluded, and explain why they were excluded. | 3; the reason for the studies being excluded is mentioned in the PRISMA flow |
| Study characteristics | 17 | Cite each included study and present its characteristics (e.g., study size, PICOS, follow-up period). | 5-12 |
| Risk of bias in | 18 | Present assessments of risk of bias for each included study. | 4, appendix document |



KIN 4400 Independent Research Study in Kinesiology | PRISMA 2020 Checklist

| Section and Topic | Item # | Checklist item | Location where item is reported |
|---|--------|--|---------------------------------|
| studies | | | |
| Results of individual studies | 19 | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g., confidence/credible interval), ideally using structured tables or plots. | 5-12 |
| DISCUSSION | | | |
| Discussion | 23a | Provide a general interpretation of the results in the context of other evidence. | 9-10 |
| | 23b | Discuss any limitations of the evidence included in the review. | 13 |
| | 23c | Discuss any limitations of the review processes used. | 13 |
| | 23d | Discuss implications of the results for practice, policy, and future research. | 15 |
| OTHER INFORMATION | | | |
| Registration and protocol | 24a | Provide registration information for the review, including register name and registration number, or state that the review was not registered. | 2 |
| | 24b | Indicate where the review protocol can be accessed, or state that a protocol was not prepared. | Not applicable |
| | 24c | Describe and explain any amendments to information provided at registration or in the protocol. | Not applicable |
| Support | 25 | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review. | 14 |
| Competing interests | 26 | Declare any competing interests of review authors. | 13 |
| Availability of data, code, and other materials | 27 | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; and any other materials used in the review. | Not applicable |

The checklist has been adapted for KIN 4400 Independent Research Study in Kinesiology at the University of Guelph-Humber. Last updated: Dec 9, 2021

Adapted From: 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. doi: 10.1136/bmj.n71.

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