

Survivorship Care Planning: An Evidence Based Quality Improvement Project in Breast Cancer

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Abstract

Cancer survivors meet survivorship with uncertainty due to a lack of uniform information provided post cancer treatment. The implementation of survivorship care plans (SCP) has been recognized by key stakeholders as the solution to transitional uncertainties. In fact, to achieve accreditation by the Commission on Cancer (CoC) cancer centers are required to deliver SCPs to cancer survivors within a year of their treatment completion. Research demonstrates SCP delivery results in significant improvement in patient satisfaction, coordination of care, and survivorship care knowledge. In order to meet CoC standard 3.3 and bring understanding to SCPs function in cancer survivorship care a quality improvement project was initiated within an Arizona cancer center. SCPs were delivered at a survivorship visit to adult breast cancer patients. SCPs affect on survivors' confidence in cancer self-care knowledge and care satisfaction was evaluated as well as the organization's adherence to CoC standard 3.3 requirements. Identified survivors were scheduled for a survivorship visit where a SCP was delivered by a oncology provider. Survivors perceived confidence in knowledge and satisfaction was measured using the modified 16-item Confidence in Survivorship Information Questionnaire (CSI). Questionnaires were completed pre and post survivorship visit. A paired t-test analysis was used to evaluate SCP effectiveness. There was an increase in the delivery of SCPs from zero to 57 with an 84 percent SCP delivery from August 2017 to January 2018. Survivors and providers verbalize value in SCPs. No statistical significance was found in the comparison of SCPs affect on survivors' confidence in cancer self-care knowledge and care satisfaction to that of standard follow-up care; however, when comparing the pre/post questionnaire averages an improvement was noted across the board. The prospect of this project is to unveil the impact SCP delivery at a survivorship visit has on the selected metrics. This project aids as a director for organization wide implementation for CoC standard 3.3 requirement compliance.

Keywords: survivorship, care plan, survivorship care plan, cancer, neoplasm, breast cancer, breast neoplasm, confidence, self-efficacy, satisfaction, health promotion, follow-up recommendations, and follow-up adherence

Survivorship Care Planning

With medical advances in cancer treatment, detection, and supportive care the number of cancer survivors has exponentially grown (Rowland & Yancik, 2006). Of those diagnosed with cancer, two of three persons are expected to live at least five years past their diagnosis. Currently, 14 million cancer survivors live in the United States. By 2024 this number is expected to be more than 18 million (Centers for Disease Control and Prevention, 2016).

Problem

Reaching survivorship for cancer patients is a great triumph; however, the completion of treatment marks the beginning of another battle. Several challenges have been found in the realm of the continuation of post cancer treatment care. These challenges include the ambiguity of follow-up care and long-term effects and health risks due to cancer diagnosis and treatment which affect the physical, psychosocial, and emotional well-being of the survivor (Nolte et al., 2016; Sprague et al., 2013). The uncertainty of follow-up care is due to oncologists' inability to continue as the predominant provider in survivorship care with the increase of their patient population (Boeknout et al., 2014). This has placed survivorship care in the hands of primary care providers (PCPs), who along with survivors are uncertain of follow-up care for appropriate screening and surveillance (Jackson, Scheid, & Rolnick, 2013). This is due to the lack of care coordination during the transition phase from a cancer patient to a survivor (Salz & Baxi, 2016). Long-term physical, psychosocial, and emotional effects may include, but are not limited to: pain, fatigue, and psychological distress. Also, cancer survivors are at a higher risk of acquiring hypertension, diabetes, dyslipidemias, and becoming obese (Sisler, Chaput, Sussman, & Ozokwelu, 2016). If the survivor is unaware of these effects and risks it is difficult for them to optimize their own well-being and take the appropriate steps to prevent further health issues.

With the continuing evolution of the cancer survivor population it is important for survivors and providers to understand follow-up care and the unique physical, psychosocial, and emotional effects and risks of survivorship (DeSantis et al., 2014). Lack of understanding increases the survivors' chances of acquiring and mismanaging long-term effects and chronic health issues. Also, the survivor may neglect cancer surveillance recommendations that identify cancer recurrence. Without proper survivorship care the survivor may not be able to make a successful transition from a patient to a survivor (Bulloch et al., 2017).

Purpose and Rationale

In 2006, the Institute of Medicine (IOM) released the report *From Cancer Patient to Cancer Survivor: Lost in Transition* that brought attention to the inadequacies of current survivorship care. In an attempt to correct these inadequacies the IOM identified four essential components of survivorship care (a) prevention and detection of cancers (new or recurrent), (b) surveillance for cancer (spread, reassurance, or secondary), (c) interventions for long-term effects of cancer diagnosis and treatment, and (d) care coordination between providers in order to meet survivors specific needs (IOM & National Research Council [NRC], 2006). Alongside these essential survivorship components the IOM proposed 10 recommendations to help improve survivorship care, one of which stated that each cancer survivor should be given a SCP upon the completion of their primary treatment (Klemanski, Browning, & Kue, 2015). This SCP includes the survivors complete care summary (cancer diagnosis and treatment), possible long-term effects, surveillance and lifestyle recommendations, and provider identification in regard to who will be in charge of care (Bulloch et al., 2017). This specific recommendation has shown to be important among many key cancer stakeholders such as the American Society of Clinical Oncology (ASCO), American Cancer Society (ACS), National Comprehensive Cancer Network,

National Cancer Institute's Office of Cancer Survivorship, National Coalition for Cancer Survivorship, Oncology Nursing Society, and LIVESTRONG. All have endorsed the IOM recommendation for SCPs (Klemanski, Browning, & Kue, 2016). The CoC has taken this recommendation a step further and is requiring that by 2018 at least 75 percent of cancer survivors must receive a SCP at the time of the survivor's initial cancer treatment completion in order to be deemed a cancer center (Commission on Cancer, 2014). Despite key stakeholders efforts many health care systems and cancer centers have shown inconsistency with the implementation and deliverance of SCPs (Klemanski, Browning, & Kue, 2016). This paper investigates the use of SCPs through a current literature review, reviews the positive potential of SCPs, the challenges they present, and a review of the evidence surrounding them.

Background and Significance

The importance of SCPs has been unremittingly acknowledged in the cancer reform agenda for over a decade. However, despite organizational support, some evidence, and face validity, only a few cancer centers have implemented them within their practice routine (Nolte et al., 2016). Fifty-six percent of cancer programs in the United States admit to not using SCPs (Birken, Deal, Mayer, & Weiner, 2014). This has resulted in a lack of understanding as to how they impact both patients and providers in the transition of survivorship care (Nolte et al., 2016). Cancer survivors are uncertain as to what comes next in their transition from patient to survivor. Survivors are both fearful and uncertain about their survivorship. Although they are relieved to have completed treatment, they are unsure where this leaves them in relationship to their providers, and who is responsible for follow-up care and surveillance (Haq et al., 2013). Healthcare providers have conflicting perspectives on their roles in survivorship care, which is detrimental to the survivor as it may result in excess testing or worse, the omission of

recommended follow-up surveillance (Birken, Deal, Mayer, Weiner, 2014). SCPs are meant to provide direction for survivors to improve health outcomes, clarify providers' responsibilities, and decrease gaps in survivorship care (IOM & NRC, 2006). These care plans further encourage care coordination, communication between providers, improved survivorship care knowledge, and the understanding of needs that a survivor may have in their future (Forsythe et al., 2013). Survivors must be given information in order to be their own advocate. SCPs are intended to provide this information to improve patient advocacy (Keesing, McNamara, & Rosenwax, 2015).

Although the amount of high-level evidence in the support of SCPs is limited, there have been several studies that have found benefits in the areas of survivor and provider satisfaction, improving knowledge related to the survivor's diagnosis and treatment, and improved communication between the survivor and their providers (Nolte et al., 2016). Haq et al (2013) conducted a qualitative pilot study that found SCPs to effectively address survivorship follow-up needs. Faul et al. (2014) reported that SCPs improved survivorship care knowledge within older breast cancer survivors. Oancea & Cheruvu (2016) found that SCPs benefit survivor's psychological well-being. Bulloch et al. (2015) noted that 100 percent of breast cancer survivors were interesting in getting a SCP. Two randomized control trials showed higher satisfaction rates in follow-up care for breast cancer survivors after receiving a SCP (Brennan, Gormally, Butow, Boyle, & Spillane, 2014). Blaauwbroek et al., (2012) found that adherence to follow-up recommendations was higher in survivors who provided their PCP with a SCP. Providers are shown to benefit from SCPs as well. Forsythe et al (2013) illustrated improved care coordination, communication, and confidence in providers' knowledge of survivorship care post SCP receipt. In a multicenter trial participants were found to have improved satisfaction of care, survivorship knowledge, and care coordination after the implementation of a SCP (Palmer et al., 2015).

