ABSTRACT

Background:
Carrom is a widely played tabletop game requiring fine motor control, precise force application, and accurate aiming. Despite its global popularity and professional competitions conducted by the International Carrom Federation (ICF), there is a lack of objective, sport-specific tools to assess force-control skills. Existing generic scales (e.g., NRS, VAS, DASH) may not adequately capture carrom-specific performance. Therefore, development and validation of a carrom-specific skill scoring scale is essential for coaching, rehabilitation, and research.

Methodology:
This study proposes the development of the Carrom Skill Scoring Scale (CSSS), a multi-item performance-based tool is focusing on force-control and accuracy. This study is conducted with **20** participents (**n=20**). An initial pool of seven tasks with a 0–5 Likert scoring system is constructed. Content validity is established through expert review (I-CVI and S-CVI), followed by face validity assessment among players. A pilot study will evaluate feasibility, clarity, and scoring. Reliability is assessed using internal consistency measures, including item-total correlation and "alpha if item deleted," using statistical software.

Results:
It is expected that all items in the CSSS will demonstrate positive item-total correlations, indicating that they measure a common construct—force-control skill. The scale is anticipated to show good internal reliability, with poorly performing items identified for modification or removal to enhance overall consistency.

Internal Consistency: Measured using **Cronbach's alpha (α)**
$\alpha \geq 0.7 \rightarrow$ Acceptable
$\alpha \geq 0.8 \rightarrow$ Good

Item Analysis: **Corrected item-total correlation** (acceptable if ≥ 0.3)
Cronbach's alpha if item deleted to identify weak items

Conclusions:
The validated CSSS provide an objective, reliable, and sport-specific tool for assessing force-control in carrom players. It support clinical evaluation, performance training, and future research on validity and responsiveness.

Keywords:
Carrom, Force Control, Skill Scoring Scale, Reliability, Performance Assessment

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