





Evaluation of Visual Displays to Share Quality of Life Changes with Breast Cancer Patients

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Background

For early-stage breast cancer, patients have equivalent oncologic outcomes for mastectomy and lumpectomy (BCT). However, patients differ in

-  Psychosocial Well Being
-  Physical Well Being
-  Breast Satisfaction
-  Sexual Well Being

Using patient reported outcomes (PROs) on quality of life to counsel patients on surgery choice is not well understood.

Aim: to assess how patients interpret PRO displays for long-term surgical outcome

Methods

Breast cancer survivors reviewed six PRO displays from patients receiving BCT and ranked displays in order of most to least helpful and provided free response feedback regarding their choices.

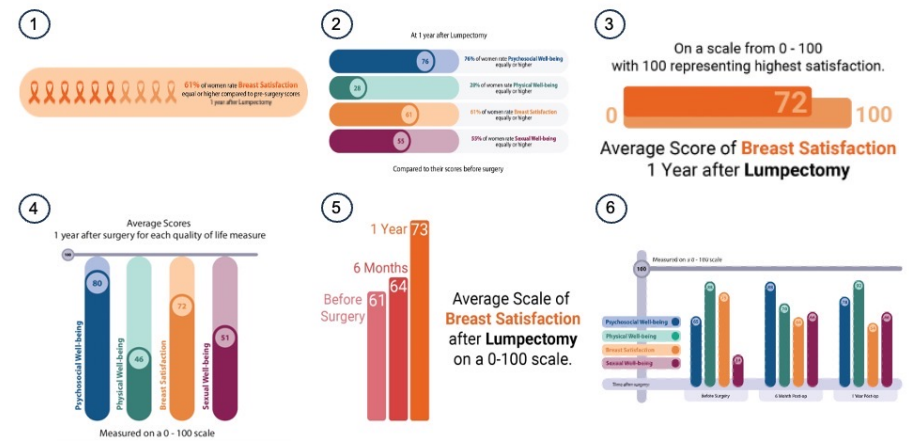


Figure 1: PRO displays to be ranked by patient preference
Statistical Analyses: one way ANOVA and multiple regression models

Patients prefer simple PRO displays that track quality of life changes over time

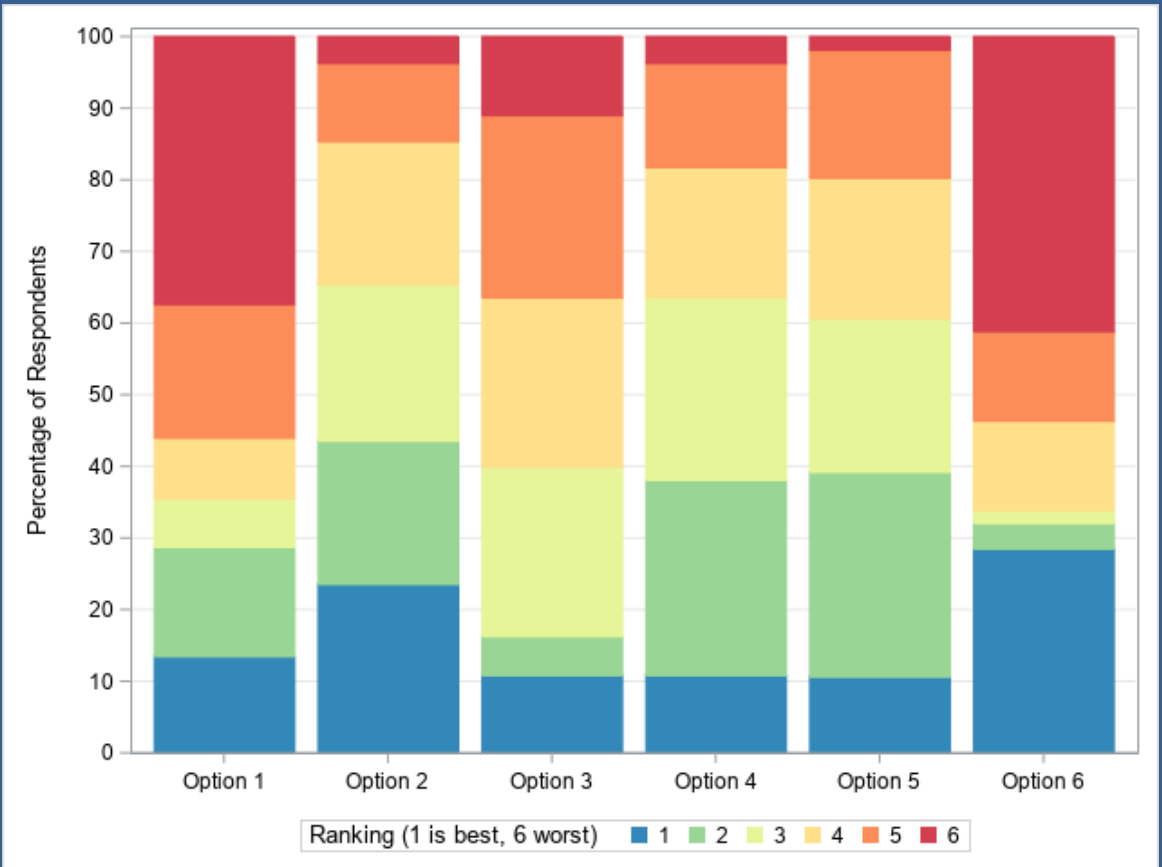
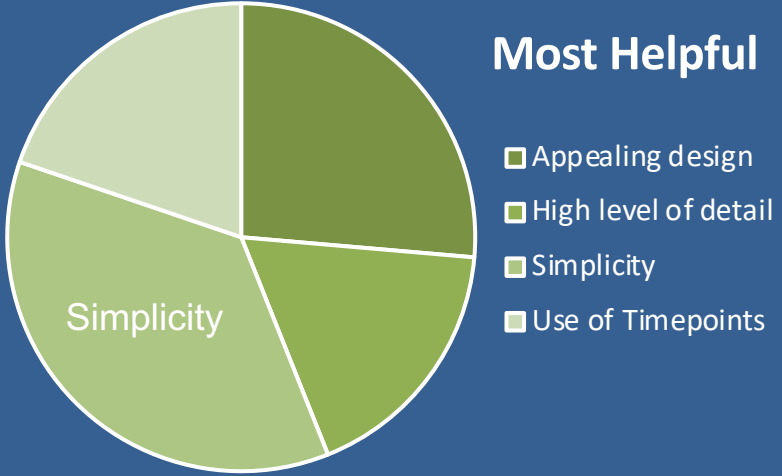




