Implementation of a Survivorship Care Plan Program in a Community-Based Oncology Clinic

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Authors' disclosures of conflicts of interest are found at the end of this article.

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Abstract

There is conflicting evidence from the small number of randomized controlled trials (RCTs) that have assessed the benefit of survivorship care plans (SCPs) on improving patient outcomes. Yet, published quasi-experimental and descriptive studies provide preliminary evidence suggesting that using survivorship care plans in practice may improve patient knowledge, decrease worry and anxiety, and lead to patient and primary care physician satisfaction. Given the conflicting evidence and the paucity of RCTs, further research is needed to more fully explore the effect of SCP on patient outcomes. To address this knowledge gap, an SCP program was implemented in a community-based oncology clinic and used quality improvement methodology to assess the effect on patient knowledge of diagnosis, treatment, and follow-up, and to understand patients' satisfaction with the current SCP program. A total of 30 cancer patients were recruited in Southeast Michigan to participate in an SCP quality improvement project and completed surveys to evaluate the SCP program. Data were collected between December 2017 and March 2018. We observed a statistically significant (p = .028) difference between pre- and postintervention (survivorship care plan visit) knowledge scores about cancer diagnosis, treatment received, and follow-up recommendations. Moreover, participants were satisfied with the survivorship care plan and visit.

Fourteen million cancer survivors are living in the United States today. Due to improved early detection and treatment, this number is expected to double by 2030 (Centers for Disease Control and Prevention, 2016). This increased survival brings its own challenges: Survivors need preparation to transition from active treatment back into the community. Cancer survivors report feeling unprepared for this transition as they complete active treatment and want additional information about their diagnosis, treatment, plan for follow-

up care, long-term or late treatment side effects, health maintenance activities, and likelihood of recurrence (Burg, Lopez, Dailey, Keller, & Prendergast, 2009; Royak-Schaler et al., 2008).

The transition from cancer treatment to follow-up is further complicated by poor provider-patient communication and the disconnect between oncologists and primary care physicians (Snyder et al., 2008). Survivors may receive suboptimal care (e.g., incorrect ordering of follow-up testing) that does not follow standards of practice compared with their age-matched controls without a diagnosis of cancer, due in part to the miscommunication among providers and between the provider and survivor (Earle & Neville, 2004; Snyder et al., 2008; Surapaneni, Singh, Rajagopalan, & Hageboutros, 2012).

These issues (patient transition to follow-up after active treatment and suboptimal communication) have been addressed by the Institute of Medicine (IOM), which recommends that each individual who has completed active cancer treatment receive a comprehensive care summary and follow-up plan reflecting their treatment and addressing a myriad of posttreatment needs (IOM, 2006). The accrediting board for oncology practices, the Commission on Cancer (COC), has stressed the importance of individuals receiving care plans by mandating a condition for a cancer center to keep its accreditation: Beginning January 2015, cancer centers must provide a survivorship care plan (SCP) to each patient completing curative-intent chemotherapy (COC, 2012). The following sections outline the state of the science regarding survivorship care.

LITERATURE REVIEW

The IOM report, *From Cancer Patient to Cancer Survivor: Lost in Transition,* has fueled a body of research (Brothers, Easley, Salani, & Andersen, 2013; Curcio, Lambe, Shneider, & Khan, 2012; Grunfeld et al., 1996, 2006, 2011; Hershman et al., 2013; Palmer et al., 2015; Park, Bae, Jung, & Kim, 2011) that focuses on SCP implementation in clinical settings and on SCP-associated patient outcomes. Several randomized controlled trials (RCTs) provide high-level research evidence that SCPs improve patient outcomes such as emotional health (Hershman et al., 2013) and knowledge

about healthy lifestyles (e.g., diet, exercise, alcohol intake; Greenlee et al., 2016). However, although a few studies provide evidence that SCPs can be beneficial to patients, Brennan, Gormally, Butow, Boyle, and Spillane (2014), in their systematic review of 10 SCP studies, reported that none of the five RCTs included in the review that compared an SCP with usual care revealed significant or sustained improvements in distress, QOL, quality of care/care coordination, or other oncologic outcomes.