The current literature consistently calls for continued research. Barriers such as the implementation process, reimbursement, institutional resources, and time constraints need to be explored (Palmer et al., 2015). Tompkins and O' Brien (2014) emphasized the importance of defining who is responsible for the coordination of survivors' follow-up care through further research. Other authors focused on the facilitation, creation, and implementation process of SCPs (Forsythe et al., 2013). In a systematic review of qualitative studies, Keesing, McNamara, & Rosenwax (2015) found that although stakeholders agreed upon the importance of SCPs in survivorship care there is a lack of consensus on SCP format and deliverance, inconsistency of SCP reciprocation, and little high-level evidence to support the use of SCPs. Another area of research that was suggested is which key cancer survivor populations should be focused on. Forty percent of women cancer survivors are breast cancer survivors, it is recommended that future studies should be focused on breast and colon cancer survivors due to the fact that they make up most of the survivorship population to date (Salz & Baxi, 2016; Bulloch et al., 2015; Miller, 2008).

SCPs effect on survivors' confidence in self-care and health promotion are other outcome metrics that require further research. Arora et al. (2011) reported 59 percent of survivors stated limited to no health promotion or prevention aspects were addressed in their follow-up care. Kvale et al. (2016) conducted a randomized control trial (RCT) and found that survivors who received SCPs reported higher self health and efficacy. This study illustrated the positive impact SCPs can have on survivors' self-care and health promotion. Breast cancer survivors reported higher understanding of their follow-up care and self-efficacy after receiving a SCP compared to survivors who did not (Ezendam et al., 2014). Limited evidence exists in

relation to SCPs and survivors health benefits, therefore, more studies should aim to identify this relation (Mayer, Birken, Check, & Chen, 2015).

Internal Evidence and PICO

It has become evident to a cancer center in the metropolitan Phoenix area that there is much need and opportunity for an evidence-based practice project within the realm of cancer survivorship care. Currently, this cancer center is in the process of figuring out how to implement survivorship care plans within two pilot groups, the breast and colon cancer survivors. The process of implementation has not begun. This is an issue because of the looming CoC requirement. If they do not meet the CoC standard 3.3 requirements, as previously outlined in the purpose and rationale, they will no longer be deemed a cancer center. This illustrates the importance of survivorship care planning and the impact that it has on its stakeholders.

This inquiry has led to the clinically relevant PICO question, “In breast cancer survivors, how does a survivorship care plan compared to standard follow-up care affect survivors’ confidence in cancer self-care knowledge and care satisfaction?”

Search Strategy

An exhaustive search was conducted in order to answer this clinical inquiry. CINAHL (Appendix A), PubMed (Appendix B), and PsychINFO (Appendix C) were the three databases searched to retrieve valid, reliable, and applicable literature. Key search terms included: *survivorship, care plan, care plans, or care planning, survivorship care plan, survivorship care plans, survivorship care planning, cancer survivorship, cancer, neoplasm, breast cancer, breast neoplasm, survivor, breast cancer survivor, confidence, self-efficacy, satisfaction, health promotion, follow-up recommendations, and follow-up adherence.*

CINAHL (Appendix A) was first searched using the Boolean connectors AND/OR. Survivorship care plans and breast cancer or breast neoplasm yielded 38 articles. Using the term cancer or neoplasm, which produced a yield of 44 articles, further expanded this search. The only limiting factor included in this initial search was a published date between 2013-2107. Additional searches were conducted for each outcome metric. The Boolean connector AND connected survivorship care plan or survivorship care plans to: cancer or neoplasm, breast cancer or breast neoplasm, survivor confidence, confidence, satisfaction, health promotion, follow-up recommendations, and follow-up adherence. Sixty-seven articles in total generated after these searches. No limitations, inclusion, or exclusion criteria were set on these searches due to the limited yield of articles.

A similar search was conducted in the PubMed database (Appendix B). Terms survivorship, care plan or care plans, and cancer or neoplasm were connected with the AND connector. The initial yield included 281 articles. This search was further limited to 81 articles by using the terms breast cancer or breast neoplasm instead of the general terms cancer or neoplasm. Including the term care planning within this same search yielded three additional articles. Outcome metrics were included within additional searches. Survivorship care plan or survivorship care plans were connected using the Boolean connector AND to cancer or neoplasm, breast cancer or breast neoplasm, confidence, satisfaction, health promotion, and follow-up recommendations. In total these searches yielded 137 articles. The limiter applied was that each term must be within the title or abstract of the article.

PsychINFO (Appendix C) was the final database searched. Initially 160 articles generated from the connected search terms of cancer survivorship and care plan or care planning. This search was condensed to 136 through the limiter of publication date from 2013-2017. Survivor or

breast cancer survivor was connected to previously searched terms through the AND connector. The limiter of publication date was removed. This search yielded 138 articles. In order to review articles that were specific to the clinical question's population, breast cancer or breast neoplasm was connected to survivorship and care plan or care planning. Fifty-five articles were found to relate to this search.

Saturation was met based upon the reoccurrence of articles within each database. Between the three databases the final field was 259, however, many of these articles were duplicates, were not peer reviewed studies, and included childhood cancers, therefore they were discarded. Forty articles were further reviewed and appraised. Article exclusion continued if they were published prior to 2013, examined provider preference only, had limited generalizability due to modest sample diversity, had poorly structured descriptive and statistical data, and were irrelevant to the clinical inquiry. Eleven articles remained and were selected for further evaluation due to their quality and relevance to the clinical question (Appendix D).

Critical Appraisal & Synthesis

Eleven studies were retained after rapid critical appraisal. With regard to the level of evidence, four were level one (systematic reviews [SRs]), three were level two (randomized control trials [RCTs]), and four were level four: one cohort study, one feasibility study, and two cross-sectional studies (MeInyk & Fineout-Overholt, 2015). The majority of studies were conducted in the United States, and all were quantitative studies except one. The quality of the chosen studies was deemed to be high after thorough review (Appendix D).

Sample size among level II-IV evidence ranged from 79 to 1,615 participants. The studies' demographic information revealed moderate homogeneity, which could result in bias of outcome data. No biases were specifically mentioned (Appendix D). All eleven studies involved

adult cancer survivors with a variable mean age ranging from 37 to 75 years. All studies had more female participants than male, and most participants were survivors of breast or colorectal cancer (Jefford et al, 2016). Four studies evaluated breast cancer survivors; one study evaluated colorectal cancer survivors, while the remaining studies evaluated a variation of breast, colorectal, gynecological, and other non-specified malignancies.

The primary intervention, implementation of SCPs, was evaluated across all studies. Three studies addressed SCPs along with treatment summaries (TS) as an intervention, while two studies addressed SCP plus a survivorship visit (SCPSV) as an intervention. Content and distribution of SCPs revealed heterogeneity. The outcomes of interest addressed across the studies included: quality of life, satisfaction, survivorship care knowledge, coordination of care, follow-up to recommended guideline adherence, survivor distress, and survivor self-efficacy (Appendix E). Self-efficacy and follow-up guideline adherence were the two variables that had the least representation, therefore, research efforts that evaluate these variables are necessary (Appendix E). This information demonstrates value in the development of a project with the focus of improving survivorship care.

There is heterogeneity of measurement tools. Most measurement tools were reported as being valid and reliable, however, it was difficult to assess because each study used distinct questionnaires and surveys. Potential for bias is apparent for the studies using surveys due to their subjective nature (MeInyk & Fineout-Overholt, 2015). Reliability and validity was demonstrated in all studies. (Appendix D).

The overarching themes that were found, in relation to outcomes, were improved patient satisfaction and coordination of care. These outcomes were significantly demonstrated in five of the eleven appraised studies after SCP implementation. Another outcome that presented

significant improvement across multiple studies was survivorship care knowledge. The SCP intervention that included survivorship visits demonstrated the most significant outcome evidence (Appendix E).

To date the results of SCP implementation have been inconclusive. It is unknown as to what factors are playing into these results. Despite this, there have been significant benefits in patient satisfaction, coordination of care, and survivorship care knowledge. Application of these significant findings in research and evidence-based practice projects could result in more significant data and SCP process improvement (Appendix D).

Purpose Statement

This evidence has led to the initiation of an evidence-based quality improvement project. Breast cancer survivors that meet CoC survivor eligibility are the population of choice. This is based on evidence that breast cancer is the most prevalent cancer for those to survive and the most prominent cancer type. Through the involvement of stakeholders such as: the cancer center's nursing research manager, nursing informatics, multidisciplinary oncology providers, the cancer registry, and the chosen SCP vendor team, data was collected to evaluate the cancer center's compliance to CoC standard 3.3 requirements and breast cancer survivors' confidence in cancer self-care knowledge and care satisfaction pre/post the initiation of a specific survivorship visit where a SCP was delivered. The prospect of this pilot project is to meet CoC standard 3.3 requirements and bring understanding to SCPs function in cancer survivorship care.

