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Developing an international consensus to evaluate the practical inclusion of autoregulation in exercise oncology practice

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Exercise is essential for managing side effects, maintaining fitness, and improving quality of life across the cancer continuum. However, current guidelines lack practical recommendations for adjusting exercise based on daily fluctuations. Autoregulation—the ability to adjust exercise variables based on individual readiness to train—offers a pragmatic strategy to address daily fluctuations and improve long-term adherence. Though Exercise and Sports Science Australia guidelines mention autoregulation, evidence-based guidance and consensus for its application in exercise oncology practice remains limited.

To obtain consensus on autoregulation definition(s), practical applications, and implementation strategies for exercise oncology prescription.

Exercise professionals with ≥ 2 years' experience in cancer exercise prescription will be invited to complete three online Delphi rounds (20 minutes per round). Thirty participants completed round one (conducted July 2025). Round 1 comprised open-ended questions exploring current understanding and practice; responses were content-analysed to generate consensus statements. Respondents were predominantly exercise physiologists (n=60%) and physiotherapists (n=13%); 73% were clinical practitioners with an average of 8 years' experience (range 2–20), and most were from Australia (n=57%), followed by USA (23%). Round 2 is in progress, and panellists will rate statements on a 5-point Likert scale. Round 3 will address borderline consensus items and confirm final agreement. A-priori consensus is defined as $\geq 80\%$ agreement/disagreement among respondents.

Round 1 (n=30) revealed autoregulation is universally applied across all cancer types and exercise modes, with intensity and volume as primary variables modified. Key themes included: clinicians rely on real-time assessment to guide decisions; significant evidence gaps remain despite the widespread use of autoregulation; and clinicians typically develop expertise through experience rather than formal training. Round 2–3 is in progress and will establish consensus on autoregulation definitions, practical application methods, and implementation strategies. The final consensus statements will provide expert recommendations to strengthen future exercise oncology guidelines and support more personalised cancer exercise prescription.

Keywords

Autoregulation; Exercise oncology; Exercise prescription; Delphi consensus

Conflict of Interest & Ethical Approval

yes

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yes

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