While there is a lack of RCT-based evidence supporting SCP implementation, several quasi-experimental, case, and descriptive studies provide preliminary evidence that SCPs may improve patients' knowledge and perceived self-efficacy, as well as lessen worrying (Collie et al., 2014; Colella & Gejerman, 2013; Curcio et al., 2012; Gates, Seymour, & Krishnasamy, 2012; Hill-Kayser, Vachani, Hampshire, Di Lullo, & Metz, 2013; Jefford et al., 2011; Palmer et al., 2015; Rosales et al., 2014). Furthermore, many studies provide preliminary evidence of high survivor satisfaction with SCPs (Colella & Gejerman, 2013; Collie et al., 2014; Curcio et al., 2012; Jefford et al., 2011; Rosales et al., 2014). In a systematic review of 10 SCP studies, discussed previously in relation to patient outcomes, Brennan and colleagues (2014) reported an overall high level of survivor-reported satisfaction, specifically in the five quasi-experimental and descriptive studies.

In summary, there is conflicting evidence from the small number of RCTs that have assessed the benefit of SCPs on improving patient outcomes. Published quasi-experimental and descriptive studies provide preliminary evidence suggesting that using SCPs in practice may improve patient knowledge, decrease worry and anxiety, facilitate communication between health-care providers, and lead to patient satisfaction. Given the conflicting evidence and paucity of published RCTs, further research is needed to more fully explore the effect of SCP on patient outcomes. To address this knowledge gap, an SCP program was implemented in a community-based oncology clinic, and preliminary data were collected to understand the effect on patient knowledge of diagnosis, treatment, and follow-up, and to understand patients' satisfaction with the current SCP pro-

gram. The following sections outline the methods and overarching theory that are relevant to completing this project.

METHODS

Purpose

The purpose of this quality improvement (QI) project was to implement a process for delivering an SCP to patients with cancer undergoing curative-intent treatment at four Integrated Health Associates (IHA) Hematology/Oncology clinics.

Objectives

The first objective was to identify and address barriers to the implementation of an SCP program in a community-based outpatient oncology clinic. The second was to develop and implement an SCP program at a community-based outpatient oncology clinic. The third was to obtain preliminary data about whether a SCP will (1) improve patient knowledge about cancer diagnosis, treatment, and follow-up guidelines; and (2) influence patient satisfaction.

Design

This QI project used a single-arm pre- and post-test design. Since survivorship care plans are mandated by oncology governing boards, we used an iterative and participatory process to engage clinic staff and providers in the SCP implementation process.

Theoretical Framework

The implementation team incorporated the Plan, Do, Check, Act cycle (PDCA; see Figure 1) as a guide for its function. This framework was modified to reflect the strategies used in the current study. The PDCA cycle was developed by W. Edwards Deming in 1951 and provides guidance for completing a quality improvement project (American Society for Quality, 2019).

Setting and Sample

This project was completed at a community-based oncology clinic in Southeastern Michigan. At these clinics, patients receive care for benign hematologic, malignant hematologic, and oncologic conditions in four different locations across the region. Thirty cancer outpatients (selected based on the timing when treatment was completed) who had completed curative intent chemotherapy and/or radiation participated in this project. Human subject approval was obtained by the St. Joseph Mercy Institutional Review Board.
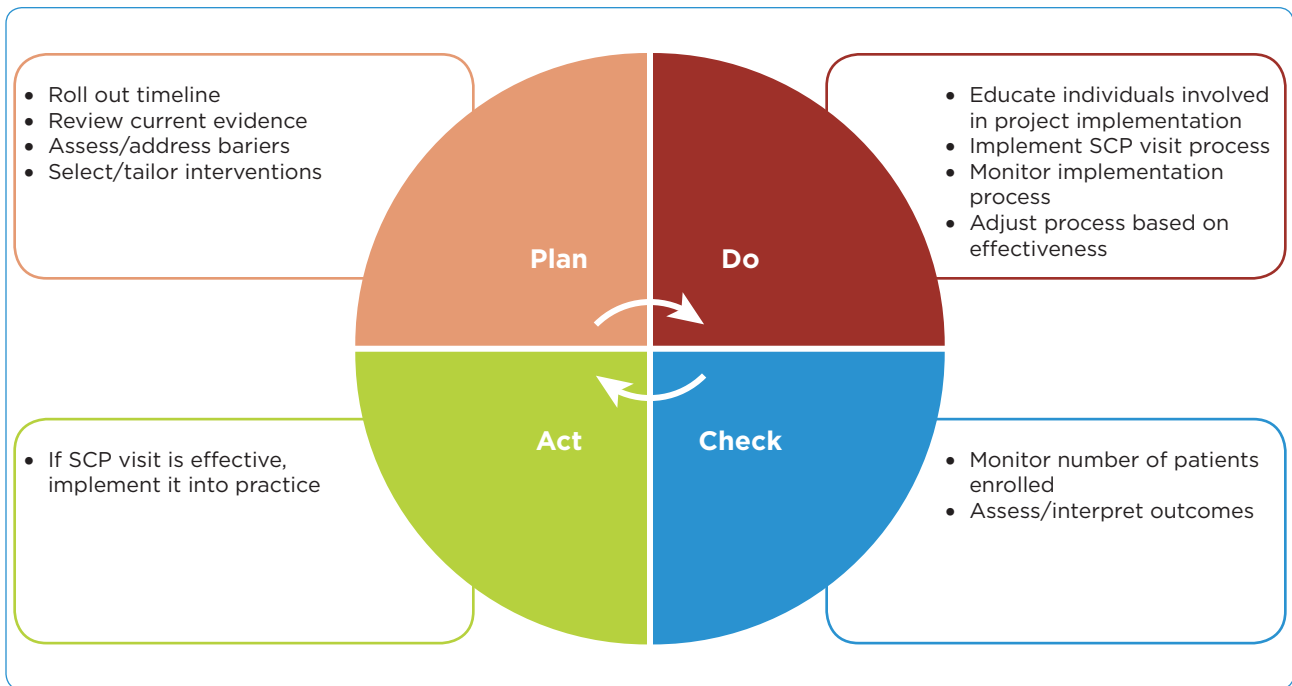