Models

The Mayo Clinic Nursing Evidence-Based Practice Model (MCNEBP) was selected to guide the implementation of the proposed evidence-based SCP pilot intervention. This seven-step model was developed to guide practice change within Mayo for the purpose of assuring the

use of best practice for attaining the best patient outcomes (Mayo Clinic, 2017). The MCNEBP Model is specific to the Mayo Clinic and its patients, therefore, appropriateness of setting and population is apparent. The seven steps include: formulate a question, search for evidence, appraise the evidence, compare and contrast, decision options, evaluate, and disseminate. An aspect unique to this model that is specific to SCP implementation is step five. There are four decision options to choose from after comparing and contrasting evidence. If strong evidence is in support of a change then the implementation of a practice change can occur, and if the evidence is inconclusive the options are to place the project on hold, implement a quality improvement project, or a research study (Mayo Clinic, 2017). Although the evidence for SCP implementation is inconclusive patient satisfaction, coordination of care, and cancer care knowledge elicited improvement; therefore, through the guidance of this model a project will be initiated using the significant data found for facility quality improvement. This model will further guide this project through evaluation and dissemination. SCPs effectiveness will be evaluated through a pre and post questionnaire, and findings will be disseminated through internal and external presentations.

The Chronic Care Model (CCM) further guides SCP implementation within the cancer center. This model came about to correct the deficits that were present in the management of chronic disease. The goal of this model is to attain proactive disease management instead of reactive, which has resulted in improved care and patient outcomes (Improving Chronic Illness Care, 2017). In correlation to this project, the goal of SCPs is to improve the deficits that are present in cancer survivorship care; therefore, the CCM was adopted to guide the content and structure of SCP implementation. The six fundamental elements that make up this model includes: the community, the health system, self-management support, delivery system design,

decision support, and clinical information systems. Each element includes a change concept that is necessary for element improvement. These change concepts include: to meet patients' needs through community resources, to create a health system that fosters safe and high quality care, patient empowerment and preparation in regards to their health and the care they should receive, effective and efficient care that supports self-management, promotion of care that is based off of evidence and patient preference, and readily assessable patient/population data to attain care that is efficient and effective. Evidence demonstrates that the products of combining these elements and their change concepts include healthier patients, satisfied providers, fiscal savings, improved patient-provider communication, improved patient participation in care, and enhanced utilization of provided resources in respect to chronic disease care (Wagner, 1998). The creation of a survivorship visit and the information that is included within the SCPs has been based upon these elements and change concepts. All elements and concepts have been incorporated into a personalized SCP. Breast cancer survivors will receive their SCP at a survivorship visit in the hope to improve their survivorship care from that of their current standard follow-up care. Using this model generates SCP component structure and connection, which in turn assists project development, implementation, and potential practice change.

Methods

An evidence-based quality improvement project was initiated within an accredited cancer center in Arizona. A SCP intervention was delivered at a survivorship visit to eligible adult breast cancer patients. The CoC's survivor eligibility criteria included breast cancer patients 18 and older that were treated with curative intent for an initial cancer occurrence. The CoC also required SCPs to be delivered within one year of patients' cancer treatment completion. CoC

eligible breast cancer survivors included in the pilot were identified retrospectively by the organization's cancer registry.

Prior to the implementation of the intervention the organization's breast cancer providers received SCP and project workflow education. This multi-disciplinary education was conducted for the purpose of optimizing the SCP delivery process. Starting in August 2017 identified survivors were scheduled for a survivorship visit. Prior to the visit SCPs were created by a registered nurse care coordinator and then reviewed and finalized by an oncology provider. The SCPs were reviewed and delivered by the oncology provider at a specified survivorship visit and included four essential elements: description of specific cancer diagnosis, treatments received, instruction for follow-up care, and health promotion recommendations. Survivors perceived confidence in cancer self-care knowledge and care satisfaction was measured using the Confidence in Survivorship Information Questionnaire (CSI). This 13-item questionnaire measures survivors' confidence in their knowledge of cancer diagnosis, treatment, prevention/treatment of late disease/treatment effects, disease prevention, accessibility to resources, and family cancer risk (Palmer, Jacobs, Mao, & Stricker, 2012). With permission from the creators of the CSI three items were added to the questionnaire to address survivor care satisfaction. Although there is no known validity to date, the reliability of this instrument is set upon two subscales. The first three items of the questionnaire address survivor knowledge of their cancer diagnosis and treatment and have a Cronbach's alpha of 0.77 (Palmer, Jacobs, Mao, & Stricker, 2012). The last 10 items have a Cronbach's alpha of 0.95. This information demonstrates relevance to evaluation questions and reliability of the instrument. The CSI utilizes a three-point Likert scale with numerical values ranging from 1 (not at all confident) to 3 (very confident), whereas a 5-point Likert scale with numeric values ranging from 5 (very satisfied)

to 1 (very dissatisfied) was utilized for the evaluation of patient care satisfaction. Questionnaires were completed prior to receiving their SCP at the survivorship visit. Post CSI questionnaires were completed by phone in February 2018. The doctorate of nursing practice student contacted initial survey project participants by phone and followed an Institute of Review Board (IRB) script. A paired T-test analysis, alpha 0.5, was used to evaluate SCP effectiveness. Throughout the pilot the organization's adherence to CoC standard 3.3 requirements was evaluated by tracking the number of survivors identified as needing a SCP, number of SCPs delivered, percentage of the two, and percentage^[1] of the correct SCP sent to health information management systems (HIMS) per provider.

Project IRB approval was obtained by ensuring the protection of survivors' privacy and rights through data being stored in encrypted servers/files, which were locked in cabinets. Also, a username and password protected encrypted access. All protected health information complied with HIPPA rules. The only individuals granted access to material were those who participated in the project or provided direct care to the patient. Data was stored for the duration of pilot project, and expires 24 months from project initiation.

Results

Data demonstrated an increase in the delivery of SCPs from zero to 57, and a practice change adherence (SCP delivery) of^[1]84 percent from August 2017 to January 2018. Survivors and providers verbalize value in SCPs. Twenty-two breast cancer survivors completed a pre CSI questionnaire and 20 of those completed a post CSI questionnaire. No statistical significance was found in the comparison of SCPs effect on survivors' confidence in cancer self-care knowledge and care satisfaction to that of standard follow-up care; however, when comparing the pre and post questionnaire averages an improvement was noted across the board. Survivors' confidence

in their knowledge of: preventing and treating long-term physical effects, community resources available to them, family cancer risk, family risk information, and overall care satisfaction were the areas of most clinical significant improvement post survivorship visit and SCP delivery. For graphical representation of CSI questionnaire statistical and average findings reference appendix G and H.

Discussion

Throughout this project a team-based approach was utilized. The organization's colorectal practice implemented SCPs through a workflow that was slightly different from breast's. This team-based approach was shown useful through CSI questionnaire findings. An overall improvement in breast and colorectal cancer survivors' confidence in cancer self-care knowledge and care satisfaction was demonstrated, which is consistent with current literature and supports the continuation of SCP delivery. The colorectal practice identified significance in results unlike the breast practice. This was most likely due to their provider workflow consistency. Unfortunately provider inconsistency occurred in the breast practice due to an unexpected absence. This resulted in acquiring other providers who did not receive as extensive of education on SCP workflow and delivery as the original provider. This contributed to missed survivorship consults and delivery inconsistency due to a variation in eligible survivor identification. Organization compliance requires continued improvement to reach future SCP delivery recommendations; however, this project enhances current research findings in the fact that SCP effect is increased through consistency in provider education and the use of a focused survivorship visit. Project limitations included a small sample size and a six-month observation time. Another six months would have not only added to the sample size, but also allowed for the evaluation of SCP delivery effect on patient outcomes such as: National Comprehensive Cancer

Network follow-guideline adherence and health promotion behaviors (vaccine adherence and smoking cessation). The cost of the vended SCP product may be viewed as a burden by some, however, the reduction in cost of care through improvements in survivors' self-efficacy and disease prevention and health promotion practices may decrease the use of unnecessary healthcare resources. With this outcome vended SCP products may be viewed as a cost saving. Future research should include larger sample sizes and further investigation to identify the best SCP tool and delivery process.

Conclusion

SCP delivery through a strategically designed survivorship visit shows to be an operational framework that improves the transition from cancer patient to survivor. This project aids as a guide for organization SCP implementation and CoC standard 3.3 requirement compliance. The implementation of SCPs at a survivorship visit not only serves as a device to instill greater confidence in survivors' cancer self-care knowledge, but also improves survivors' overall care satisfaction. In the end, effectively empowering cancer survivors in their survivorship transition has the potential to improve their chances for long-term survival and optimize their quality of life.

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Appendix A Search Strategy: CINHAL



Searching: CINAHL Plus with Full Text | [Choose Databases](#)


Suggest Subject Terms

Select a Field (option...) Search Clear ?

AND Select a Field (option...)