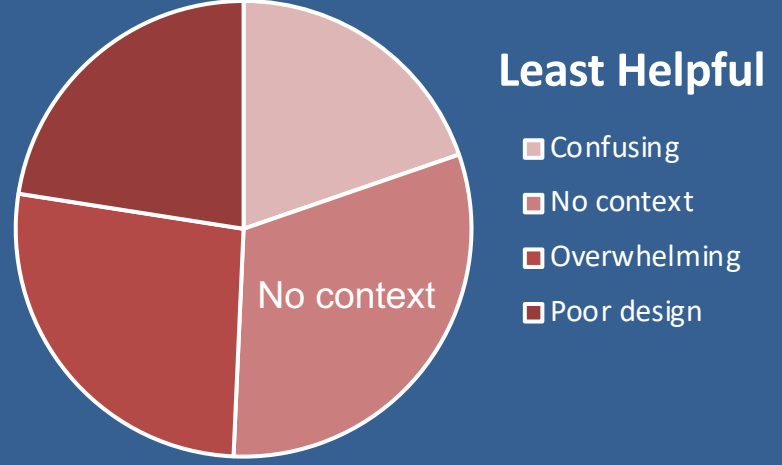


Figure 2. PRO display rankings by breast cancer patients (1=Best, 6=Worst)



Most Helpful

-  Appealing design
-  High level of detail
-  Simplicity
-  Use of Timepoints



Least Helpful





-  Confusing
-  No context
-  Overwhelming
-  Poor design

Figure 3. Qualitative Data of theme analysis via Dedoose

Results

Table 1. Demographics of Respondents

Social/Clinical Factor	Overall % (N) n=35
Age >55	51% (25)
Education: Bachelor's or higher	79.2% (38)
Median household income in ZIP:	
Less than \$50,000	53.5% (23)
Relationship status: married, partnered	71.4% (35)
Stage II+	35.4% (17)
Mastectomy	57.1% (28)
Axillary surgery	93.9% (46)
Reconstruction	57.1% (28)
Neoadjuvant chemotherapy	10.2% (5)
Adjuvant chemotherapy	34.7% (17)
Adjuvant radiation	49.0% (24)
Endocrine therapy	89.8% (44)

- Of 388 eligible patients, 70 completed data display survey (18%)
- One way ANOVA shows differences between figures, $p = 0.0001$. Options 2, 4, and 5 are ranked best and 1 and 6 are ranked worst; differences are significant between all best and worst options (Figure 2, left)
- Common themes for most helpful displays included clarity and tracking changes over time. Least helpful displays were busy or had no reference measurement (Figure 3, left)
- Ranking and theme did not significantly relate to any social or clinical variable

Conclusions

Initial results suggest that patients prefer simple PRO changes that track quality of life changes over time. No single figure is sufficient to convey quality of life changes.



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