

Resistance Training in Incurable Cancer: A Systematic Review of Training Prescription, Principles, and Programming

Alexander Olai Varjord¹, Guro Birgitte Stene^{1,2}, May Aasebø Hauken¹, Line Merethe Oldervoll¹

¹ Centre for Crisis Psychology, Faculty of Psychology, University of Bergen, Bergen, Norway

² Department of Neuromedicine and Movement Science, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology, Trondheim, Norway

Background and aims

Resistance training (RT) is recommended for people living with incurable cancer, yet how interventions have been prescribed, reported, and informed by established training principles remains unclear.

We set out to answer the following research questions:

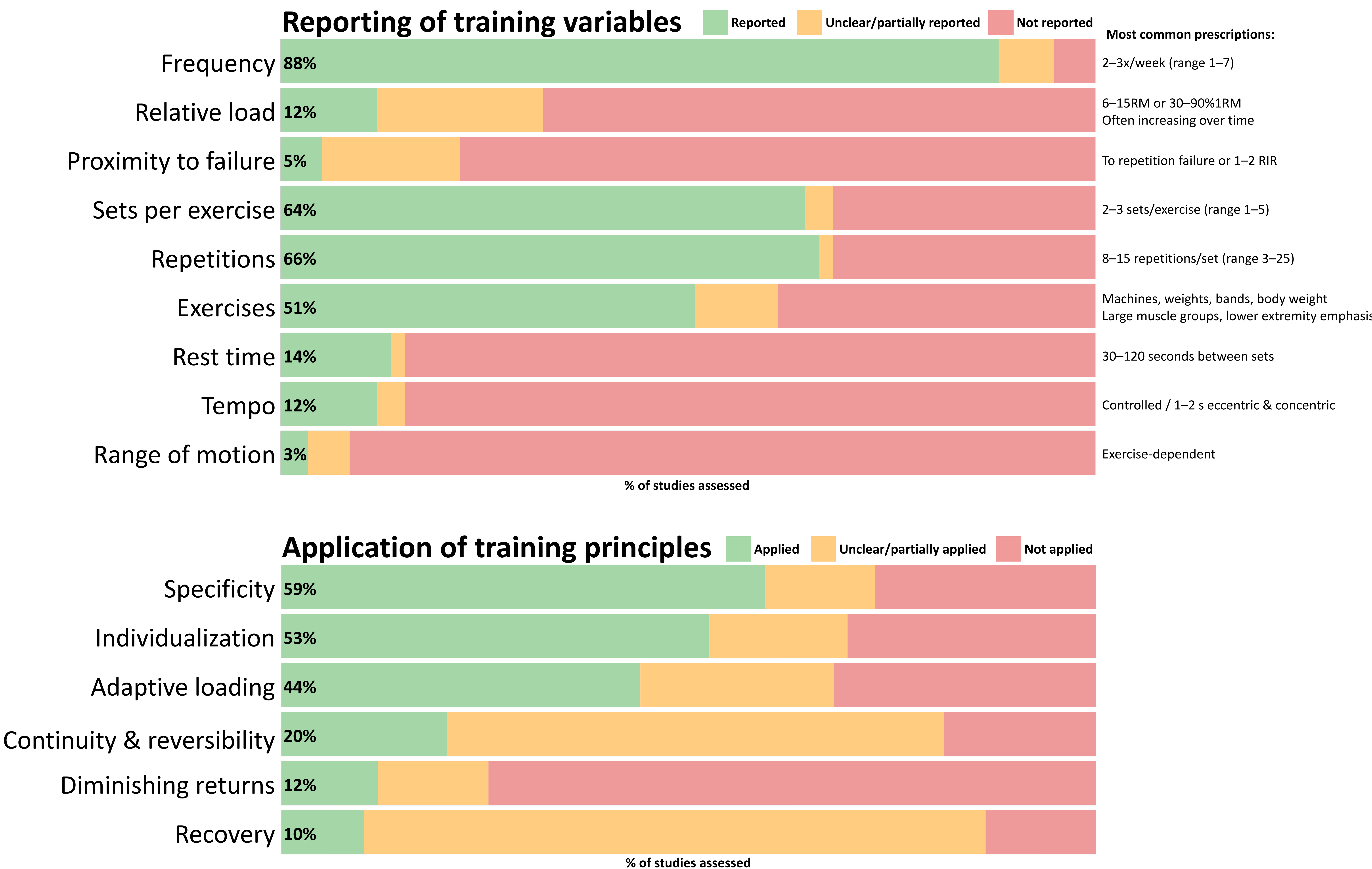
- To what extent are resistance training variables reported?
- How are training variables prescribed?
- To what extent are training principles applied?

Methods

- Systematic review of RT interventions in adults with incurable cancer
- 725 unique abstracts screened, 116 screened in full text, resulting in 59 articles included
- Extracted resistance training variables and assessed reporting completeness
- Evaluated application of six established training principles

Results

Reporting completeness varied substantially across training variables. Training frequency was commonly reported, while sets, repetitions and exercises were reported in 51–66% of studies. Intensity descriptions were often vague and not replicable. Clear indications of training principle application were frequently lacking.



Conclusion and key takeaways

- Key components of RT interventions were frequently underreported
- Incomplete intervention reporting may limit interpretation and reproducibility
- Developing RT-specific reporting standards may improve the reporting and reproducibility of future RT interventions
- Intervention descriptions frequently lacked clear indications that training principles were applied
- Deliberate application of established training principles may help unlock the therapeutic potential of resistance training



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Contact

Alexander Olai Varjord (PhD candidate)
University of Bergen
alexander.varjord@uib.no

Scan QR for more information!