Figure 1. Plan, Do, Check, Act Cycle (American Society for Quality, 2019). SCP = survivorship care plan.

Inclusion/Exclusion Criteria

Individuals eligible for this study must have been able to speak, read, and write English, had access to email, and were at least 18 years of age. Eligible participants had been diagnosed with any type of cancer with or without surgical intervention and completed curative intent chemotherapy and/or radiation within the past 3 months. Individuals ineligible for this study were diagnosed with new or relapsed cancer since completing curative intent chemotherapy and/or diagnosed with incurable stage IV disease or acute myelogenous leukemia.

Survivorship Care Plan Software: EQUICARE CS

EQUICARE Coordination Software (ECS), an oncology patient management software program (compatible with Varian's ARIA OIS and Elekta's MOSAIQ OIS and originally purchased by the practice due to its compatibility with Varian's ARIA OIS and its meeting the Meaningful Use standards) designed to help health-care providers navigate patients through their journey of cancer screening, treatment, and survivorship, was used to create the SCP (2014). For this project, the SCP document included information about the diagnosis (ICD 10 diagnosis code, pathology, stage at diagnosis) and past medical/surgical and cancer treatment history, a National Comprehensive Cancer Network (NCCN) 5-year follow-up plan, and disease-specific content (e.g., diet recommendations for colorectal/anal cancer patients or aromatase inhibitor evidence-based screening recommendations for breast cancer patients).

IMPLEMENTATION STRATEGIES

Meetings

First, the problem—evidence to support SCP visits—and implementation plan were presented to key stakeholders/decision-makers (practice manager, head oncologist, and medical assistant [MA] manager) at an initial meeting. Next, a project implementation team (principal investigator [PI], one nurse practitioner, the office manager, MA manager, and one MA) helped facilitate the implementation of this project. The implementation team's goals were to identify (Table 1) and overcome barriers to the implementation process, tailor the survivorship care plan to the office context, and monitor the implementation process.

Education

The next step was to conduct a 90-minute onsite education session at each of the four sites with the MAs, nurse practitioners, and PAs. Thirty minutes of the session were spent giving an overview of the evidence to support the value of survivorship care plans, followed by a 60-minute session focused on how to use the ECS program.

Data Collection Tools

The next step was to monitor the outcomes of the SCP using pre- and posttest surveys. Demographic information (i.e., age, gender, race, race, education) was collected electronically using Qualtrics. The demographic survey was modified from one that was previously developed by Reuber, Toerien, Shaw, and Duncan (2015) and completed by participants at the time of individual consent. Disease and cancer-specific (i.e., cancer disease, stage, treatment received, follow-up recommendations) infor-

Table 1. Barriers to the Implementation Process and Plans to Address Them

Barrier	Plan to Address
Buy-in	Stakeholder meeting
Office not currently providing care plan as mandated by accrediting organizations	Stakeholder meeting, team meeting, education by PI to medical secretaries, medical assistants, providers
Lack of knowledge of Equicare program	Education by PI to medical assistants, nurse practitioners/PAs
Continued incorporation of care plan program and visit into practice	Iterative work-flow process design during project and debriefing following the project with PI, key stakeholders, and end users

Note. PI = principal investigator.

Knowledge Survey

Please tell us what YOU know about your cancer. We understand that you may not be sure of some answers—do your best to answer. If you are not sure, it is OK to select "I don't know."

