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Systematic Review of Video Education in Underrepresented Minority Cancer Survivors

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Abstract

Background: Underrepresented minority (URM) cancer survivors experience disparities in mortality and quality of life, compared to non-Hispanic Whites. Disparities are associated with poor social determinants of health, enhanced by mistrust of the health care system. Trust can be facilitated by provider-patient racial/ethnic concordance, yet URM survivors rarely experience concordance. Effective health communication is needed for this vulnerable population.

Objective: To systematically review evidence on the composition and utility of health education videos among adult URM survivors.

Methods: Literature searches were conducted in Web of Science, Embase, PubMed, Cochrane, PsycInfo, and CINAHL databases. Articles that included adult URM cancer survivor samples and either described or tested a video intervention aimed to improve health outcomes were included. Two researchers independently screened articles for inclusion, quality appraisal and abstracted and synthesized relevant data to identify themes.

Results: Eight articles, detailing seven independent studies met inclusion criteria. Quality appraisal of the included studies was fair to good. Six themes were identified: 1) video development with stakeholders; 2) focus on designing culturally appropriate videos; 3) in-clinic video delivery; 4) video intervention effects; 5) provider and URM survivors support video interventions; and 6) building trust through personal stories.

Conclusions: Video interventions are well-received by URMs and improve outcomes, yet are underutilized. More rigorous studies are warranted to develop best practices for video development and application.

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Implications for Practice: Videos serve as an easy, effective tool to achieve favorable outcomes in the care of URM survivors.

INTRODUCTION

There are approximately 15.5 million cancer survivors in the United States.¹ Among these survivors, underrepresented minority (URM) populations experience cancer disparities in mortality, quality of life, and cancer-related co-morbidities. For example, African Americans and American-Indian/Alaska-Natives have the highest rates of cancer related mortality, as compared to other racial/ethnic groups.² Cancer disparities are associated with social determinants of health including low socioeconomic status and access to care,^{1,3} along with mistrust of the health care system.⁴ A critical step that nurses can take to address cancer disparities is to provide comprehensive, culturally appropriate, targeted health care to URM cancer survivors.

After a cancer diagnosis, many survivors are left reeling with challenges of life after cancer. Commonly referred to as health-related quality of life concerns, survivors navigate physical, psychological, social, and spiritual concerns.^{5,6} Cancer survivors have frequently reported unmet supportive care needs.^{7–11} For example, McRoy, Rastegar-Mojarad, Wang, Ruddy, Haddad, Liu⁸ found that written documents distributed to breast cancer survivors only addressed about one-third of their questions. A particular deficit in knowledge and increased need for information has been identified for post-treatment survivors, as compared to those undergoing active treatment.¹² Many survivors have found it valuable to apply pearls of wisdom gained from lived experiences of others and quality communication with healthcare team members.^{13,14} Without high quality communication with providers, survivors may find themselves with unmet needs which in turn can lead to declines in satisfaction with care, health, and health-related quality of life.^{15,16}

Health communication research is focused on identifying strategies to impact peoples' decisions and actions, to ultimately improve health. A branch of health communication centers on health education. The World Health Organization defines *health education* as "any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes."¹⁷ Health communication may be delivered through many mediums including verbal, written, and technology-based strategies.

Among URM cancer survivors, health communication is especially important. As mentioned, these URM often face additional struggles compared to their non-Hispanic White counterparts. Traditionally, URM report less access to and knowledge of available survivorship resources, poorer health literacy, and general mistrust of the healthcare system. Trust is established through effective communication, which can be facilitated by provider-patient racial/ethnic concordance.^{4,18} URM survivors rarely experience provider-patient racial/ethnic concordance due to the shortage of URM providers.¹⁹ Thus, an additional barrier to effective communication exists among URM survivors. For immigrant URM, the barriers of learning a new healthcare system while potentially speaking English as a non-primary language can be distressing. Unfortunately, healthcare providers sometimes feel

ill-equipped and lack communicative expertise to address potentially sensitive concerns.²⁰ One strategy to optimize patient-provider communication with URM survivors has been the use of videos. By leveraging videos, nurses can share messages from individuals of various URM communities, such as those who speak the same language, or those who are racially/ethnically concordant.

