



Recognizing Disparities in Breast Cancer Patient-Reported Outcome Measures

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Patient-reported outcome measures (PROMs) have become increasingly important as cancer care shifts toward a value-based care system.¹ PROMs are regularly being incorporated and reported in clinical trials, although they have not yet been broadly utilized in routine clinical care. In breast cancer, there is interest in using PROMs to improve the quality of clinical care and inform surgical decision-making. For example, although many young women with breast cancer choose bilateral mastectomy, BREAST-Q (a validated breast-specific PROM) scores show highest satisfaction with breasts and psychosocial and sexual well-being in young patients who underwent breast-conserving therapy.² Incorporating these data into decision-making conversations may help to decrease rates of contralateral prophylactic mastectomy in unilateral breast cancer.

Breast cancer disparities by race, ethnicity, socioeconomic status, and age are multifactorial and lead to differences in breast cancer outcomes with black women, those of lower socioeconomic status, and older women having higher breast cancer mortality rates.^{3,4} As PROMs become increasingly utilized, it is important to make sure we are capturing representative populations of women to generalize quality-of-life outcomes. Patients of minority race and older patients are significantly underrepresented in overall cancer clinical trials and enrollment, and although increased attention and effort is focused on expanding the

diversity of trial participation and enrollment, patients of black race and older patients continue to have representation in trials far below that of the incidence of disease.^{5,6} As such, PROMs obtained from clinical trials are likely not as diverse as PROMs obtained from implementation into routine care, which may capture a broader population of patients.

In this issue of *Annals of Surgical Oncology*, Dr. Srour and colleagues report their institutional experience utilizing two PROMs, the BREAST-Q and a Recovery Tracker, in clinical practice at Memorial Sloan Kettering Cancer Center.⁷ PROMs were sent to 6,374 consecutive patients having breast surgery via the electronic health record. The response rate was 89% for response to either PROM (92% for BREAST-Q and 82% for Recovery Tracker). Comparison of patients who responded and did not respond to PROMs found nonresponders to be significantly older, non-English speaking, of Hispanic ethnicity, and of black race. On multivariable analysis of response to either PROM, age ≥ 70 years was associated with 46% decreased odds of response, black race with a 40% decrease, Spanish as a preferred language with a 63% decrease, and another non-English preferred language with a 44% decrease.

Notable about this work is that it demonstrates success of PROMs implementation in routine clinical care, and this one of the first and largest publications to detail this experience. The high level of patient engagement is admirable and encouraging for other institutions hoping to widely incorporate PROMs. The authors are to be congratulated for recognizing the need to evaluate the characteristics of patients who did not engage with PROMs. Many studies examining the implementation of surgical PROMs do not focus on understanding the

nonresponders.⁸ However, the importance of understanding which groups are not responding to PROMs is fundamental to optimizing implementation strategies.

The authors have identified disparities in those patients who are not engaging with PROMs to primarily include older women, black patients, and non-English speakers. Proposed strategies to improve response rates include translating PROMs into different languages, providing in-clinic support to help patients fill out electronic-based PROMs, and preoperative education about the importance and utility of PROMs. Use of novel technology-based health applications as a means to roll out PROMs as part of routine clinical care may facilitate use and can provide an agile platform for quickly testing both implementation and uptake across patient groups.⁹ The efficacy of interventions intended to increase engagement in minority group populations also may be tested by using such platforms.

As institutions increase implementation and utilization of PROMs as part of clinical care, it is necessary to establish reference values for these PROMs to provide clinical context for individual and group patient outcomes. What is considered important to patients undergoing cancer treatment may differ in underrepresented patient groups. As such, it is imperative to understand and compare PROMs as well as clinical outcomes in diverse populations to ensure we are providing quality and equitable care for all patients. Furthermore, establishing reference values in underrepresented populations is important to evolve our understanding of PROMs across patient groups.

PROMs add important value to cancer care, enabling understanding of what meaningful outcomes are as experienced by patients. The power of the data from PROMs is being used to change the way care is delivered and experienced. It is of critical importance to engage a diverse population, including diverse age groups, preferred languages, and racial groups, to ensure that data can be used in a meaningful way to evaluate outcomes and improve quality of care for all patients.

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