

The Design and Development of the Functional Arm Scale for Throwers[®] (FAST[®])

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Purpose: To design and develop a region specific patient self-report outcome scale for the assessment of health-related quality of life (HRQOL) in throwers with arm injuries. Further, we sought to create a single self-report scale that could be used to assess global HRQOL through the measurement of 5 disablement domains (pain, impairment, functional limitation, disability, and societal limitation) using both sport-related and non-sport related questions. **Subjects:** Phase I: 4 developers. Phase II: A 55-member expert panel (18 healthcare providers, 24 high school throwing athletes, 8 college throwing athletes, 1 professional baseball athlete, and 4 baseball/softball coaches). Phase III: A 6-member interpretability focus group (3 high school baseball players, 3 high school softball players). **Methods:** During Phase I (Item Generation and Classification Consensus), scale items were generated, and then a consensus process was used to classify each item into one of the 5 disablement domains and to further classify each item as 'sport-related' or 'non-sport related'. During Phase II (Expert Panel: Item Importance and Item Reduction), the importance of each item for determining the impact of the thrower's arm injury on HRQOL was rated on a 5 point Likert scale and the total number of items was reduced. During Phase III (Focus Group: Interpretability), a focus group of adolescent throwers was used to assess the interpretability of each item. **Results:** Phase I item generation yielded an 88-item scale. The Phase II item importance and item reduction by the expert panel reduced the scale to 55 items plus a 9-item pitcher module. Phase III identified one question that was difficult for adolescents to interpret, so it was removed. This resulted in a final scale of 54-items, plus a 9-item pitcher module, with the items classified accordingly: Pain = 11 (6 sport-related and 5 non-sport related), Impairment = 16 (8 sport-related and 8 non-sport related), Functional Limitation = 14 (12 sport-related and 2 non-sport related), Disability = 15 (10 sport-related and 5 non-sport related), and Societal Limitation = 7 (1 sport-related and 6 non-sport related). **Conclusions:** We designed and developed a region specific patient self-report scale for the assessment of HRQOL of throwers with arm injuries called the Functional Arm Scale for Throwers[®] (FAST[®]). The next stages of development should include field-testing for final item reduction and subsequent assessment of the scale's measurement properties. **Clinical Relevance:** Little is known about the impact of arm injury on baseball and softball throwers' HRQOL. Existing patient self-report scales for the upper extremity were not developed for use in high demand athletic populations, such as overhead throwers. With further development, the FAST[®] may prove to be a valuable region specific self-report scale for assessing the effectiveness of interventions in throwers with upper extremity disorders.