URM cancer survivors have been engaged to create video interventions, and video interventions have been used to provide health communication and improve health knowledge and outcomes among this population. However, a synthesis of this research is needed to identify how to best create and use video interventions among URM cancer survivors. Thus, the purpose of this review is to systematically identify and synthesize the evidence on the composition and utility of health education videos among adult URM cancer survivors. Specifically, this review was guided by two PICO questions: 1) Among URM cancer survivors, what are the characteristics of video interventions created to improve health knowledge or outcomes? and 2) Among URM cancer survivors, what health and knowledge related outcomes of video interventions have been tested?

METHODS

This research was conducted according to PRISMA guidelines.²¹ See the appendix for PRISMA checklist. The study protocol is detailed below and is not published or registered elsewhere.

Search Strategy

Computerized searches were conducted by a medical librarian on October 4, 2018. Web of Science, Embase, PubMed, Cochrane, PsycInfo, and CINAHL databases were searched to capture relevant literature from a variety of disciplines. The literature search included Medical Subject Headings (MeSH), Emtree headings, and related text and keyword searches when appropriate, focusing on terms used to describe (a) racial/ethnic minority groups, (b) cancer survivors, and (c) video recordings. The exact search strategy for PubMed is detailed in Table 1. To capture all relevant research, no date restrictions were set. There were three criteria for inclusion. First, study participants had to be cancer survivors as defined by someone living with a cancer diagnosis, regardless of treatment status²². Thus, studies that included survivors who had completed, who were currently undergoing, and who were awaiting treatment were included. Second, studies had to include a URM sample. In cases where the entire sample was not URM, and results were presented separately for URM participants, studies were included; if results were only aggregate the study was excluded. Third, studies were included that described the development or testing of a video intervention that aimed to improve health knowledge or health outcomes. All study designs (i.e., randomized trials, quasi-experimental and descriptive) were included. When the video was a portion of a multicomponent intervention and the study included findings about the video alone, they were included. Excluded studies were those that (1) were not published in English, (2) used videos in mass media campaigns or telemedicine interventions (3) were conducted outside of the United States, or (4) had a study sample of caregivers.

Article Selection

Search results were downloaded into Covidence, an online systematic review screening platform,²³ for independent review by two researchers (TSN and RH). Articles that did not meet exclusion criteria were excluded. Articles that met inclusion criteria moved on for full text review, that was again conducted independently by two researchers (TSN and RH). During the full-review, reference lists were screened to identify relevant articles for inclusion. At each stage discrepancies between reviewers were resolved through discussion.

Data Analyses

Following the Matrix method,²⁴ data was abstracted from included articles and placed into matrices for evaluation, independently by two researchers (TSN and RH). Again, discrepancies were resolved through discussion. Data was extracted and placed into matrices with category headings that consisted of: study characteristics, sample characteristics, intervention development process, video characteristics, outcomes reported, and results. Next, meaning units were identified across categories to generate themes that recurred with regularity.²⁵ Themes were discussed and generated through the lens of this research team, that includes a health sciences librarian who specializes in cancer information and systematic searching and three nurse scientists, who collectively have nearly 30 years of oncology nursing experience. One is a nurse practitioner, one is an Oncology Certified Nurse, and one is a behavioral nurse scientist focused on designing and testing culturally-targeted interventions.

Bias Assessment

Articles selected for inclusion were then critically appraised for strength of evidence using the Joanna Briggs Institute criteria for qualitative research²⁶ and the National Heart, Lung and Blood Institute (NHLBI) Study Quality Assessment Tools criteria for quantitative research.²⁷ The Joanna Briggs criteria consists of ten questions that guide a researcher to determine if further information is needed, or if a qualitative study should be included or excluded in a review. The NHLBI tools consist of a series of eight to ten questions that guide a researcher to score the quality rating of a quantitative study as good, fair, or poor. The appropriate respective tool was used to assess bias of each study included in this review. This process was done independently by two researchers (TSN and RH), who resolved discrepancies through discussion.

RESULTS

Search Results

The initial search resulted in 3,553 articles. De-duplication removed 1,040 articles, leaving 2,513 articles for titles and abstracts for screening. Ninety-seven articles met criteria for full text review. Reasons for exclusion at this stage included (a) was a conference abstract ($n = 35$); (b) video outcome was clinical trial enrollment, not health knowledge or outcomes ($n = 17$); (c) no video intervention ($n = 16$); (d) wrong study sample ($n = 10$); (e) wrong study outcomes ($n = 4$); (f) duplicate ($n = 2$); and (g) not in English ($n = 1$). Ultimately, eight manuscripts, including seven independent studies, met the criteria for inclusion in this

review, as detailed in the Figure. Publications dates of included studies ranged from 1982 to 2017.

