Commentary

Commentary on: The BODY-Q Chest Module: Further Validation in a Canadian Chest Masculinization Surgery Sample

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William M. Kuzon Jr., MD, PhD; and Shane D. Morrison, MD, MS

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The BODY-Q is a validated patient-reported outcomes (PRO) instrument developed by Drs Klassen, Pusic, and colleagues, the originators and leaders in PRO research in plastic surgery over the past 2 decades. The BODY-Q is comprised of several modules, and the Chest Module was previously validated in an international sample of transgender men who underwent chest-masculinization surgery.[1] The current paper reports an additional validation study of the BODY-Q Chest Module in transgender men who underwent chest masculinization at a single Canadian surgical practice.[2] In a large sample of patients (n = 120) who completed a large number of pre- and post-operative assessments (n = 266), the authors demonstrate convincingly that the Chest Module meets validity criteria for utilization as a PRO instrument in their patient sample. Their patient cohort was far more specific than that in the previous studies in terms of age demographics (over 60% of patients were 20-29 years of age), and all patients were from a single Canadian surgical practice, indicating that the Chest Module is applicable for research purposes in single-center studies and across a wide demographic of transgender men. Because valid PRO instruments for utilization in transgender populations have been widely acknowledged as a significant deficiency in research studies of gender-confirming surgery outcomes, this study represents an important contribution to our literature and to the care of transgender patients in general.

The statistical methodology in the paper is complex and likely beyond the expertise of most readers of the *Aesthetic Surgery Journal*. That said, the core of the statistical approach is Rasch Measurement Theory, where the basic concept is to achieve accuracy in "distribution-free" measurement. For example, when measuring IQ, your IQ should be accurately measured regardless of the distribution of IQs in the sample or the population studied. Of note, the American Board of Plastic Surgery employs Rasch statistical methods to score the Certifying (Oral) Examination in Plastic Surgery to ensure candidates pass or fail on their own merit and not by comparison with others taking the exam that year or over time. The Rasch approach, and the additional statistically rigorous and thorough validation of each instrument, is what makes the "Q" modules so valuable.

The authors are careful to point out some limitations of the study, specifically the single-center study sample and the lack of cross-validation instruments. Although single-center studies are problematic in many ways, in this instance and as noted above, we view the single-center nature of the study as a strength indicating that even in a very specific population, the Chest Module retains validity. Although the authors are correct that there are few PRO instruments validated in the transgender populations, an enormous bulk of previous literature utilizing ad-hoc or

From the Section of Plastic Surgery, University of Michigan, Ann Arbor, MI, USA.

Corresponding Author:
Prof William M. Kuzon Jr., University of Michigan Section of Plastic Surgery, 2130 Taubman Health Care Center, 1500 E. Medical Center Drive, Ann Arbor, MI 48109, USA.
E-mail: wkuzon@med.umich.edu

validated but non-specific PRO instruments supports the authors' overall observation that transgender men derive significant health benefit in multiple domains from chest masculinization surgery. That is, although valid scientific measurement is critically important, to quote a Nobel Laureate, "You don't need a weatherman to know which way the wind blows."[3]

Despite the overall strength of this study and our concurrence that the data validate the utilization of the Chest Module specifically for transmale populations, the reported overall complication rate of 23/120 or 19% in the study sample is out of step with most literature, where the complication rates for chest masculinization are generally over 20%, range up to 44%, and are very dependent on the specific surgical technique utilized.[4] The complication rate in this study is actually inflated by including "dog-ear" as a complication when, in fact, it is not a complication but rather an unavoidable reality for many overweight or obese patients. Removing dog-ear lowers the complication rate in the current sample to 14/120, or 11%, lower than almost all reported series. Dr McLean and his team are among the most experienced of our colleagues performing gender-confirming chest masculinization so their complication rate should not be viewed as "typical" for this type of surgery and should also be viewed in light of the geographic demographics of the sample; patients from great distances may not present to their original surgeon with complications, especially for minor and self-resolving issues.

That one cautionary comment aside, this work is an important contribution to our literature. The scientific rigor of these data will allow the Chest Module and, eventually, the Gender-Q to address the ubiquitous criticism of the current literature that we lack specific, validated instruments to assess outcomes of gender-confirming surgery. Valid studies demonstrating efficacy and evaluating specific surgical approaches will lead to improved access-to-care and to improved surgical outcomes for our patients.

Disclosures

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