Development of an Internet Intervention for Sexual Health after Breast Cancer: Preliminary Research and Planned Factorial Trial

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Although 3 in 4 breast cancer survivors report significant sexual concerns after treatment, few survivors receive support for these concerns. Delivering sexual health care to breast cancer survivors via the Internet could overcome many of the barriers inherent to in-person interactions, including limited availability of resources and stigma. While telehealth interventions for breast cancer survivors' sexual health have been previously developed and tested, there are limitations to this prior work. First, time burden remains a leading barrier to enrollment and engagement. Second, prior trial designs have not permitted the determination of which intervention components work best for which survivors, and this knowledge is crucial to refine and personalize sexual health care for survivors. To address these limitations, our team will use the Multiphase Optimization Strategy (MOST) methodological framework to achieve the following aims: (1) develop an Internet intervention for breast cancer-related sexual health that is optimized for greatest impact; and (2) determine how intervention components work (i.e., mediators) and for whom they work best (i.e., moderators).

Our prior qualitative research with breast cancer survivors (N=29), intimate partners of breast cancer survivors (N=12), and breast oncology clinicians (N=8) identified four areas as critical to address breast cancer survivors' sexual concerns: psychoeducation about sexual health after cancer; communication skills training for discussing concerns with health care teams; communication skills training for discussing concerns with a partner; and physical intimacy promotion. Based on this information, survivorship care guidelines, and our team's prior interventions for sexual health after cancer, we are currently developing four fully-automated, Internet-delivered intervention components. Iterative user testing with breast cancer survivors (N=7) is under way to improve acceptability and usability of the four components. After the components have been finalized, we will assess their performance in a highly efficient factorial trial (2^4), in which participants will be randomized to receive one of 16 combinations of the four intervention components. Recruitment for the trial (target N=320 partnered female breast cancer survivors with sexual morbidity) via the Wake Forest NCI Community Oncology Research Program (NCORP) Research Base is expected to begin March 2024.

Findings from this trial will accelerate the development of more effective sexual health interventions for breast cancer survivors by determining how intervention components work and for whom components work best. By identifying the combination of intervention components likely to provide breast cancer survivors the greatest sexual health benefit for the least burden, this study will result in the first Internet intervention optimized for maximum impact for the undertreated, prevalent, and distressing problem of breast cancer-related sexual morbidity.