AND Select a Field (option...) + -

[Basic Search](#) [Advanced Search](#) [Search History](#) ▼




Search History/Alerts

[Print Search History](#) | [Retrieve Searches](#) | [Retrieve Alerts](#) | [Save Searches / Alerts](#)

Select / deselect all
[Search with AND](#)
[Search with OR](#)
[Delete Searches](#)
[Refresh Search Results](#)

Search ID#	Search Terms	Search Options	Actions
<input type="checkbox"/> S3	survivorship AND (cancer or neoplasm) AND (care plan or care plans)	Search modes - Boolean/Phrase	View Results (236) View Details Edit
<input type="checkbox"/> S2	survivorship AND (care plan or care plans) AND (breast cancer or breast neoplasm)	Search modes - Boolean/Phrase	View Results (71) View Details Edit
<input type="checkbox"/> S1	breast cancer AND survivorship AND care plan	Search modes - Boolean/Phrase	View Results (62) View Details Edit

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[Evidence-Based Care Sheets](#)
[More](#) ▼
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Searching: CINAHL Plus with Full Text | [Choose Databases](#)


Suggest Subject Terms

Select a Field (option...) Search Clear ?

AND Select a Field (option...)

AND Select a Field (option...) + -

[Basic Search](#) [Advanced Search](#) [Search History](#) ▼



Search History/Alerts

[Print Search History](#) | [Retrieve Searches](#) | [Retrieve Alerts](#) | [Save Searches / Alerts](#)

Select / deselect all
[Search with AND](#)
[Search with OR](#)
[Delete Searches](#)
[Refresh Search Results](#)

Search ID#	Search Terms	Search Options	Actions
<input type="checkbox"/> S8	(survivorship care plan or survivorship care plans) AND (cancer or neoplasm) AND follow-up adherence	Search modes - Boolean/Phrase	View Results (1) View Details Edit
<input type="checkbox"/> S7	(survivorship care plan or survivorship care plans) AND cancer survivor AND NCCN follow-up recommendations	Search modes - Boolean/Phrase	View Results (0) View Details Edit
<input type="checkbox"/> S6	survivorship care plan survivorship care plans AND (cancer or neoplasm) AND health promotion	Search modes - Boolean/Phrase	View Results (11) View Details Edit
<input type="checkbox"/> S5	(survivorship care plan or survivorship care plans) AND (breast cancer or breast neoplasm) AND satisfaction	Search modes - Boolean/Phrase	View Results (14) View Details Edit
<input type="checkbox"/> S4	(survivorship care plan or survivorship care plans) AND cancer survivor AND satisfaction	Search modes - Boolean/Phrase	View Results (26) View Details Edit
<input type="checkbox"/> S3	(survivorship care plan or survivorship care plans) AND cancer survivor AND confidence in self-care	Search modes - Boolean/Phrase	View Results (0) View Details Edit
<input type="checkbox"/> S2	(survivorship care plan or survivorship care plans) AND (cancer or neoplasm) AND confidence	Search modes - Boolean/Phrase	View Results (13) View Details Edit
<input type="checkbox"/> S1	(survivorship care plan or survivorship care plans) AND (cancer or neoplasm) AND survivor confidence	Search modes - Boolean/Phrase	View Results (2) View Details Edit

Refine Results

Current Search ▼

Search Results: 1 - 1 of 1

[Examining Adherence With Recommendations for Follow-Up in the Prevention Among Colorectal](#)

Relevance ▼ | Page Options ▼ | [Share](#) ▼

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[Development of a](#)

Appendix B Search Strategy: PubMed

NCBI Resources How To Sign in to NCBI

PubMed Home More Resources Help

PubMed Advanced Search Builder [You Tube Tutorial](#)

Use the builder below to create your search

[Edit](#) [Clear](#)

Builder

All Fields [Show index list](#)

AND All Fields [Show index list](#)

Search or [Add to history](#)

History [Download history](#) [Clear history](#)

Search	Add to builder	Query	Items found	Time
#4	Add	Search ((survivorship[Title/Abstract]) AND (care plan[Title/Abstract] OR care plans[Title/Abstract] OR care planning[Title/Abstract])) AND (breast cancer[Title/Abstract] OR breast neoplasm[Title/Abstract])	84	20:12:43
#3	Add	Search ((survivorship[Title/Abstract]) AND (care plan[Title/Abstract] OR care plans[Title/Abstract])) AND (breast cancer[Title/Abstract] OR breast neoplasm[Title/Abstract])	81	20:10:05
#2	Add	Select 5 document(s)	5	20:04:22
#1	Add	Search ((survivorship[Title/Abstract]) AND (care plan[Title/Abstract] OR care plans[Title/Abstract])) AND (cancer[Title/Abstract] OR neoplasm[Title/Abstract])	281	20:01:45

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Use the builder below to create your search

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Builder

All Fields [Show index list](#)

AND All Fields [Show index list](#)

Search or [Add to history](#)

History [Download history](#) [Clear history](#)

Search	Add to builder	Query	Items found	Time
#19	Add	Search (((survivorship care plan[Title/Abstract] OR survivorship care plans[Title/Abstract])) AND (cancer[Title/Abstract] OR neoplasm[Title/Abstract])) AND follow-up recommendations[Title/Abstract]	1	21:21:32
#16	Add	Search (((survivorship care plan[Title/Abstract] OR survivorship care plans[Title/Abstract])) AND (cancer[Title/Abstract] OR neoplasm[Title/Abstract])) AND health promotion[Title/Abstract]	13	21:17:57
#8	Add	Search (((survivorship care plan[Title/Abstract] OR care plans[Title/Abstract])) AND (breast cancer[Title/Abstract] OR breast neoplasm[Title/Abstract])) AND satisfaction[Title/Abstract]	18	21:12:10
#6	Add	Search (((survivorship care plan[Title/Abstract] OR survivorship care plans[Title/Abstract])) AND (cancer[Title/Abstract] OR neoplasm[Title/Abstract])) AND satisfaction[Title/Abstract]	36	20:52:16
#3	Add	Search (((survivorship care plan[Title/Abstract] OR survivorship care plans[Title/Abstract])) AND (cancer[Title/Abstract] OR neoplasm[Title/Abstract])) AND confidence in self-care	3	20:43:58
#2	Add	Search (((survivorship care plan or survivorship care plans)) AND (cancer or neoplasm)) AND confidence	66	20:42:11

Appendix C Search Strategy: PsychINFO

Discussion Board - 2017Spring-D-Nunez
Recent Searches: Recent Searches - ProQuest
RefWorks Web Based Bibliographic Management Software

Recent Searches

To save a search, select **Save search** from the **Actions** menu. [Learn more](#)

Combine searches: [Search tips](#)

Examples: 1 AND 3 or "5"
(1 AND 3) OR (1 AND 2)
3 NOT treatment

Items selected: 0 | [Show all details](#) |

<input type="checkbox"/>	Set ▼	Search	Databases	Results	Actions ▼
<input type="checkbox"/>	S6	survivorship AND (care plan OR care planning) AND (breast cancer OR breast neoplasm)	PsycINFO	55*	Actions ▼
<input type="checkbox"/>	S5	survivorship AND (care plan OR care planning) AND (cancer OR neoplasm) AND (survivor OR breast cancer survivor)	PsycINFO	138*	Actions ▼
<input type="checkbox"/>	S4	survivorship AND (care plan OR care planning) AND (cancer OR neoplasm) AND survivor	PsycINFO	138*	Actions ▼
<input type="checkbox"/>	S3	survivorship AND (care plan OR care planning) AND (cancer OR neoplasm) ✓ Limits applied	PsycINFO	136*	Actions ▼
<input type="checkbox"/>	S2	survivorship AND (care plan OR care planning) AND (cancer OR neoplasm)	PsycINFO	160*	Actions ▼
<input type="checkbox"/>	S1	(cancer survivorship) AND (care plan OR care planning)	PsycINFO	160*	Actions ▼

* Duplicates are removed from your search and from your result count.

Appendix D
Evaluation Table

Citation	Conceptual Framework	Design/Method	Sample/Setting	Major Variables & Definitions	Measurement	Data Analysis	Findings	Decision for Use in Practice/Application to Practice
Boekhout, A. H. (2015). A survivorship care plan for breast cancer survivors: Extended results of a randomized clinical trial Country: Canada Disclosure/Conflict of Interest: None to disclose Funding: Canadian Breast Cancer Research Alliance	Inferred: Change theory Pender's HPM Conducts the progress of health promotion interventions.	Design: Randomized Control Trial Purpose: Determine whether SCP utilization in BC patients improved patient-reported outcomes/health care utilization when transitioning care to PCP.	N= 408 N I=164 N C=173 MA intervention: 61.9 (SD: 10.2) MA control: 61 (SD: 10.2) TOT, I: TM: 47, BCS: 117, R:133, CT: 68, HT: 113 TOT C: TM: 42, BCS:131, R: 143, CT: 71, HT: 130 MFD, I: <24 mo.:70 >=24mo: 94 MFD, C: <24mo: 69 >=24mo: 104 Inclusion Criteria: early stage breast CA, no recurrence or secondary cancer. Completed primary >=3 months to	IV1: SCP receipt IV2: No SCP receipt DV1: CSD, DV2: HRQL DV3: PS DV4: CCC DV5: GA	Questionnaires at baseline, 3, 6, 18, and 34 months. Telephone interviews at 9, 15, and 21 months. Impact of Event Scale (IES), Profile of Mood States questionnaire (POMS), Physical and Mental Component SP-36 summary scales (PSC, MSC), the Medical Outcomes Study-Patient Satisfaction Questionnaire (MOS-PSQ), and the CCCQ	All analyses were performed with SAS version 9.1 or R version 2.7.1	DV1-5 No difference between control/intervention group.	LOE: II Strengths: generalizable to practice settings; sample size; looked at short-term and long-term benefit/sustainability of SCPs Limitations: adherence score based upon patient self-report; misclassified tests as routine when they are diagnostic; IES sensitivity Applicability/Feasibility: Further research must be conducted in determining the essential elements of SCPs that provide benefit for survivors prior to a widespread implementation.