Study Sample Characteristics

Across all studies, the total samples size of this synthesis included 352 cancer survivors. The mean age of participants across the seven studies was 54 (SD = 2, range 50–57). Studies identified participants as African American or Black, Hispanic, and American Indian or Navajo. Four studies included both male and females and three included only females. Most (n = 5) included a sample with a variety of cancer diagnoses and two included only breast cancer survivors. Location of these studies were geographically dispersed including Texas, Arizona, Illinois, Pennsylvania and Montana. The quality of all qualitative studies was adequate for inclusion in this review. Item level risk of bias assessments for qualitative studies are in Supplemental Table 1. The quality of all quantitative studies was rated as either fair or good. Item level risk of bias assessments for quantitative studies are in Supplemental Table 2. See Table 2 for a summary and bias score of included studies.

Themes

Six main themes emerged: video development with stakeholders, focus on designing culturally appropriate videos, in-clinic video delivery, video intervention effects, URM survivors and providers in favor of video interventions, and building trust through personal stories.

Theme 1. Video development with stakeholders

The first major finding that emerged was the role of the stakeholder in developing videos. The various stakeholders included cancer survivors, caregivers, health educators and providers. Their input was elicited through focus groups and interviews which were facilitated with scripted questions. In some instances, input was gathered with cognitive interviews as participants read scripts written by providers and reviewed video libraries of cancer stories. Feedback from stakeholders often determined the topics to be included in the video intervention. The selected topics included information about treatment, side effects, pain, communication with providers, coping, support, and dispelling myths. For example, in many American Indian languages, *cancer* translates into “a sore that does not heal.” Thus, efforts were made to dispel myths by hosting focus groups to understand beliefs and then developing videos of survivor stories to be used as part of a toolkit to educate American Indians about cancer.²⁸ Another intervention contained several short videos of narrative messages (i.e., personal stories) from American breast cancer survivors.²⁹ By working with URM communities to develop videos, nurses can increase the likelihood that the needs of URM are appropriately represented and addressed.

Theme 2. Focus on designing culturally appropriate videos

Researchers thoughtfully included or intended to include components to make the videos culturally appropriate. Barring feedback from stakeholders, strategies included developing video content and images that could be easily understood by their target audiences. Essential culturally appropriate components included appropriate use of language and relatable stories

from target URM survivors. Videos developed featured narrators speaking the language and dialect of the intended audience, crafted stories that gave instructional detail, and targeted images of individuals who were members of the intended audience offering racial/ethnic concordance along with age and gender concordance. For example, in one study, Hispanic cancer survivors modeled how to discuss pain with a provider.³⁰ Two studies included videos that were created in Spanish.^{30,31} Another study noted that there are over 500 different American Indian tribes, many of which have different languages, in which cancer translates to “a sore that does not heal”.²⁸ While this study created materials in English, there was great attention placed on the use of English language and how it may translate to American Indian languages. Finally, one study created a video in Navajo language.³²

Theme 3. In-clinic video delivery

The videos were all delivered in clinic settings, either on a TV screen or tablet. Completed videos varied from 8–20 minutes. Videos were sometimes viewed with a family member, friend or a roommate. Two of the studies included a complimentary conversation with a provider. In one, a nurse met with the survivor after video to review the content.³⁰ In the other, the video was a reinforcement of basic information after a surgical oncologist visit.³¹ Delivery of content via video is another opportunity to provide education and reinforce cancer information for URM survivors.

Theme 4. Video intervention effects

Stakeholder evaluation of such videos identified favorable acceptability and improved knowledge, influenced behavior, and reduced cancer-related morbidity. The videos had positive effects on outcomes of pain, knowledge, treatment adherence, communication and the correlation between patient reported pain and physician estimated pain. Armed with knowledge, survivors reported being more likely to engage in the decision-making process, being more likely to communicate with healthcare providers about their health given their feelings of comprehension.^{32–34} Patients who watched videos about communicating pain with physicians, had physicians who more accurately reported their pain at three to four weeks post-intervention, compared to control arm participants for whom physicians underestimated pain ($p < 0.05$). However, these effects were not sustained at six to seven weeks post-intervention.³⁰ Importantly, in studies comparing groups, African Americans had less knowledge about common cancer concerns than non-Hispanic Whites; yet, there was no statistical difference in knowledge post watching the video.³⁴ Thus, African Americans may benefit from videos more than non-Hispanic Whites. However, across studies, no effects on perceived pain control or functional status were noted. Finally, across studies, interventions had differing effects on quality of life outcomes, in which one intervention had no effect on quality of life,³⁰ and in another, participants expressed beliefs that the intervention could improve quality of life.²⁹

