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# Smith-Forbes, E., Howell, Dana M., Pitts, G., Willoughby, J., & Uhl, T. (Minimal Clinical Important Difference of the Quick Disabilities of the Arm, Shoulder, and Hand (Quickdash) for Post-Surgical Finger Phalanx Fractures

E. Smith-Forbes

*Brooke Army Medical Center, Joint Base San Antonio, Texas*

Dana M. Howell

*Eastern Kentucky University*

J. Willoughby

*Drayer Physical Therapy Institute, Lexington, Kentucky*

G. Pitts

*Drayer Physical Therapy Institute, Lexington, Kentucky*

T. Uhl

*University of Kentucky*

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MINIMAL CLINICAL IMPORTANT DIFFERENCE OF THE QUICK DISABILITIES OF THE ARM SHOULDER AND HAND (QUICKDASH) FOR POST-SURGICAL FINGER PHALANX FRACTURES

**E. Smith-Forbes<sup>1</sup>**, D. Howell<sup>2</sup>, J. Willoughby<sup>3</sup>, G. Pitts<sup>3</sup>, T. Uhl<sup>4</sup>

1. Graduate Medical Education, Brooke Army Medical Center, Joint Base San Antonio, TX, United States.
2. Occupational Therapy, Eastern Kentucky University, Richmond, KY, United States.
3. Hand Therapy, Kentucky Hand & Physical Therapy/ Drayer Physical Therapy Institute, Lexington, KY, United States.
4. Rehabilitation Sciences, University of Kentucky, Lexington, KY, United States.

**Purpose:** STUDY DESIGN: Retrospective, multiple-group observational design.

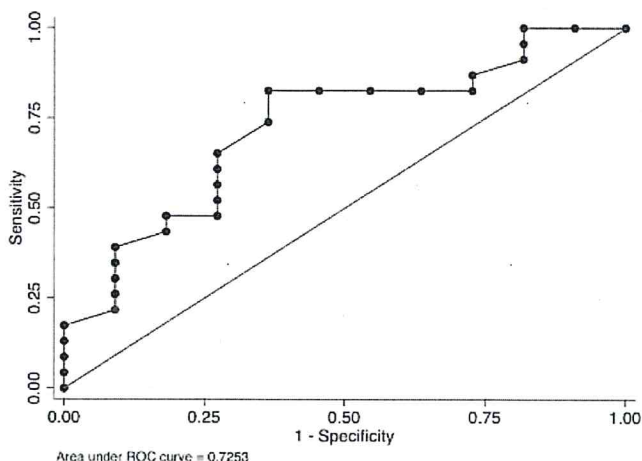
**OBJECTIVES:** To determine the minimal clinically important difference (MCID) for the Quick Disabilities of the Arm, Shoulder and Hand (QuickDASH) outcome measure, for post-surgical finger palanx fracture diagnosis, using a triangulation of distribution-and anchor-based approaches.

**BACKGROUND:** The MCID for the QuickDASH has been established using a pool of multiple conditions, and specifically for the shoulder, and other diagnoses in the elbow and wrist, but not for post-surgical finger fracture. Understanding specific threshold change values for post-surgical finger fracture can enhance the clinical decision-making process.

**Methods:** METHODS: The QuickDASH scores were obtained from a database for 34 participants (mean ffl SD age, 45 ffl 16 years; 15 women) before and after a hand therapy program. The external anchor administered at each fourth visit in the program was a 15-point global rating of change (GROC) scale. A stable cohort of patients of the GROC range (-2 to +2), (n=14) was used to establish the reliability. Scores were obtained for twelve visits (mean ffl SD length of treatment, 36 ffl 15 days).

**Results:** RESULTS: The test-retest reliability of the QuickDASH was fair (intraclass correlation coefficient model 2,1 = 0.51). The minimum detectable change (MDC) at the 90% confidence level was 33.37 points for the QuickDASH. The mean-change approach was 18.6 ffl 20.5. After triangulation of the MDC with those of the mean-change approach and receiver-operating-characteristic-curve (ROC) analysis, a QuickDASH MCID value for the ROC of 20.5 points was selected, with (sensitivity, 73%; specificity, 63%) 70% correctly classified.

**Conclusion:** CONCLUSION: The MCID values from this study for the QuickDASH (20.5 points) could represent the estimate of change in score that is important to the post-surgical finger fracture patient.



**KEYWORDS:** disability evaluation, Musculoskeletal, psychometrics, outcome assessment, Upper Extremity.

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PATIENT PREFERENCE FOR HOME EXERCISE PROGRAM PROVISION: A PATIENT SURVEY

**K. Valdes<sup>1</sup>**, A. Campbell<sup>1</sup>

1. Occupational Therapy, Gannon University, Sarasota, FL, United States.

**Purpose:** The purpose of this study was to determine preferences of adults receiving outpatient hand therapy services between paper and video home exercise program (HEP) provision. Secondly, the research hoped to explore if a novel method of providing home programs using cellular technology would be client centered.

**Methods:** A mixed methods cross sectional design study was performed to determine the preferred mode of HEP delivery as well as, investigate preferable qualities of home exercise programs as reported by patients. A convenience sample was recruited from clients receiving services at a hand and upper extremity rehabilitation facility. Patients identified by the hand therapist as in need of a HEP were invited to participate in the study. Additional inclusion criteria consisted of literacy in spoken and written English, and the possession of a personal electronic device with capacity to record and replay short (1-3 minute) video. Exclusion criteria included individuals under the age of 18 years old. Those who were selected and choose to participate and completed the consent form were provided the choice between a hand drawn HEP or a video version of themselves performing the exercises of their HEP. IRB approval was received for the study. All videos were stored only on participant's personal device. Participants whom provided written consent will be asked to complete a patient preference questionnaire and a demographic survey. The patient preference questionnaire was developed specifically for this study. To the best of the researcher's knowledge no current standardized assessment for measuring patient preference applicable to HEPs currently exist. The questionnaire was purposefully created to be brief for efficient use in clinical settings. The questionnaire was comprised of six open ended questions investigating distinct qualities of HEPs such as comprehensiveness and visual appeal.