AR: attrition rate, BC: breast cancer, BCS: breast conserving surgery, BRFSS: behavioral risk factor surveillance system, C: Control, CaSUN: cancer survivors' unmet needs measure, CC: colon cancer, CCC: continuity and coordination of care, CCCQ: coordination of care questionnaire, CDa: complete data CHC: childhood cancer, CS: cancer survivors, CSD: cancer specific distress, CT: chemo therapy, DS: disease stage, DV: dependent variable, EOL: end of life, EORT: European organization for research and treatment, ES: entire sample, F: female, FCI: follow-up care intervention, FU: follow-up, G: group, GA: guideline adherence, GC: gynecological cancer, GSI: global severity index, HC: health care, HPM: health promotion model, HRQL: health related quality of life, HT: hormone therapy, I: intervention, IOM: institute of medicine, IV: independent variable, N/n: number, M: male, MA: mean age, MFD: months from diagnosis, MS: marital status, PC: palliative care, PCP: primary provider, POSTCARE: patient-owned survivorship transition care for activated, empowered survivors, PR: peer reviewed, PRO: patient reported outcomes, PS: patient satisfaction, QLS: qualitative study, QTS: quantitative study, RCT: randomized control trial RT: radiation therapy, SCP: survivorship care plan, TM: total mastectomy, TOC: type of cancer, TOT: type of treatment U: unknown, y/o: years-old

			enrollment, Established PCP for FU care Exclusion Criteria: persistent complications of primary treatment, previously enrollment in continuous oncology FU, primary cancer other BC, shared PCP with another study participant AR:71					
Brennan, M.E. (2014). Survivorship care plans in cancer: a systematic review of care plan outcomes Country: Australia Disclosures/Conflict of Interest: unstated Funding: The Friends of The Mater Foundation	Inferred: Henderson Need Theory Qualify of life theory- based from Maslow's theory of needs.	Design: Systematic Review Purpose: Review evidence of SCP implementation in practice.	N= 2,286 participants. Articles n=10 n=5 RCT's n=5 non RCTs TOC: BC, CC, GC, CHC Mean age range: 37-62 Inclusion criteria: original studies evaluating written care plans for CS, and reporting HRQL, and SOC Exclusion criteria: articles evaluating SCP in metastatic disease, and studies that evaluated a single	IV1: paper based/online SCP IV2: oncologist/nurse/PCP delivered SCPs IV3: Other SCP templates DV1: Survivor distress DV2: CCC DV3: oncological outcomes DV4: ability to identify FU provider DV5: change in unmeet needs	Cancer Survivor Unmet Needs Scale Multiple likert scales EORT quality of life questionnaire Brief symptom inventory 18	"QualSyst" tool for SR Descriptive statistics, multivariate regression, t-test	No significant findings related to distress, care coordination, satisfaction, or cancer outcomes. SCPs improved survivor follow-up clinician identification (p=0.005). Higher Satisfaction with SCPs, understanding of SCP, and CCC (did not meet statistical significance)	LOE: I Strengths: heterogeneity in SCP content. Represent data from 2,288 cancer survivors. Limitation: small amount of heterogeneous literature; few RCTs. Lack of homogeneity between cancer type/ stage of disease. Inconsistency in evaluation tools. Ceiling effect in SCP satisfaction. Applicability: evidence supports increased patient satisfaction and

AR: attrition rate, BC: breast cancer, BCS: breast conserving surgery, BRFS: behavioral risk factor surveillance system, C: Control, CaSUN: cancer survivors' unmet needs measure, CC: colon cancer, CCC: continuity and coordination of care, CCCQ: coordination of care questionnaire, CDa: complete data CHC: childhood cancer, CS: cancer survivors, CSD: cancer specific distress, CT: chemo therapy, DS: disease stage, DV: dependent variable, EOL: end of life, EORT: European organization for research and treatment, ES: entire sample, F: female, FCI: follow-up care intervention, FU: follow-up, G: group, GA: guideline adherence, GC: gynecological cancer, GSI: global severity index, HC: health care, HPM: health promotion model, HRQL: health related quality of life, HT: hormone therapy, I: intervention, IOM: institute of medicine, IV: independent variable, N/n: number, M: male, MA: mean age, MFD: months from diagnosis, MS: marital status, PC: palliative care, PCP: primary provider, POSTCARE: patient-owned survivorship transition care for activated, empowered survivors, PR: peer reviewed, PRO: patient reported outcomes, PS: patient satisfaction, QLS: qualitative study, QTS: quantitative study, RCT: randomized control trial RT: radiation therapy, SCP: survivorship care plan, TM: total mastectomy, TOC: type of cancer, TOT: type of treatment U: unknown, y/o: years-old

			variable of care AR: N/A					self-reported understanding of survivorship care. Feasibility: SCPs took 1-4 hours to develop.
<p>Bulloch, K. J. (2015). Systematic approach to providing breast cancer survivors with survivorship care plans: a feasibility study</p> <p>Country: USA</p> <p>Disclosure/Conflict of Interest: Several authors provide disclosures</p> <p>Funding: American Society Grant</p>	<p>Inferred: Explanatory Theory</p> <p>Pender's HPM</p>	<p>Design: Pre/post feasibility study</p> <p>Purpose: 1. Assess feasibility of SCPs. 2. Determine if knowledge of diagnosis, treatment, and risk of long term adverse event improved post receipt of SCP.</p>	<p>N= 67 total sample CDa: n=51</p> <p>MA:, ES 55.9 MA, CDa: 56.8</p> <p>DS, ES: Stage 1: n=32 Stage 2: n=25 Stage 3: n=11</p> <p>DS, CDa: Stage 1: n=24 Stage 2: n=19 Stage 3: n=8</p> <p>TOT, ES: RT: n=43 C: n=36 HT: n=52</p> <p>TOT, CD: RT: n=36 CT: n=29 HT: n=39</p> <p>AR:16</p> <p>Setting: Smilow Cancer Hospital Breast Center at Yale –New Haven,</p>	<p>IV1: care prior to SCP IV2: care post SCP</p> <p>DV1: feasibility DV2: diagnosis knowledge DV3: treatment knowledge DV4: Knowledge of risk for long-term adverse effects.</p>	<p>Three self-administered surveys at baseline visit and two surveys at F/U visit.</p> <p>Impact of events scale, profile of mood states questionnaire, physical and mental component SF-36</p>	<p>Multivariable logistic regression analysis</p>	<p>DV2: improved understanding of cancer stage at F/U visit post SCP receipt (not significant)</p> <p>DV4: improved understanding of risk of leukemia at F/U visit post SCP receipt (p=0.0348)</p> <p>84% patient satisfaction with SCP</p>	<p>LOE: IV</p> <p>Strengths: First study of its kind</p> <p>Limitations: Small sample size; information was collected from single health care system (not a generalized population); adverse events were not personalized to treatment</p> <p>Applicability/feasibility: With the improvement in patient survivorship knowledge it is feasible to deliver SCPs to breast cancer survivors at their post-op visit.</p>

AR: attrition rate, BC: breast cancer, BCS: breast conserving surgery, BRFSS: behavioral risk factor surveillance system, C: Control, CaSUN: cancer survivors' unmet needs measure, CC: colon cancer, CCC: continuity and coordination of care, CCCQ: coordination of care questionnaire, CDa: complete data CHC: childhood cancer, CS: cancer survivors, CSD: cancer specific distress, CT: chemo therapy, DS: disease stage, DV: dependent variable, EOL: end of life, EORT: European organization for research and treatment, ES: entire sample, F: female, FCI: follow-up care intervention, FU: follow-up, G: group, GA: guideline adherence, GC: gynecological cancer, GSI: global severity index, HC: health care, HPM: health promotion model, HRQL: health related quality of life, HT: hormone therapy, I: intervention, IOM: institute of medicine, IV: independent variable, N/n: number, M: male, MA: mean age, MFD: months from diagnosis, MS: marital status, PC: palliative care, PCP: primary provider, POSTCARE: patient-owned survivorship transition care for activated, empowered survivors, PR: peer reviewed, PRO: patient reported outcomes, PS: patient satisfaction, QLS: qualitative study, QTS: quantitative study, RCT: randomized control trial RT: radiation therapy, SCP: survivorship care plan, TM: total mastectomy, TOC: type of cancer, TOT: type of treatment U: unknown, y/o: years-old