Theme 5. URM survivors and providers in favor of video interventions

Findings revealed that videos are a favorable intervention mode, as both survivors and providers would recommend them. Two explanations emerged that support reasons video interventions would be recommended. First, participants thought that videos were a good way to review information. For example, in one study a participant said:

“when you’re waiting for the oncologist, where sometimes they take up to half an hour, 20 min, an hour [I could be] sitting there watching [a] program with information about what oncology is, How do you overcome? What do you feel? And as far as chemotherapy... you sit for hours.”³³

Participants also expressed that while many have the devices necessary to use apps and websites, they do not use them. For example, one study detailed that while most of the sample, 77%, had computer access, only 47% knew how to use the computer, and while most had smart phones, they chose not to use all its features.³³ One participant in this study stated, “I don’t have a computer, but I do have a phone without service, but has Facebook once in a while.”

Theme 6. Building trust through personal stories

A final valuable finding from this synthesis is that the survivors enjoyed the videos most when they included personal stories. Personal stories were meant to be both informative and motivational, in efforts to increase the potential efficacy for health education uptake. Both survivors and healthcare providers valued realistic portrayal of survivorship. Because stakeholders identified with the narrators within the videos, they found the videos to be trustworthy.

DISCUSSION

Overall, the findings of this review indicate that video interventions that are culturally targeted and contain messages from racially/ethnically matched individuals are well received, easily delivered and are promising to impact health related outcomes among URM cancer survivors.

The approaches to create video interventions included in this review were culturally targeted and included various stakeholders. Indeed, interventions are more effective when they are culturally relevant.³⁵ Engaging the targeted population to create and narrate videos, increases the likelihood that relevant population-specific needs are addressed.¹³ By showing the videos in clinical oncology settings, patients, caregivers, and families have the opportunity to have video content reinforced and questions answered by nurses.

Videos that contained narrative messages (i.e., a personal story from an individual who has similar characteristics to the intended recipient of the story) from URM survivors seemed to be particularly powerful. According to narrative theory, stories from similar individuals can be powerful and effective because the recipient relates to the narrator and believes they may have a similar experience.^{36–38} Written narrative messages that include photographs of the story teller have been well received and have had positive impacts on health beliefs and physical activity, among African American and Non-Hispanic White cancer survivors.^{39–41} Research supports that narrative messages may be effective among African American cancer survivors when they have positive thoughts about and view the narrators as being similar to themselves.³⁸

Compared to Non-Hispanic Whites, URM cancer survivors report less access to and knowledge of available resources. Women with fewer resources, less education, and lower

income report insufficient guidance and/or skills to maximize health and QOL.⁴² Better communication and increased knowledge may contribute to decreasing cancer disparities experienced by URM survivors. This review provides support that video interventions are a promising strategy to create trust and promote health communication in cancer care.

However, to comprehensively address cancer disparities, a multitude of strategies need to be employed. The social determinants of health encompass both up and downstream factors that ultimately impact health outcomes.⁴³ Cultural competence, bias awareness, and bias training are critical to increase trust and communication in URM communities.⁴⁴ Video interventions may be helpful to improve communication and well received by URM cancer survivors; yet, they are not likely to be effective without continued efforts to address and break down factors that contribute to disparities.

Limitations

This review is not without limitations. Despite setting no date restrictions, we identified only seven independent studies for inclusion in this review. All included studies were quality appraised as fair to good. Scores were most often lowered due to lack of control groups, no randomization or small sample sizes. Strengths of this review were its rigor and systematic approach that applied PRISMA guidelines. Further, this review identified articles describing participatory approaches and iterative processes to co-develop the video interventions.

Future research should assess how nurses viewing culturally-targeted videos may educate them on the cultural needs of their patients and impact the communication and care they deliver. Future research should develop and test targeted health education materials for adult URM survivor populations and providers. These interventions should be tested alongside additional strategies to decrease cancer disparities. Video interventions are an innovative and promising approach to achieve increased racial/ethnic concordance in health communication.

