

**Journal name**

*Sports Medicine - Open*

**Article title**

The efficacy of interventions targeting 24-hour movement behaviours in children and adolescents: a systematic review and meta-analysis

**Author names**

Jie Feng, Xinyi Yin, Yangyang Shen, Yuchen Wang, Jingjing Jia, Yang Liu

**\* Correspondence to**

Yang Liu

School of Physical Education, Shanghai University of Sport, Shanghai, China;  
docliuyang@hotmail.com

| <u>Study ID</u>     | <u>D1</u> | <u>D2</u> | <u>D3</u> | <u>D4</u> | <u>D5</u> | <u>Overall</u> |                                               |
|---------------------|-----------|-----------|-----------|-----------|-----------|----------------|-----------------------------------------------|
| Bahreynian, 2020    | -         | !         | +         | -         | +         | -              | Low risk                                      |
| Brown, 2018         | +         | !         | +         | +         | +         | !              | Some concerns                                 |
| Brown, 2019         | -         | !         | +         | +         | +         | -              | High risk                                     |
| Champion, 2023      | +         | !         | +         | !         | +         | !              |                                               |
| Donnelly, 2023      | +         | !         | +         | +         | +         | !              | D1 Randomisation process                      |
| Faghy, 2021         | -         | -         | -         | +         | +         | -              | D2 Deviations from the intended interventions |
| Gago, 2023          | +         | !         | +         | +         | +         | !              | D3 Missing outcome data                       |
| Haines, 2018        | +         | !         | +         | +         | +         | !              | D4 Measurement of the outcome                 |
| Hyman, 2020         | -         | !         | +         | +         | +         | -              | D5 Selection of the reported result           |
| Jovanovic, 2023     | -         | !         | +         | +         | +         | -              |                                               |
| Marsh, 2020         | +         | !         | +         | +         | +         | !              |                                               |
| Novotny, 2018       | +         | !         | +         | +         | +         | !              |                                               |
| O'Dean, 2024        | +         | +         | +         | +         | +         | +              |                                               |
| Peuters, 2024       | -         | -         | !         | +         | +         | -              |                                               |
| Puder, 2011         | +         | !         | +         | +         | +         | !              |                                               |
| Sevil, 2019         | -         | !         | +         | +         | +         | -              |                                               |
| Tapia-Serrano, 2022 | -         | !         | +         | +         | +         | -              |                                               |
| Tomayko, 2019       | +         | !         | +         | +         | +         | !              |                                               |
| Ullevig, 2023       | +         | -         | +         | +         | +         | -              |                                               |
| Wu, 2023            | +         | !         | +         | +         | +         | !              |                                               |

Supplementary Table S2. Risk of bias summary