			<p>Inclusion criteria: confirmed diagnosis BC staged 1-3. BC surgery at stated setting, >18 y/o, English literacy</p> <p>Exclusion criteria: stage 0 or metastatic disease.</p>					
<p>Jefford, M. (2016). A randomized controlled trial of a nurse led supportive care package (SurvivorCare) for survivors of colorectal cancer</p> <p>Country: Australia</p> <p>Disclosures/Conflict of Interest/Funding: Denied financial relationships</p>	<p>Inferred: Social Cognitive Theory</p> <p>Pender's HPM</p>	<p>Design: Randomized Control Trial</p> <p>Purpose: Evaluate effectiveness of SCP/care package on psychological distress, HRQL, unmet info. needs, and psychosocial outcomes in CR CS.</p>	<p>N= 217 N I= 106 N C= 110</p> <p>Median age: 64 (M: 52% F:48%)</p> <p>TOC: CC(56%), RC (35%), OLS (10%)</p> <p>SOD: S1 (7%) , S2 (22%), S3 (71%)</p> <p>AR: 1</p> <p>Inclusion criteria: confirm diagnosis of CC or CR, stage I-III disease, rx w/ curative intent. >18 y/o, English speaking</p> <p>Exclusion criteria: cognitive/psychological impairment, determined too unwell to participate, hx of other malignancy with exception of non-</p>	<p>IV1: SurvivorCare IV2: Usual Care</p> <p>DV1: Psychological distress DV2: HRQL DV3: Change in Unmet needs.</p>	<p>BSI-18 and GSI</p> <p>European organization for research and treatment (EORTC QLQ C-30)</p> <p>Ideals of Survivorship care survey (self developed)</p> <p>CaSUN</p>	<p>SPSS statistics. Descriptive statistics T test (Mann- whitney U) and Chi- square tests as appropriate.</p> <p>Hochberg's modify Bonferroni test for primary outcome analysis.</p>	<p>No difference in Distress and HQOL between IV1 and IV2</p> <p>IV1 more satisfied with multiple aspects of post treatment care (p=<0.05 on 10 of 15 questions about perception of care)</p>	<p>LOE: II</p> <p>Strengths: validation of strong sensitivity and appropriateness of assessment tools. N>100, Diagnosis homogeneity.</p> <p>Limitations: Heterogeneity of baseline cancer distress/time since diagnosis.</p> <p>Applicability: Demonstration of intervention usefulness in elements of survivorship care.</p> <p>Highest usefulness in patients with higher CaSUN scores.</p> <p>Feasibility: Research needs to carefully identify study endpoints.</p>

AR: attrition rate, BC: breast cancer, BCS: breast conserving surgery, BRFS: behavioral risk factor surveillance system, C: Control, CaSUN: cancer survivors' unmet needs measure, CC: colon cancer, CCC: continuity and coordination of care, CCCQ: coordination of care questionnaire, CDa: complete data CHC: childhood cancer, CS: cancer survivors, CSD: cancer specific distress, CT: chemo therapy, DS: disease stage, DV: dependent variable, EOL: end of life, EORT: European organization for research and treatment, ES: entire sample, F: female, FCI: follow-up care intervention, FU: follow-up, G: group, GA: guideline adherence, GC: gynecological cancer, GSI: global severity index, HC: health care, HPM: health promotion model, HRQL: health related quality of life, HT: hormone therapy, I: intervention, IOM: institute of medicine, IV: independent variable, N/n: number, M: male, MA: mean age, MFD: months from diagnosis, MS: marital status, PC: palliative care, PCP: primary provider, POSTCARE: patient-owned survivorship transition care for activated, empowered survivors, PR: peer reviewed, PRO: patient reported outcomes, PS: patient satisfaction, QLS: qualitative study, QTS: quantitative study, RCT: randomized control trial RT: radiation therapy, SCP: survivorship care plan, TM: total mastectomy, TOC: type of cancer, TOT: type of treatment U: unknown, y/o: years-old

			melanotaneous skin cancer, and enrollment in a conflicting supportive care trial					
<p>Keesing, S. (2015). Cancer survivors' experiences of using survivorship care plans: a systematic review of qualitative studies</p> <p>Country: USA</p> <p>Disclosure/Conflict of Interest/Funding: None</p>	<p>Inferred: Self-care theory</p> <p>1. Addresses knowledge and experience</p> <p>2. Influences cancer patients' self-reliance and responsibility for care.</p> <p>Pender's HPM</p>	<p>Design: Systematic Review</p> <p>Purpose: Review and document current qualitative literature that examines CS's experience using SCPs.</p>	<p>N= 11 qualitative studies.</p> <p>Interview: n= 4, Focused groups: n= 6</p> <p>Action research: n= 1</p> <p>Range of number of participants: 7-40.</p> <p>TOC: BC: n= 7, CC: n= 2 other: n= 3</p> <p>Inclusion criteria: >= 18 y/o, publication 2000-2014, published in English</p> <p>Exclusion criteria: Abstract only, studies that examined palliative phase of disease, or experience of cancer treatment.</p> <p>AR: N/A</p>	<p>IV: Use of SCP</p> <p>DV : CS perspective on SCPs and experiences of SCP use in care.</p>	<p>KMET (close method 14 item)</p>	<p>Critical appraisal: Standard quality assessment criteria for evaluating primary research papers from a variety of fields by Kamet, lee and cook.</p>	<p>SCP: Significant reduction of duplicate materials, improved CCC, and increased communication between survivor and health care provider.</p>	<p>LOE: I</p> <p>Strengths: first published qualitative SR. 11 databases included. Utilized validated methods/tools for conducting SR.</p> <p>Limitations: Difference in amount of qualitative data.</p> <p>Applicability/Feasibility: SCPs found to be practical tool in survivorship care. Future research to examine practical issues related to delivery across a variety of care contexts.</p>

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<p>Kenzik, K. M. (2016). Treatment summaries and follow-up care instructions for cancer survivors: Improving survivor self-efficacy, and healthcare utilization</p> <p>Country: USA</p> <p>Disclosure/Conflict of Interest: None stated</p> <p>Funding: Department of Health and Human Services</p>	<p>Inferred: Social Cognitive Theory</p>	<p>Design: Cross-Sectional</p> <p>Purpose: Examine how treatment summaries (SCP) both written and verbal are associated with self-efficacy and healthcare utilization.</p>	<p>N= 441</p> <p>MA: 74.7 F(60%) M (40%)</p> <p>Education: LSE: 49%</p> <p>TOC: prostate and breast cancer</p> <p>Mean time from diagnosis: 4.6 years</p> <p>Setting: hospital based; 12 different sites across Alabama, Georgia, Mississippi, Florida, Tennessee</p> <p>AR = 0</p> <p>Inclusion Criteria: CS who had completed treatment, follow completion of initial survey and were >= 2 years</p> <p>Exclusion criteria: incomplete survey, < 2 years post treatment</p>	<p>IV1: Delivery of written summary of cancer treatment w/ SCP by health professional</p> <p>IV2: written summary of SCP w/o explanation.</p> <p>IV3: verbal delivery of FU care plan w/o written summary.</p> <p>DV 1: ER visits</p> <p>DV 2: hospitalizations</p>	<p>Stanford chronic illness self-efficacy scale</p> <p>Study pertinent developed questions: SCP type/delivery. ER visits/hospitalization in last year,</p>	<p>Primary analysis: 3 multiple linear regression models</p> <p>Exploratory analysis: Mediation analysis to estimate association between variables</p> <p>Post Hoc analysis</p>	<p>IV1: increased self-efficacy scores (B=0.72, SD=0.27, p=0.009) and decreased emergency room visits/hospitalization</p> <p>DV1-DV2 decreased significantly with IV1</p>	<p>LOE: IV</p> <p>Strengths: large sample size, evaluation of several HC sites. Evaluation of older cancer survivors. Use of validated measurement tool.</p> <p>Limitations: reliance on patient self-report of SCP type/delivery. Patient-provider relationship/recollection of information= influence of self-efficacy scores. Lack of insight to content or standardization of SCPs.</p> <p>Applicability/feasibility: Suggestion: SCPs influence survivor's behavior/health outcome.</p> <p>Future research: Examine how SCPs help survivors, identify how to effectively implement verbal SCP explanation</p>
<p>Klemanski, D. L. (2016). Survivorship care plan preferences of cancer survivors and health care</p>	<p>Inferred: Explanatory Theory</p>	<p>Design: Systematic Review</p> <p>Purpose: Describe and</p>	<p>N= 29 total</p> <p>Quantitative= 19</p> <p>RCT= 3</p> <p>Pre/post test= 1</p> <p>Survey with descriptive</p>	<p>IV: SCP use</p> <p>IV2: usual care</p> <p>Patient variables: DV 1: Survivorship experiences</p>	<p>Focus groups, individual interviews</p> <p>Mixed methods</p>	<p>Critical appraisal: Quality assessment tool for QTS</p> <p>Joanna Briggs</p>	<p>SCP: Improved CCC between PCP and oncologist.</p> <p>Improved survivor understanding of</p>	<p>LOE: I</p> <p>Strengths: large amount of heterogeneous data</p> <p>Limitations: mostly</p>