CONCLUSIONS

Our systematic review highlights how video interventions, especially those containing narrative stories from racial/ethnic concordant survivors, are well received by African American, American Indian and Hispanic cancer survivors. Such interventions are promising to improve pain, knowledge, treatment adherence and communication with providers, among these URM cancer survivors. Finally, videos are easily delivered as an intervention approach. More rigorous studies are warranted to understand best practices of video development and use for URM cancer survivors. Harnessing videos is promising to deliver effective education to URM, as a critical first step in decreasing cancer disparities.

IMPLICATIONS FOR PRACTICE

Videos can serve as an easy, effective tool to achieve favorable outcomes in the care of URM survivors. Applying video education can increase survivor's knowledge and support informed-decision making. Additionally, by nurses viewing culturally-targeted videos, they may gain insight into the cultural needs of their patients, thereby allowing them to follow-up

on common concerns and assess for other concerns in an appropriate manner. Finally, by using videos to supplement patient teaching, nurses can increase the amount of information they provide to patients, while continuing to complete additional nursing tasks in busy clinic settings. This review provides evidence that culturally-targeted videos are a valuable educational tool for nurses to use when educating URM cancer survivors.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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References

1. American Cancer Society. Cancer Treatment & Survivorship Facts & Figures 2016–2017. In. Atlanta, GA: American Cancer Society; 2016.
2. Cancer US Statistics Working Group. United States Cancer Statistics: 1999–2014 Incidence and Mortality Web-based Report. In. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2017.
3. O’Keefe EB, Meltzer JP, Bethea TN. Health disparities and cancer: racial disparities in cancer mortality in the United States, 2000–2010. *Frontiers in public health*. 2015;3:51. [PubMed: 25932459]
4. Dovidio JF, Penner LA, Albrecht TL, Norton WE, Gaertner SL, Shelton JN. Disparities and distrust: the implications of psychological processes for understanding racial disparities in health and health care. *Soc Sci Med*. 2008;67(3):478–486. [PubMed: 18508171]
5. Ashing-Giwa KT. The contextual model of HRQoL: a paradigm for expanding the HRQoL framework. *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation*. 2005;14(2):297–307.
6. Dow KH, Ferrell BR, Leigh S, Ly J, Gulasekaram P. An evaluation of the quality of life among long-term survivors of breast cancer. *Breast cancer research and treatment*. 1996;39(3):261–273. [PubMed: 8877006]
7. Napoles AM, Ortiz C, Santoyo-Olsson J, et al. Post-Treatment Survivorship Care Needs of Spanish-speaking Latinas with Breast Cancer. *The Journal of community and supportive oncology*. 2017;15(1):20–27. [PubMed: 28944260]
8. McRoy S, Rastegar-Mojarad M, Wang Y, Ruddy KJ, Haddad TC, Liu H. Assessing Unmet Information Needs of Breast Cancer Survivors: Exploratory Study of Online Health Forums Using Text Classification and Retrieval. *JMIR cancer*. 2018;4(1):e10. [PubMed: 29764801]
9. Badr H, Lipnick D, Gupta V, Miles B. Survivorship Challenges and Information Needs after Radiotherapy for Oral Cancer. *Journal of cancer education : the official journal of the American Association for Cancer Education*. 2017;32(4):799–807. [PubMed: 27193414]
10. Le MN, Nguyen GT, Pan Z, et al. Unmet Needs of Asian American and Pacific Islander Cancer Survivors. *Journal of cancer education : the official journal of the American Association for Cancer Education*. 2017;32(2):374–381. [PubMed: 26621507]
11. Beckjord EB, Arora NK, McLaughlin W, Oakley-Girvan I, Hamilton AS, Hesse BW. Health-related information needs in a large and diverse sample of adult cancer survivors: implications for cancer care. *Journal of cancer survivorship : research and practice*. 2008;2(3):179–189. [PubMed: 18792791]
12. Fletcher C, Flight I, Chapman J, Fennell K, Wilson C. The information needs of adult cancer survivors across the cancer continuum: A scoping review. *Patient education and counseling*. 2017;100(3):383–410. [PubMed: 27765377]