1. What stage was your cancer?

a. Stage 0

b. Stage I

c. Stage II

d. Stage III

e. Stage IV

f. I don't know

2. Was cancer ever found in your lymph nodes?

a. Yes

b. No

c. I did not have my lymph nodes checked.

d. I don't know

3. Did you have surgery to remove your cancer?

a. Yes

b. No

c. I don't know

4a. Did you receive chemotherapy for your cancer?

a. Yes

b. No

c. I don't know

4b. Please tell us the names of the chemotherapy you received.
(choose all that apply or enter an answer in the space provided)

a. Abraxane (nab-paclitaxel)

b. Adriamycin (doxorubicin)

c. Adrucil (5-fluorouracil)

d. Alimta (pemetrexed)

e. Blenoxane (bleomycin)

f. Cerubidine (daunorubicin)

g. Cytoxan (cyclophosphamide)

h. Doxil (pegylated liposomal doxorubicin)

i. DTIC-Dome (dacarbazine)

j. Ellence (epirubicin)

k. Eloxatin (oxaliplatin)

l. Gemzar (gemcitabine)

m. Mexate (methotrexate)

n. Mitomycin (mutamycin)

o. Oncovin (vincristine)

p. Paraplatin (carboplatin)

q. Platinol (cisplatin)

r. Taxol (paclitaxel)

s. Taxotere (docetaxel)

t. Temodar (temozolomide)

u. Velban (vinblastine)

v. Xeloda (capecitabine)

w. Other. Please specify:

_____

5a. Did you receive targeted therapy for your cancer?

a. Yes

b. No

c. I don't know

5b. Please tell us the names of the targeted therapy you received (choose all that apply or enter an answer in the space provided)

a. Erbitux (cetuximab)

b. Herceptin (trastuzumab)

c. Perjeta (pertuzumab)

d. Rituxan (rituximab)

e. Other. Please specify:

_____

6a. Did you receive hormone therapy for your cancer?

a. Yes

b. No

c. I don't know

Figure 2. Adapted WiSDOM-B Survey (Rocque et al., 2014).

6b. Please tell us the names of the hormone therapy you received. (choose all that apply or enter an answer in the space provided)

a. Arimidex (anastrozole)

b. Aromasin (examestane)

c. Femara (letrozole)

d. Soltamox (tamoxifen citrate)

e. Other. Please specify:

_____

7. Did you receive radiation for your cancer?

a. Yes

b. No

c. I don't know

8. Does your cancer provider want you to have a blood draw in the next 6 months?

a. Yes

b. No

c. I don't know

9. Does your cancer provider want you to have a scan (CT, mammogram, MRI, PET, x-ray) in the next 6 months?

a. Yes

b. No

c. I don't know

10. Has your cancer provider recommended that you return for a check-up in the next 6 months?

a. Yes

b. No

c. I don't know

Figure 2. Adapted WiSDOM-B Survey (Rocque et al., 2014).

mation was extracted from the electronic medical record and entered into Qualtrics by the PI.

Rocque and colleagues' WiSDOM-B (adapted) survey (Figure 2) was used to assess patient knowledge (Rocque et al., 2014). For the current project, the survey was adapted to more appropriately evaluate the current study objectives and patient context, and it included 10 multiple choice questions: two about diagnosis, five about treatment, and three about follow-up. The reliability and validity of the survey have not been evaluated (Rocque et al., 2014). However, there is evidence of satisfactory face validity based on researchers' opinions that the survey includes all major components of survivorship knowledge: diagnosis, treatment, long-term toxicities and side effects, and follow-up recommendations (Rocque et al., 2014). In the current project, the survey was completed electronically using Qualtrics at the time of consent and 1-month post survivorship visit. The 1-month post survivorship visit survey was emailed to the participant, and the PI called the patients once if the survey was not completed within 1 week.

Patient satisfaction with the SCP was assessed using the postassessment patient acceptability and satisfaction survey (Berry et al., 2011). The original 7-item survey uses a 5-point Likert-type scale to assess patients' satisfaction with a computerized quality-of-life screening program (Berry et al., 2011). Survey questions were adapted to this project's objectives and context. The internal consistency reliability of the original version was satisfactory, but it has not been reestablished for the slightly revised version used in this study. Patient satisfaction surveys were collected via an emailed Qualtrics link sent to participants 1 month after the SCP visit.

Data Analysis

All statistical analyses were conducted using SPSS 24. Descriptive statistics (mean, standard deviation, range) were calculated for the variables of age and Eastern Cooperative Oncology Group (ECOG) status. Frequency was calculated within subcategories of the variables of gender, education, cancer diagnosis, cancer stage, and treatment.