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<p>providers: a systematic review and quality appraisal of the evidence.</p> <p>Country: US Publication (included reviews published in Canada and Australia)</p> <p>Disclosure/Conflict of Interest/Funding: None</p>		<p>examine the use of treatment summaries and SCP in current practice, as well as critically appraise relevant literature regarding preferences and usefulness of SCP in practice.</p>	<p>analysis= 15 Qualitative= 10</p> <p>Study characteristics: Survivor perspectives (N=20) Cancer survivor perspective only (N=14)</p> <p>Survivor and provider perspective (N=6)</p> <p>TOC: BC (n=10) CC (n=3) GC (n=1), other malignancies (n=6)</p> <p>Settings: cancer centers, oncology clinics, tertiary care centers, community cancer centers</p> <p>Inclusion: QLS or QTS related to preference of items to be incorporated in SCPs, reported by CS, care givers, or health care providers, Studies published Jan 2005- Dec 2013, Original work/ PRJ, English,</p> <p>Exclusion: study addressed PC/hospice/EOL care, pertained survival and</p>	<p>DV 2: Quality of care DV 3: Satisfaction (with collaborative communication between care providers) DV4: Perceived gaps in CS care DV 5: Delivery of SCP</p> <p>Provider variables: DV 1 : Perceived barriers to SCP implementation DV 2: Role clarification in SCP DV 3: Confidence in management of CS care.</p>	<p>appraisal tool</p> <p>Transparent reporting of evaluation with non-randomized design</p>	<p>Institute's qualitative assessment and review instrument.</p>	<p>survivorship care.</p>	<p>exploratory studies. Narrow gender/TOC focus. Heterogeneity in SCPs format/HC settings.</p> <p>Applicability/feasibility: Improved follow-up care (provider/patient perspective).</p> <p>Future research: identify/prioritize patient preferences in survivorship care, and SCP delivery across settings</p>
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			mortality statistics, targeted sample was pediatric or adolescent oncology, secondary works. AR: N/A					
Kvale, E. A. (2016). Patient-centered support in the survivorship care transition: Outcomes from the patient-owned survivorship care plan intervention Country: USA Disclosure/Conflict of Interest: Three authors received support from National Institute of Health Funding: Grant support from American Cancer Society	Explicitly states: POSTCARE conceptual model; derived from chronic care model/IOM survivorship policies Pender's HPM	Design: Randomized Control Trial Purpose: Determine the impact that the POSTCARE intervention had on patient outcomes/care coordination.	N= 79 I: n=40 C: n=39 MA, I: 57.23 MA, C: 59.51 TOC: breast TOT, I: LNB: n=32 LND: n=17 CT: n=23 RT: n=27 S: n=40 TOT C; LNB: n=30 LND: n=9 CT: n=18 RT: n=26 S: n=39 Inclusion criteria: >= 19 y/o, non-metastatic disease, completion of treatment within one year Exclusion criteria: outside of one year of active treatment	IV 1: POSTCARE intervention IV 2: usual care DV1: HRQL DV2: Depression DV3: Self efficacy and self-management	Health literacy: Rapid estimate of adult literacy in medicine-short form. Comorbidity: Charleston comorbidity index HQOL: 36-item short-form health survey Depression: PHQ-9 Limitations, social role/activities: 4-item social/role activities limitation. Self-management: 13-item patient activation	SPSS: Version 22 and SAS version 9.4. Descriptive analysis: demographics and treatment characteristic. Chi-square test for comparison between groups regarding frequency. Student t test for within group comparison. Generalized linear model used to examine effect of intervention coordination and patient reported	IV 1: lower social role limitations (p=0.014), and higher self efficacy (0.07) . IV 1: higher self reported health (p=0.017). IV 1: Three HQOL domains had meaningful improvement at 3 mo. FU: physical role (p=0.009), bodily pain (p=0.03), emotional role (p=0.04).	LOE: II Strengths: examines several variables, use of valid measurements tools. Limitations: population (breast patients only); not generalizable. Small sample size. Limited power. Long-term effect not captured. Applicability: Support and emphasis of data about importance of providing a SCP and health care providers role in discussing content. Feasibility: Future research to identify how HC provider can deliver SCP (effectively, sensible, and with impact)

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					measure-short form. Self efficacy: Self efficacy for managing chronic disease 6-item scale	outcomes.		
<p>Mayer, D. K. (2015). Summing it up: an integrative review of studies of cancer survivor care plans</p> <p>Country: USA</p> <p>Disclosure/Conflict of Interest: None</p> <p>Funding: The University of North Carolina</p>	<p>Mentioned: Dohediam Model</p>	<p>Design: Integrative Review</p> <p>Purpose: Summarize current scientific knowledge, and empirical data regarding SCP in adult CS, and identification of knowledge gaps in survivorship care</p>	<p>N= 42 studies</p> <p>Populations: CS HCP</p> <p>Categories of Focus: 1.Content of SCP 2.Dissemination/ Implementation 3.Survivor/provider outcomes</p> <p>AR: 0</p> <p>Inclusion Criteria: results of empirical study, CS diagnosed at >= 18 y/o, relate to cancer and report findings that associated with SCPs</p> <p>Exclusion Criteria:</p>	<p>IV: SCP</p> <p>DV 1: SCP content DV 2: SCP dissemination and implementation DV3: survivor and provider outcomes</p>	<p>Interviews, focus groups, and multiple unspecified survey tools</p>	<p>PRISMA</p>	<p>Discrepancy between HC providers/survivors in desired SCP content</p> <p>Improved PCP-reported CCC/confidence in survivorship knowledge (p<0.05)</p> <p>Lack of info. on delivery preference Few studies found patients preferred delivery right before or directly after treatment.</p> <p>Only 12.5% of patients received SCP (10 cancer</p>	<p>LOE: I</p> <p>Strength: evaluation of a vast amount of evidence. Both provider and survivor perspectives evaluated.</p> <p>Limitations: 4 high level studies availability. Limited generalizability (lack of diversity). Weak testing of data measurement tools</p> <p>Applicability: Low SCP receptivity/ implementation</p> <p>Feasibility: Future research to address SCP methodology, content , and outcomes.</p>

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			abstracts or presentations, adult survivors of childhood cancer, and non-empirical data				programs)	
<p>Oancea, S. C. (2016). Psychological distress among adult cancer survivors: Importance of survivorship care plan.</p> <p>Country: USA</p> <p>Disclosure/Conflict of Interest/Funding: None</p>	<p>Inferred: Health Belief Model</p> <p>Pender's HPM</p>	<p>Design: Cross-sectional</p> <p>Purpose: To examine association between recipient of SCP and psychological distress in adult cancer survivors post treatment.</p>	<p>N= 3,191</p> <p>G1: CS 1-5 y from diagnosis N:1046 Median age: 58.85 F (n=610) M (n=436)</p> <p>Received FCI: n:789 Received TS: n:366</p> <p>G2: CS >5 y from diagnosis N:2145 Median age: 64.52 F (n=1463) M (n=682) EL: LTS: N=173 S: n=709 SC: n=573 CD or more: n=690 Received SCI: n=1424</p>	<p>IV 1: TS only IV: FCI only IV: TS + FCI IV 4: non TS or FCI</p> <p>DV 1: Psychological distress</p>	<p>Behavioral risk factor surveillance system questionnaire.</p> <p>Cancer survivorship and anxiety and depression modules</p>	<p>Descriptive statistics.</p> <p>Critical analysis: SAS b 9.4, using survey procedures.</p> <p>Multivariable weighted logistic regression (investigate association between variables)</p>	<p>Short-term cancer survivors: Distress 3x higher if only FCI receipt, as compared to FCI + TS (AOR= 3.14, 95% CI [1.29-7.65]).</p> <p>Long-term cancer survivors: distress was 2x higher only FCI receipt (AOR= 2.18, 95% CI [1.14-4.19]).</p>	<p>LOE: IV</p> <p>Strengths: sample size, first study to look at long-term distress.</p> <p>Limitations: underrepresentation of TS, but no FCI group. Pain severity/comorbid conditions not controlled or assessed. Questions subject to recall; potential bias</p> <p>Applicability: SCPs has potential to enhance short/long-term psychological well-being.</p>

