



ELSEVIER

ORIGINAL ARTICLE

Resilience correlates with outcomes after total shoulder arthroplasty

John M. Tokish, MD^{a,*}, Michael J. Kissenberth, MD^a, Stefan J. Tolan, MD^a,
Tariq I. Salim, BS^b, Josh Tadlock, BS^b, Thomas Kellam, BS^b, Catherine D. Long, BS^c,
Ashley Crawford, BS^c, Keith T. Lonergan, MD^a, Richard J. Hawkins, MD^a,
Ellen Shanley, PT, PhD, OCA^d

^aSteadman Hawkins Clinic of the Carolinas, Greenville Health System, Greenville, SC, USA

^bSchool of Medicine, University of South Carolina-Greenville, Greenville, SC, USA

^cHawkins Foundation, Greenville, SC, USA

^dATI Physical Therapy, Greenville, SC, USA

Background: Resilience, characterized by an ability to bounce back or recover from stress, is increasingly recognized as a psychometric property affecting many outcomes' domains including quality of life, suicide risk in active-duty military personnel, and recovery in cancer patients. This study examines the correlation between resilience, as measured by the Brief Resilience Scale (BRS), and traditional outcome scores including the American Shoulder and Elbow Surgeons (ASES), Single Assessment Numeric Evaluation (SANE), and Penn scores in patients undergoing total shoulder arthroplasty (TSA).

Methods: Seventy patients undergoing primary anatomic TSA were followed up for a minimum of 2 years (mean, 30 ± 3 months). Patients were stratified into groups a priori, based on deviation from the mean of the BRS score, into low-resilience (LR), normal-resilience (NR), and high-resilience (HR) patients, and outcome scores were calculated for each group.

Results: Postoperative BRS scores significantly correlated with ASES, Penn, and SANE scores ($r = 0.41$ – 0.44 , $P < .004$ for all scores). When we evaluated patients based on resilience group, the LR group had a Penn score that was 34 points lower than that in the HR group. Likewise, the LR group had a SANE score that averaged 40 points lower than that in the HR group (SANE score of 53 points in LR group and 92 points in HR group, $P = .05$). When we evaluated ASES subscores, it appeared that the pain subscale was responsible for most of the difference between the LR and HR groups (29 points and 48 points [out of 50 points], respectively; $P = .03$).

Conclusions: Resilience is a major predictor of postoperative outcomes after TSA. Patients who are classified as having LR have outcome scores that are 30 to 40 points lower on traditional outcome scales than patients with HR.

Institutional review board approval for this project was received from Greenville Health System (#Pro00040469).

*Reprint requests: John M. Tokish, MD, Steadman Hawkins Clinic of the Carolinas, Greenville Health System, 200 Patwood Dr, Ste C100, Greenville, SC 29615, USA.

E-mail address: jtokish@ghs.org (J.M. Tokish).

Level of evidence: Level II; Prognosis Study

© 2017 Journal of Shoulder and Elbow Surgery Board of Trustees. All rights reserved.

Keywords: Total shoulder arthroplasty; outcomes; resilience; osteoarthritis; psychometrics; quality of life

Shoulder arthritis is common in older adults and has a significant impact on quality of life and well-being.¹¹ Patients perceive that the impact of shoulder osteoarthritis is comparable with that of chronic medical conditions such as congestive heart failure, diabetes, and acute myocardial infarction.⁸ Furthermore, patients with osteoarthritis demonstrate debilitating associations with depression, anxiety, activity limitations, and job performance problems.¹⁶ Total shoulder arthroplasty (TSA) is a well-accepted treatment for painful shoulder osteoarthritis that has failed conservative management. Although outcomes after TSA show nearly universal improvement, the surgical procedure and recovery are stressful events and careful patient selection and preparation are critical factors in determining a successful outcome. Little research has evaluated whether psychometric properties affect outcomes after TSA. Recently, patients with a preoperative psychiatric diagnosis were shown to have an increased risk of perioperative morbidity after TSA,² but no study has looked at the effect of psychometric properties on clinical outcomes after shoulder arthroplasty.

Resilience, characterized by an ability to bounce back or recover from stress,¹² is increasingly recognized as a psychometric property affecting many outcomes' domains including quality of life, suicide risk in active-duty military personnel, and recovery in cancer patients. It has been shown that high-resilience (HR) groups use health care far less than their

low-resilience (LR) counterparts.⁷ Although resilience has been extensively studied in response to stressful events, there are few data on the relationship between resilience and musculoskeletal health, and no study has evaluated the relationship between resilience and outcomes after surgical intervention. There are several outcome measures for resilience.^{1,21} The Brief Resilience Scale (BRS) is a 6-item Likert scoring scale (Fig. 1) that has been shown to be a reliable measure of resilience in both youth and older patients with chronic disease.²¹ The purpose of this study was to examine the correlation between resilience, as measured by the BRS, and traditional outcome scores including the American Shoulder and Elbow Surgeons (ASES), Single Assessment Numeric Evaluation (SANE), and Penn scores in a population of patients undergoing TSA. We hypothesized that resilience would correlate with accepted measures of shoulder outcomes.

Methods

Demographic characteristics

Seventy patients undergoing primary TSA were followed up for a minimum of 2 years (mean, 30 ± 3 months). There were 19 male and 51 female patients, with an average age of 65 ± 10 years. Patients were identified as part of an outcome database from the first 100 patients to reach minimum 2-year follow-up after TSA and to

Brief Resilience Scale					
Instructions: Use the following scale and circle one number for each statement to indicate how much you disagree or agree with each of the statements.					
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree					
1. I tend to bounce back quickly after hard times..	1	2	3	4	5
2. I have a hard time making it through stressful events.....	1	2	3	4	5
3. It does not take me long to recover from a stressful event.....	1	2	3	4	5
4. It is hard for me to snap back when something bad happens.....	1	2	3	4	5
5. I usually come through difficult times with little trouble.....	1	2	3	4	5
6. I tend to take a long time to get over set-backs in my life.....	1	2	3	4	5

Figure 1 Brief Resilience Scale questionnaire with 6 items and Likert score options.²¹

Download English Version:

<https://daneshyari.com/en/article/5710454>

Download Persian Version:

<https://daneshyari.com/article/5710454>

[Daneshyari.com](https://daneshyari.com)