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Title: Using the power of design to more effectively communicate with Metastatic Breast Cancer patients, the "Dandelion Toolkit"

Authors: **Ellsworth Beaumont, Corrine, PhD**¹; Crawford-Gray, Katherine, MBA, MSc² ¹WorldwideBreastCancer.com; ²Metastatic Breast Cancer Alliance

Background: Metastatic breast cancer (MBC) patients receive an overwhelming amount of information at the time of diagnosis, with most of the information transferred through oral conversations and abstract medical terminology that's difficult for patients to understand. Oral conversations have a low accuracy memory recall of 14% (Houts et al, 2001). However, when visuals are integrated into discussions, the accurate memory recall of conversations has a median of 80% (Kessels, 2003). We ask, "How can nurse navigators help patients feel informed, empowered and more easily communicate with their healthcare team on a more equal level through using a visual toolkit to guide the discussions?"

This paper describes both the process and outcomes of developing a visual conversation aid, the "Dandelion Toolkit." While several resources (Simonian et al, 2001; NHS, 2008; Szebeko, 2005; Breslin et al, 2008) offer advice and guidelines on how to develop materials for specific audiences, a holistic, patient-centered defined framework could help nurse navigators structure the development and testing of materials.

Objectives: i) Develop a visual aid for helping metastatic breast cancer (MBC) patients and health care providers (HCPs) improve their communication during initial diagnosis and treatment discussions; ii) Design a set of visual tools to communicate in a time-effective way, and appeal to a wide demographic of metastatic breast cancer patients of various literacy levels; and (iii) Increase patient engagement in treatment decisions despite emotional distress.

Toolkit Development Methods: The toolkit was developed following the "U.S.E.R." (User, System, Establish, Realize) design thinking framework (Beaumont, 2011). This patient-centered, mixed-method approach used action research, iterative prototyping, interviews and co-creative methods to identify problems and develop solutions within the health system, working with >80 MBC patients and HCPs. [poster will visualize each stage and list research methods used for each stage in detail]

Results: The U.S.E.R. design process offered an organized and holistic framework to involve both MBC patients and HCPs in the development of a communication tool. User testing was done throughout the development, which resulted in an evidence-based solution delivered in a short timeframe (2 months). The design outcome was a visual metaphor that visualized the behavior, subtype and treatment options for metastatic cancer. Initial testing of the toolkit in a community cancer clinic revealed it was highly valued by patients and HCPs. HCPs who used the toolkit found the visual approach offered a better method for educating patients as opposed to oral communication alone; it aided in simplifying treatment options, managing patient anxiety and navigating difficult topics. Patients found that the metaphor helped them to understand more comprehensively what a metastatic diagnosis meant and the spectrum of treatments; the toolkit helped them navigate conversations with other health care professionals and family members, and to feel an improved sense of control.

Conclusions: Initial testing demonstrated the effectiveness of the toolkit developed with the U.S.E.R. design thinking framework, for both HCPs and MBC patients. To more fully investigate the toolkit, it is now being used in clinical trials across seven sites nationwide and internationally. This will provide data to better understand the toolkit's impact on patient knowledge, HCP effectiveness and best practices for integrating visuals into discussions for improved patient experience.

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