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			<p>Received TS; n=611</p> <p>Setting: Telephone survey based from BRFSS registry</p> <p>Inclusion criteria: Cancer diagnosis at >=18 y/o, not pregnant at time of study, >1 year post diagnosis.</p> <p>Exclusion: incomplete survey completion</p>					<p>Feasibility: Future research to investigation SCP implementation barriers.</p>
<p>Palmer, S. C. (2015). Outcomes and satisfaction after delivery of a breast cancer survivorship care plan: Results of a multi-center trial</p> <p>Country: USA</p> <p>Disclosure/Conflict of Interest: Authors provided disclosure, but no conflict of interest</p> <p>Funding: Livestrong Foundation</p>	<p>Inferred: Theory Reasoned Action.</p> <p>Pender's HPM</p>	<p>Design: Perspective Cohort</p> <p>Purpose: Explore the outcomes associated with delivery of comprehensive SCP to BC survivors.</p>	<p>N= 139</p> <p>MA: 53.93</p> <p>Mean MFD: 3.43</p> <p>Stage at diagnosis: Stage 0: n=10 Stage 1: n=52 Stage 2 n=51 Stage 3 n=21</p> <p>TOT: CT: 93 HT: 96</p> <p>Mean SF-12 mental health score: 54.38 (sd:11.19)</p> <p>Mean SF-12 physical health score: 47.97 (sd:8.85)</p> <p>Setting: Seven NCI designated comprehensive cancer</p>	<p>IV1: Care prior to SCP</p> <p>IV2: SCP delivery</p> <p>DV1: SCP utilization</p> <p>DV2: satisfaction</p> <p>DV3: knowledge</p> <p>DV4: CCC</p>	<p>Quality of Life: Medical study short form (SF)- 12</p> <p>SCP materials: 16-item investigatory developed survey see table 2.</p> <p>Satisfaction: global satisfaction on 5-likert scale.</p> <p>Perceived coordination, knowledge, behavior was assessed (measurement tool not stated)</p>	<p>Weak description of statistical methods: software</p> <p>Descriptive statistics: Cronchbach's alpha, and t-test</p>	<p>SCP utilization: IV2: SCP use: 64% for decision to exercise, 62% for dietary changes, and 62% for directing FU care.</p> <p>SCP satisfactions: 90% satisfied</p> <p>Knowledge: IV2 improved perceived survivorship knowledge/ CCC (p=<0.001)</p>	<p>LOE: II</p> <p>Strengths: sample characteristics, cancer settings. Pre and post assessment, high retention, Standardized visits/materials</p> <p>Limitations: Quasi-experimental design, narrow demographic population, tools (self made). Self-report vs. chart abstraction</p> <p>Applicability: suggests SCPs/delivery standardization across an array of settings. Useful in new BC survivors.</p> <p>Feasibility: Success at all sites</p>

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			<p>centers and their community practices.</p> <p>Inclusion criteria: \geq 18 y/o, diagnosis and treatment of primary BC or DCI, completion of cancer therapy, and scheduled survivorship visit at SCOEN</p> <p>Exclusion criteria: unable to complete inform consent d/t barriers, and previous recipients of SCPs</p>					<p>suggests with institutional commitment, financial, and logistical support SCPs can be effectively delivered</p>
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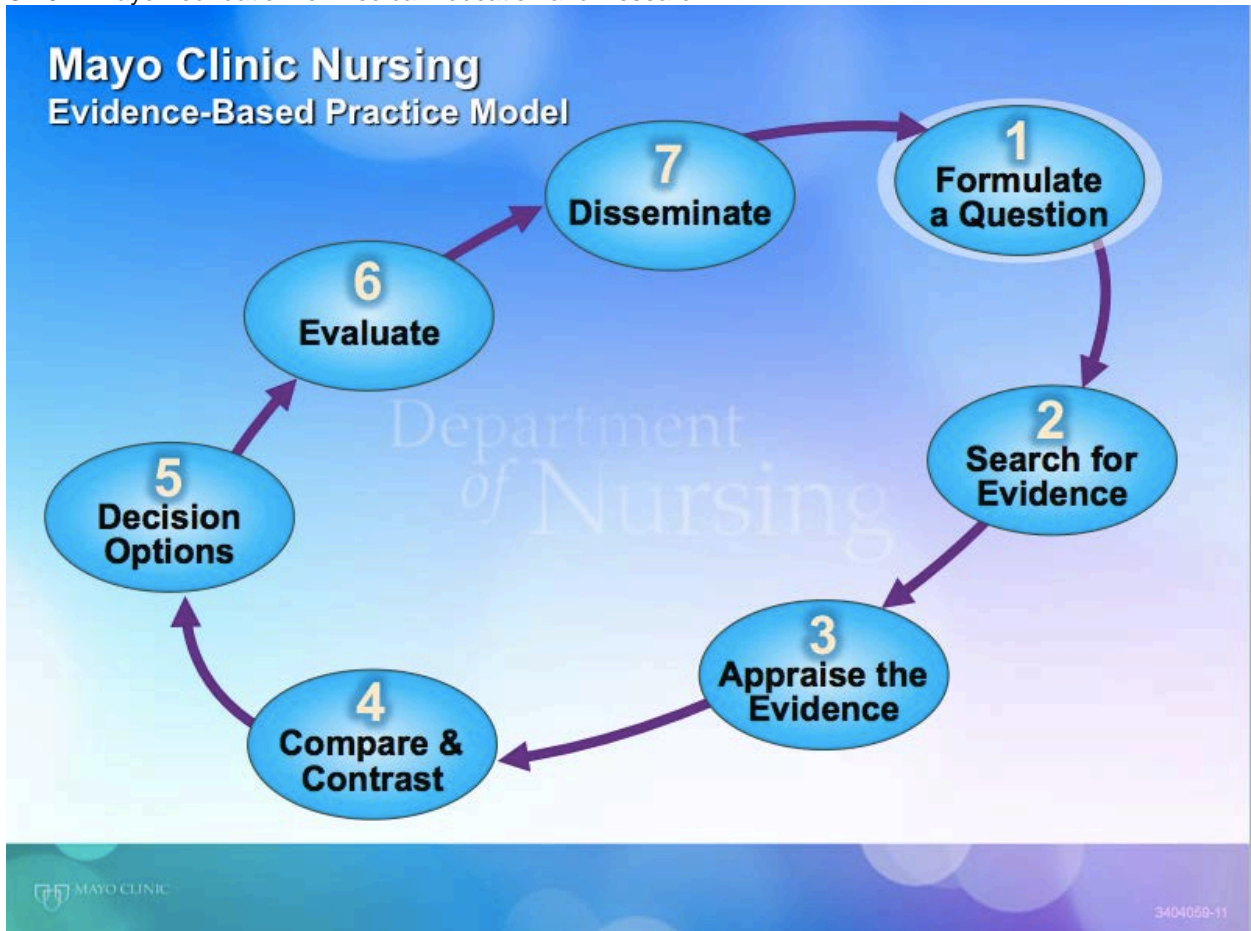
Appendix E
Synthesis Table

Studies	Boekhout	Brennan	Bulloch	Jefford	Keesing	Kenzik	Klemanski	Kvale	Mayer	Oancea	Palmer
Year	2015	2014	2015	2016	2015	2016	2016	2016	2015	2016	2015
LOE	II	I	VI	II	I	VI	I	II	I	VI	II
Design	RCT	SR	FS	RCT	SR	CS	SR	RCT	SR	CS	PCS
Length	24m	N/A	2m	6m	N/A	1d	N/A	3m	N/A	1d	3m
SCP	X	X	X		X	X	X		X	X	X
SCPSV				X				X			
TS						X	X			X	
QOL	NS			NS			NS	↑			
S	NS	↑		↑			↑		↑		↑
SCK		↑	↑						↑		↑
COC	NS	↑			↑		↑	NS	↑		↑
FUGRA	NS										
SD	NS	NS		NS			NS	↓		↓	
HPB											↑
SE						↑					

CS: cross-sectional study, COC: coordination of care, FS: feasibility study, FUGRA: follow-up guideline recommendation adherence, HPB: health promotion behaviors, LOE: level of evidence, NS: not significant, PC: perspective cohort study, QOL: quality of life, RCT: randomized control trial, S: satisfaction, SCK: survivorship care knowledge, SCP: survivorship care plan, SCPSV: survivorship care plan survivorship visit, SD: survivor distress, SE: self-efficacy, SR: systematic review, TS: treatment summary

Appendix F
Evidence-Based Practice Model

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Appendix G
CSI Questionnaire Analysis

Paired Samples Test

		Paired Differences			
		95% Confidence Interval of the Difference			
		Upper	t	df	Sig. (2-tailed)
Pair 1	Type - Type2	.333	.370	19	.716
Pair 2	Stage - Stage2	.215	.000	19	1.000
Pair 4	Prevent - Prevent2	.159	-.809	19	.428
Pair 5	Physical Effects - Physical Effects2	.263	.000	19	1.000
Pair 6	Prevent Physical Effects - Prevent Physical Effects2	.007	-2.042	19	.055
Pair 7	Treat Physical Effects - Treat Physical Effects2	.088	-1.453	19	.163
Pair 8	Emotional Effects - Emotional Effects2	.215	.000	19	1.000
Pair 9	Prevent Emotional Effects - Prevent Emotional Effects2	.189	-.438	19	.666
Pair 10	Treat Emotional Effects - Treat Emotional Effects2	.200	-.438	18	.667
Pair 11	Community Resources - Community Resources2	.260	-.767	19	.453
Pair 12	Family Risk - Family Risk2	.133	-1.287	18	.215
Pair 13	Family information - Family information2	.202	-1.073	18	.297
Pair 14	Survivorship care - Survivorship care2	.379	-.644	17	.528
Pair 15	Wellness - Wellness2	.349	-1.031	17	.317
Pair 16	Health Promotion - Health Promotion2	.121	-1.699	17	.108

Appendix H
Pre/Post CSI Questionnaire Averages