13. Nolan TS, Ivankova N, Carson TL, et al. Perceptions of a breast cancer survivorship intervention: Pearls of wisdom from young African American women. *Journal of Adolescent and Young Adult Oncology*. 2018.
14. Yilmaz NG, Schouten BC, Schinkel S, van Weert JCM. Information and participation preferences and needs of non-Western ethnic minority cancer patients and survivors: A systematic review of the literature. *Patient education and counseling*. 2019;102(4):631–650. [PubMed: 30594322]
15. Mayer DK, Nasso SF, Earp JA. Defining cancer survivors, their needs, and perspectives on survivorship health care in the USA. *The Lancet Oncology*. 2017;18(1):e11–e18. [PubMed: 28049573]
16. Institute of Medicine. *From Cancer Patient to Cancer Survivor: Lost in Transition*. The National Academies Press; 2005.
17. Organization WH. Health education. https://www.who.int/topics/health_education/en/. Published 2019. Accessed April 30, 2019.
18. Johnson RL, Roter D, Powe NR, Cooper LA. Patient race/ethnicity and quality of patient-physician communication during medical visits. *American journal of public health*. 2004;94(12):2084–2090. [PubMed: 15569958]
19. American Society of Clinical Oncology. *The State of Cancer Care in America, 2017: A Report by the American Society of Clinical Oncology*. *Journal of oncology practice / American Society of Clinical Oncology*. 2017;13(4):e353–e394.
20. Underhill ML, Sheldon LK, Halpenny B, Berry DL. Communication about symptoms and quality of life issues in patients with cancer: provider perceptions. *Journal of cancer education : the official journal of the American Association for Cancer Education*. 2014;29(4):753–761. [PubMed: 24748096]
21. Moher D, Liberati A, Tetzlaff J, Altman DG, Group P. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Med*. 2009;6(7):e1000097.
22. Denlinger CS, Carlson RW, Are M, et al. Survivorship: introduction and definition. *Clinical practice guidelines in oncology. J Natl Compr Canc Netw*. 2014;12(1):34–45. [PubMed: 24453291]
23. Covidence systematic review software. Veritas Health Innovation Ltd. <https://www.covidence.org/>. Published 2018. Accessed 2018.
24. Garrard J. *Health sciences literature review made easy*. Jones & Bartlett Publishers; 2013.
25. Polit DF, Hungler BP. *Nursing Research. Principles and Methods*. sixth ed. Philadelphia New York, Baltimore: J. B. Lippincott Company; 1999.
26. Lockwood C, Munn Z, Porritt K. Qualitative research synthesis: methodological guidance for systematic reviewers utilizing meta-aggregation. *International journal of evidence-based healthcare*. 2015;13(3):179–187. [PubMed: 26262565]
27. NIH National Heart LaBI. Study quality assessment tools. <https://www.nhlbi.nih.gov/health-pro/guidelines/in-develop/cardiovascular-risk-reduction/tools>. Accessed March 1, 2019.
28. Hodge FS, Itty TL, Cadogan MP, Martinez F. “Weaving balance into life”: Development and cultural adaptation of a cancer symptom management toolkit for Southwest American Indians. *J Cancer Surviv*. 2012;6(2):182–188. [PubMed: 22160662]
29. Perez M, Sefko JA, Ksiazek D, et al. A novel intervention using interactive technology and personal narratives to reduce cancer disparities: African American breast cancer survivor stories. *J Cancer Surviv*. 2014;8(1):21–30. [PubMed: 24030573]
30. Anderson K. Pain Education for Underserved Minority Cancer Patients A Randomized Controlled Trial. *journal of clinical oncology*. 2004;22:4918–4925. [PubMed: 15611506]
31. Bouton M. Implementation of educational video improves patient understanding of basic breast cancer concepts in an undereducated county hospital population. *Journal of surgical oncology*. 2012;105:48–54. [PubMed: 21882193]
32. Sanderson PR, Teufel-Shone NI, Baldwin JA, Sandoval N, Robinson F. Breast cancer education for Navajo women: a pilot study evaluating a culturally relevant video. *J Cancer Educ*. 2010;25(2):217–223. [PubMed: 20111913]

