Use of Patient Informational Media and Treatment Knowledge Among Implanted Defibrillator Patients: Do Age, Race, or Education Have an Effect?
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Introduction/objectives:
Implanted defibrillators (ICDs) are a potentially life-prolonging therapy1-3 with known risks to quality of life (QOL).4,5 Despite a variety of informational media intended to educate patients about treatment, a number of knowledge deficits persist.6,7 Patient information-seeking preferences have been described in limited ways8, but no literature to date addresses differences in treatment knowledge and medical information-seeking by demographic group.

In this study, we sought to assess whether information-seeking behavior or treatment knowledge differs between ICD patients grouped by age, race, or educational background.

Methods:
Data were gathered from 205 defibrillator patients. Participants completed newly-created measures of ICD knowledge and self-reported use of ICD-specific informational media (conversations with healthcare providers, paper patient information, online patient information, and in-person meetings).

Three separate ANOVAs were used to identify differential informational media use along demographic lines (with the Bonferroni correction for multiple comparisons). Age quartiles, education, and race served as IVs, with scores on informational media factors acting as DVs.

Results:
Informational media use did not differ by education or race. Two mean effects for age quartile within the sample were observed. Use of online resources was significantly higher for both the youngest (age ≤52.5, p=.015) and second youngest (age 52.6–64.0, p=.047) quartiles compared to the oldest (age ≥71.5). Out of 14 possible sources of information assessed, the youngest quartile reported having used 2.23 more mediums (M=7.33, sd=2.76) than the oldest quartile to learn about treatment (M=5.10, sd=2.77; t(100)=4.08, p=.001). With respect to treatment knowledge, a weak negative relationship with patient age was observed (r=-.179, p=.01). To further examine this relationship, treatment knowledge scores for the highest and lowest age quartile subsamples were compared, revealing a main effect for age quartile, with the youngest quartile scoring significantly higher (M=6.94, sd=1.80; on a scale of 0-9) than the oldest quartile (M=6.02, sd=1.70).
Discussion/Implications:

Older patients reported using fewer forms of informational media than their younger counterparts, reported getting less information from online sources, and scored lower on a treatment knowledge measure. Differences in knowledge may be attributable to a broader information acquisition process by younger ICD patients, reflecting changing cognitive ability, use of more media forms due to a generational ease with technology, or a definitional shift in cultural expectations of patients. Given that older ICD patients carry the highest likelihood of experiencing multiple comorbidities requiring conscientious management, any potential inefficacy of patient educational practice, including information acquisition outside the medical consultation, requires greater attention and improvement.