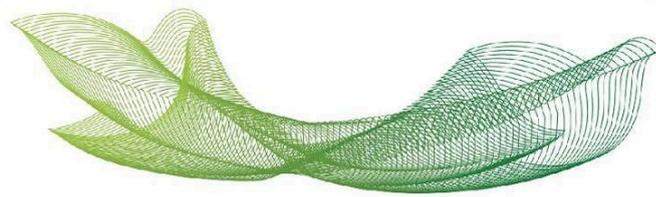




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Resumo	<p>Background High-intensity interval training (HIIT) performed before, during, and after cancer treatment can attenuate the adverse effects induced by anti-cancer drugs. A clear presentation and rationale of characteristics of HIIT variables is vital to produce the expected HIIT adaptations in cancer patients. However, there are concerns regarding the HIIT protocols used in the cancer literature. Objectives The aims were to (1) identify the characteristics of HIIT and the formats that have been prescribed, (2) analyze which anchors have been utilized to prescribe effort and pause intensity, (3) examine characteristics of the physical tests used for HIIT prescription, and (4) identify potential adverse events related to HIIT intervention. Methods This scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines, including PubMed, Scopus, and Web of Science databases. Results A total of 51 studies were retrieved, and the following results were found: (1) Only 25 studies reported all four essential variables for HIIT prescription [effort intensity (effort duration): pause intensity (pause duration)]. Of these studies, 23 used active pause and employed the following prescription (on average): [84% (116 s): 39% (118 s)] when percentage of maximal aerobic power (MAP) [maximal/peak oxygen uptake (VO₂max/peak)/MAP] was used; [124% (161 s): 55% (142 s)] when percentage of anaerobic threshold (AT) was used; [83% (230 s): 62% (165 s)] when maximal heart rate percentage (%HRmax) was used. From these 23 studies, 12 used VO₂max/peak/MAP (one of the most recommended variables for HIIT prescription). Seven studies adopted the HIIT-long format, and in the remaining five studies, the format was unclear. (2) Twenty-four studies used fractions of VO₂max/peak or mechanical variables like MAP as anchors for prescribing effort intensity, two studies used AT, 20 studies used fractions of HRmax/heart rate reserve, two studies used rate of perceived exertion (RPE), while one used RPE and %VO₂peak concomitantly, and two studies utilized RPE/%HRmax</p>



concomitantly. Two studies utilized passive resting, 12 studies used %VO₂peak/%MAP for prescribing pause intensity, four studies used AT, seven studies used %HR max, one study used %HRmax/%VO₂peak, and two studies used absolute loads. (3) Ten studies did not report the characteristics of the physical tests employed, two studies used submaximal tests, and 39 studies utilized graded exercise tests. (4) Ten studies did not report if there were adverse events associated with the exercise program, while 34 studies did not report any adverse events. Conclusions Only 50% of the studies provided all the necessary variables for accurate HIIT prescription, raising concerns about the replicability, comprehension, and effective application of HIIT in cancer patients. Most of the studies that reported all variables appeared to have employed the HIIT-long format. Only a few studies used more individualized anchors (e.g., AT) to prescribe HIIT-long format for cancer patients, which is considered a very heterogeneous population.

Fomento

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