33. Banas JR, Victorson D, Gutierrez S, Cordero E, Guitleman J, Haas N. Developing a Peer-to-Peer mHealth Application to Connect Hispanic Cancer Patients. *J Cancer Educ.* 2017;32(1):158–165. [PubMed: 27364905]
34. Cassileth BR, Heiberger RM, March V, Sutton-Smith K. Effect of Audiovisual Cancer Programs on Patients and Families. *Journal of Medical Education.* 1982;57:54–59. [PubMed: 7054510]
35. Scarinci IC, Johnson RE, Hardy C, Marron J, Partridge EE. Planning and implementation of a participatory evaluation strategy: a viable approach in the evaluation of community-based participatory programs addressing cancer disparities. *Evaluation and program planning.* 2009;32(3):221–228. [PubMed: 19232727]
36. Hinyard LJ, Kreuter MW. Using narrative communication as a tool for health behavior change: a conceptual, theoretical, and empirical overview. *Health Educ Behav.* 2007;34(5):777–792. [PubMed: 17200094]
37. Shaffer VA, Zikmund-Fisher BJ. All stories are not alike: a purpose-, content-, and valence-based taxonomy of patient narratives in decision aids. *Med Decis Making.* 2013;33(1):4–13. [PubMed: 23065418]
38. Kreuter MW, Buskirk TD, Holmes K, et al. What makes cancer survivor stories work? An empirical study among African American women. *J Cancer Surviv.* 2008;2(1):33–44. [PubMed: 18648985]
39. Hirschey R, Kimmick G, Hockenberry M, et al. A randomized phase II trial of MOVING ON: An intervention to increase exercise outcome expectations among breast cancer survivors. *Psycho-Oncology.* 2018;27(10):2450–2457. [PubMed: 30071146]
40. Hirschey R, Kimmick G, Hockenberry M, Shaw R, Pan W, Lipkus I. Protocol of Moving On, a Randomized Controlled Trial to Increase Outcome Expectations and Exercise among Breast Cancer Survivors. *Nursing Open.* 2017(5):101–108.
41. Falzon C, Radcliff R, Cantor A, d'Arripe-Longueville F. Understanding narrative effects in physical activity promotion: the influence of breast cancer survivor testimony on exercise beliefs, self-efficacy, and intention in breast cancer patients. *Support Care Cancer.* 2015;23(3):761–768. [PubMed: 25186211]
42. Royak-Schaler R, Gardner LD, Shardell M, et al. Evidence-based care for breast cancer survivors: communicating the Institute of Medicine Guidelines in medical practice. *Patient Educ Couns.* 2009;77(3):413–420. [PubMed: 19883985]
43. Agurs-Collins T, Persky S, Paskett ED, et al. Designing and Assessing Multilevel Interventions to Improve Minority Health and Reduce Health Disparities. *American journal of public health.* 2019;109(S1):S86–s93. [PubMed: 30699029]
44. Institute of Medicine Committee on U, Eliminating R, Ethnic Disparities in Health C. In: Smedley BD, Stith AY, Nelson AR, eds. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Washington (DC): National Academies Press (US)

Figure.

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:[10.1371/journal.pmed1000097](https://doi.org/10.1371/journal.pmed1000097)

Table 1.

Search Strategy

PubMed: 10.4.2018		
Search	Query	Results
#1 – Minority Group	(“healthcare disparities”[mesh] OR “health status disparities”[mesh] OR “population groups”[mesh] OR “ethnic groups”[mesh] OR “ethnic groups”[tiab] OR “minority groups”[mesh] OR minority[tiab] OR minorities[tiab] OR “minority health”[mesh] OR “racial/ethnic minority”[tiab] OR “racial/ethnic minorities”[tiab] OR “racial/ethnic disparities”[tiab] OR “racial/ethnic disparity”[tiab] OR “vulnerable populations”[mesh] OR “vulnerable populations”[tiab] OR “vulnerable population”[tiab] OR “cultural characteristics”[mesh] OR “cross-cultural comparison”[mesh] OR ethnology[mesh] OR “Hispanic Americans”[mesh] OR hispanic[tiab] OR hispanics[tiab] OR Latino[tiab] OR Latinos[tiab] OR Latina[tiab] OR Latinas[tiab] OR Latinx[tiab] OR “African Americans”[mesh] OR “African Americans”[tiab] OR “African American”[tiab] OR black[tiab] OR blacks[tiab])	499274
#2 – Cancer	(adenocarcinoma*[tiab] OR cancer*[tiab] OR carcinoma*[tiab] OR leukemia*[tiab] OR malignan*[tiab] OR metasta*[tiab] OR melanoma*[tiab] OR neoplas*[tiab] OR neoplasms[mesh] OR sarcoma*[tiab] OR tumor[tiab] OR tumors[tiab] OR tumour[tiab] OR tumours[tiab])	3958465
#3 – video/multimedia	(“video recording”[mesh] OR videorecording[tiab] OR video[tiab] OR videos[tiab] OR videotape[tiab] OR videotapes[tiab] OR audiovisual[tiab] OR audiovisuals[tiab] OR media[tiab] OR multimedia[tiab] OR multimedia[mesh])	352428
#1 AND #2 AND #3		708

Table 2.

