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SPECIAL TOPIC

The Utility of Outcome Studies in Plastic Surgery

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Summary: Outcome studies help provide the evidence-based science rationalizing treatment end results that factor the experience of patients and the impact on society. They improve the recognition of the shortcoming in clinical practice and provide the foundation for the development of gold standard care. With such evidence, health care practitioners can develop evidence-based justification for treatments and offer patients with superior informed consent for their treatment options. Furthermore, health care and insurance agencies can recognize improved cost-benefit options in the purpose of disease prevention and alleviation of its impact on the patient and society. Health care outcomes are ultimately measured by the treatment of disease, the reduction of symptoms, the normalization of laboratory results and physical measures, saving a life, and patient satisfaction. In this review, we outline the tools available to measure outcomes in plastic surgery and subsequently allow the objective measurements of plastic surgical conditions. Six major outcome categories are discussed: (1) functional measures; (2) preference-based measures and utility outcome scores; (3) patient satisfaction; (4) health outcomes and time; (5) other tools: patient-reported outcome measurement information system, BREAST-Q, and Tracking Operations and Outcomes for Plastic Surgeons; and (6) cost-effectiveness analysis. We use breast hypertrophy requiring breast reduction as an example throughout this review as a representative plastic surgical condition with multiple treatments available. *(Plast Reconstr Surg Glob Open 2014;2:e189; doi: 10.1097/GOX.0000000000000104; Published online 29 July 2014.)*

Plastic surgeons have a substantial variation in surgical practice for similar diagnoses and conditions. For example, women with breast hypertrophy are offered breast reduction surgery with over half a dozen different pedicles and incision types depending on the consultant surgeon and patient preference. This difference in practice is not limited to the health state/diagnosis, borders, race, ethics, or health care policy. Indeed, even within the same institution, patients with the same condition are treated differently with respect to medical and surgical practice. Whose technique is "superior"? Which patient is receiving "better care"? Does the lack of uniformity in surgical practice indicate that all techniques are equal for the care of one condition in different patients? Or does it mean that there is not enough evidence to prove which procedure is "superior"? Outcomes research helps answer such questions by providing the relation between clinical care and their end results.[1–3] As Clancy and Eisenberg[4] outlined, outcomes research help measure the end results of health care.

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