

- Future research should consider actively engaging parents and highlighting elements of culture and religion to promote PA participation among Middle Eastern adolescent girls.

Conflict of interest statement: My co-authors and I acknowledge that we have no conflict of interest of relevance to the submission of this abstract

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Is pre-season physical screening a waste of time? Just ask the coaches

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Introduction: Coaches are usually central to team performance and player selection, however, their observations and judgements may be also be useful to the medical team where functional screening for injury prevention and recovery typically occur. This study aimed to assess whether soccer coaches' assessment of their players' physical skills is associated with the players' physical performance on formal performance testing during pre-season.

Methods: Soccer players were rated subjectively by two coaches independently. The coach's subjective rating applied their expert opinion to score different movements and skills of the soccer players (technical, tactical, physical and psychological). Each player was rated out of 100, as compared to the coach's perceptions of the world's leading players in those positions. The ratings were the mean of two coaches' observations to produce one rating for each participant. The Intra-class Correlation Coefficient (ICC) was utilised to assess the reliability of the inter-coach ratings. Player scores on four common functional tests were evaluated by team medical staff independently of the coaches' ratings. The four functional tests assessed were the Y-balance test (normalised anterior, posteromedial, and posterolateral), triple medial hop, triple forward hop, and hexagon agility test. Decision tree analysis was deployed to determine: 1) How closely coaches' ratings of physical aptitude are associated with functional testing scores. 2) What cut-off values best discriminate between higher and lower coach ratings.

Results: Sixty-three male professional soccer players (23.08 ± 1.34 years) from the Saudi Professional League volunteered to participate. The ICC values ranged from 0.73 to 0.79. for the coach ratings of physical skill, indicating good to excellent agreement between the coaches. The tree model demonstrated that functional performance scores and coach rating of physical skill agreed in 86% (54/63) of ratings, 88% precision and 91% recall. The confusion matrix shows that the algorithm using functional testing scores correctly rated 88.4% of players classified as high physical performers by their coaches, and 80% of lower-rated players. The decision trees provided cut-off scores where high physical performance ratings from the coaches were given to 42 out of 63 players. The cut-off scores that best discriminated between higher and lower coach ratings were; average bilateral anterior normalised Y-balance test greater than 63.7 cm, and average bilateral triple medial hop between 408.3 cm and 481.7cm; and average bilateral posterolateral normalised Y-balance test greater than 88.2 cm.

Conclusion: Qualitative judgement of physical skill by coaches closely matched independently measured functional performance tests in this study. Findings from this study could be used to assist in player selection and preparation criteria.

Impact and application to the field:

- Both general and sport-specific player capabilities can be evaluated through physical testing.
- Sporting teams should take advantage of the coach rating scales of soccer players to enhance player return to play post-injury.

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The impact of high intensity resistance training on low back pain disability: a systematic review and meta-analysis

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Introduction: Low back pain (LBP) is a leading cause of disability and lost work time worldwide. Exercise is recommended by clinical practice guidelines for reducing symptoms of LBP. Resistance training is commonly used due to the hypothesis that it improves function. High Intensity Resistance Training (HIRT) is used in some clinical settings with the aim of increasing strength to build resilience for functional movement, but no previous studies have established the evidence for this approach. We aimed to assess whether HIRT was as, or more, effective than other forms of rehabilitation or no intervention on reducing disability and pain in adult populations with LBP.

Methods: This systematic review and meta-analysis examined randomised controlled trials of adults with non-specific LBP of any duration. Trials were included if the primary intervention was HIRT (any comparator was acceptable) and if they included disability and pain outcome measures. Two team members independently completed all screening and data extraction. Four meta-analyses examined the effect of HIRT on disability, comparing HIRT to other exercise and to physiotherapy at discharge and 6-12 month post-treatment using standardised mean difference. Two meta-analyses investigated with effect of HIRT on pain, comparing HIRT with other exercise at discharge and 6-12 months post-treatment using mean difference. Standardised mean difference [SMD] (or mean difference [MD] when outcomes were consistent) were used for comparisons, and GRADE was used to assess the quality of evidence.

Results: Nine randomised controlled trials met inclusion criteria (n=821 participants). The risk of bias of the studies was low to moderate (PEDro scores 3-7/10, median 6), with weaknesses in the reporting of interventions, comparators and adverse events. HIRT interventions consisted of whole-body exercises, multimodal training or progressive resistance training. Moderate to high quality evidence from four meta-analyses found that high intensity resistance training is as effective as other exercise or other therapy for reducing disability in patients with chronic LBP (SMDs ranged from -0.16 to 0.06). High quality evidence from two meta-analyses found that high intensity resistance training was more effective at reducing pain when compared to other exercise (MDs 0.50 and 0.51) in chronic LBP, however the differences in pain reduction between interventions may not be