Summary of Studies

Author, (year)	Design	Purpose	n	Race/ Ethnicity	Cancer Diagnosis	Intervention Description	Outcomes / Conclusions	Bias score
Anderson (2004) ²⁸	RCT	Evaluate efficacy of a pain education intervention	97	AA (n=42) Hispanic (n=55)	Breast (n=36); GI (n=21); lung (n=17); gynecologic/genitourinary (n=16); other (n=7)	~20 minute videos about pain that were developed through previous participatory, exploratory work with underserved AAs and Hispanics with CRP.	Pain (primary) Pain control, QOL, functional status, discrepancy between physician's estimation of patient's pain and patient's reported pain (secondary)	Good [*]
Banas (2017) ³⁰	Qualitative	Identify Spanish-speaking, Hispanic breast cancer survivor support needs and preferences for a mHealth intervention	31	Spanish speaking, Hispanics	Breast (86.7%), cervical (3.3%), Hodgkin's lymphoma (3.3%), leukemia (3.3%), multiple myeloma (3.3%)	N/A	Positive support for interventions culturally targeted to Spanish speakers, available in Spanish, that connects patients with survivors.	Include ^{**}
Bouton (2012) ²⁹	Quasi experimental (case control)	Evaluate effect of a video on patient understand of basic cancer concepts	81	Hispanic (68%), Caucasian (22%), AA (6%), other (4%)	Breast	~8 minute video addressing basic concepts about breast cancer and management. Available in English and Spanish.	Knowledge about basic breast cancer and treatment options	Fair [*]
Cassileth (1982) ³¹	Descriptive Quantitative	Evaluate effect of audiovisual programs	60	Black (27%)	Lung (11%), breast (27%), gynecologic (4%), head/neck (7%), hematologic (25%), GI (12%), other (13%)	~14 minutes including real patients staff and treatment equipment video about either chemotherapy, radiation, common questions about cancer, or pain and sleep	Knowledge	Fair [*]
Hodge (2012) ²⁶	Multiphase – Grounded Theory & Descriptive	Identify cultural concepts of cancer and illness beliefs, communication styles, barriers, and self-management strategies.	59	American Indians	Not indicated	Video developed from focus groups of 132 survivors, caregivers, and community leaders, used in a symptom management toolkit	The video was an important part of the toolkit because it was an easy format to share and provided role models that reflected the cultural background of participants	Include [*]
Perez (2014) ²⁷	Descriptive	Develop and pilot a culturally targeted, cancer-communication intervention.	10	African American	Breast	Tablet with 207 video clips organized by topic and selected from the Living Proof Library of cancer stories ³⁶	Usability, follow-up treatment adherence, QOL. Participants spent 23 – 42 min watching clips and most participants reported positive emotional reactions to stories and high levels of identification with story tellers.	Fair [*]
Sanderson (2010) ³²	Qualitative Descriptive	Evaluate video effects on treatment-related knowledge, attitudes, and beliefs and assess health care providers' perceived value of the video information.	14	Navajo	Breast	12-minute video about cancer created by health promotion specialists and educators who traveled through Navajo Nation for 6 months getting input from the community. ⁴³	Majority of survivors believed the video would help them communicate with their provider and at 6-month follow-up credited the video with helping them with treatment decisions.	Include [*]

Abbreviations: AA, African American; CBPR, community based participatory research; CRP, cancer related pain; GI, gastrointestinal; RCT, randomized control trial; QOL, quality of life.

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* indicates the National Heart, Lung, and Blood Institute Study Quality Assessment tools were used to score bias. Possible ratings are Good Fair Poor.
** indicates the Joanna Briggs Institute criteria for qualitative research tool was used to score bias. Possible ratings are Include, Exclude, Seek further information.