Individual patient WiSDOM surveys were graded for accuracy by the PI twice (on 2 separate

days). The total score was the total number answered correctly out of 10 questions. Descriptive statistics (total score mean, standard deviation, and range) were calculated for each survey timepoint (preintervention and 1-month post intervention). The Wilcoxon signed-ranks test was used to compare baseline and 1-month postintervention scores, with statistical significance defined as a one-tailed $p \leq .05$. Given the nature of this small exploratory QI project, a power analysis was not conducted.

Individual patient adapted postassessment patient acceptability and satisfaction survey items were summed to obtain a total score. Descriptive and frequency statistics (total score and individual item percentage, mean, and standard deviation) were calculated.

RESULTS

Demographics
Thirty individuals consented to participate: two developed incurable cancer prior to their survivorship visit and were no longer considered eligible; four dropped out (never completed their survivorship visit); and four never completed the postintervention survey. The sample's demographic characteristics are summarized in Table 2. The participants' mean age was 57.83 (range, 29–80 years old). Most of the participants were female (n = 17; 56.7%), Caucasian (n = 25; 83.3%), and had attended some college (n = 8; 26.7%). Most participants (n = 13; 43.3%) had been diagnosed with breast cancer. While cancers were diagnosed at every possible stage (0–4), participants were most frequently diagnosed at stage 3 (n = 10; 33.3%).

Knowledge Survey
The pre- and postintervention knowledge survey results, including individual item and total scores, are reported in Table 3. The mean number of correctly answered preintervention knowledge survey questions was 7.77 out of 10 (standard deviation, 1.3; range, 5–10). There was a statistically significant increase ($p = .028$) in postintervention knowledge scores after the intervention (mean, 8.2 out of 10; standard deviation, 1.11; range, 6–10). Following the intervention, the proportion of correctly answered questions was higher for the questions testing knowledge about stage at diagnosis, lymph node involvement, treatment re-

ceived, hormone treatment, and follow-up recommendations. Fewer patients answered questions correctly about treatment received and follow-up recommendations for provider check-ups.

Satisfaction Survey
The satisfaction survey results are reported in Table 4. The total mean score was 28.65 out of 35 (standard deviation, 5.09). Mean individual item scores ranged from 3.65 to 4.55. The "How understandable were the follow-up recommendations?" question received the highest score, while the "How much do you enjoy the survivorship care plan? and "How helpful was the survivorship care plan?" questions received the lowest scores.

DISCUSSION
We used a QI process to deliver SCPs to patients with cancer undergoing curative-intent treatment. We also obtained preliminary data about whether the SCP improves patient knowledge regarding cancer diagnosis, treatment, and follow-up guidelines, and how it influences patient satisfaction. Following the SCP visit, participants demonstrated improved knowledge of cancer diagnosis, treatment, and follow-up as measured in pre- and postintervention surveys. Also, participants were satisfied with the SCP and SCP visit.

The results from this QI project align with other published literature. For example, the trial by Palmer and colleagues (2015) found a statistically significant improvement in how patients perceived their own knowledge about survivorship and follow-up, and Hill-Kayser and colleagues (2013) described patient-reported improved knowledge and health participation. Regarding participants' satisfaction with the SCP visit, our findings are similar to the results of a systematic review of 10 SCPs that reported an overall high level of reported satisfaction with the SCP (Brennan et al., 2014).

There were several limitations of this QI project. First, despite the valuable information and data gained, we are unable to make a solid conclusion regarding patient-perceived satisfaction and knowledge gained following SCP implementation. In order to confirm or refute these findings that SCPs can improve knowledge and cancer survivors are generally satisfied with SCPs, a larger, adequately powered study is needed, which compares the SCP

Table 2. Demographics

Characteristic (N = 30)	Mean (SD)	Range
Age	57.83 (11.53)	29-80
ECOG	0.43 (0.5)	0-1

Characteristic	n	Percentage
Gender		
Male	13	43.3
Female	17	56.7
Race		
African American	5	16.7
Caucasian	25	83.3
Education		
Some high school, no diploma	3	10
High school graduate, diploma or the equivalent (for example, GED)	4	13.3
Some college credit, no degree	8	26.7
Trade/technical/vocational training	6	20
Associate degree	2	6.7
Bachelor's degree	2	6.7
Master's degree	6	20
Doctorate degree	1	3.3
Cancer diagnosis		
Anal	1	3.3
Breast	13	43.3
Colon	1	3.3
Head and neck	3	10
Lung	4	13.3
Lymphoma	1	3.3
Pancreatic	1	3.3
Prostate	1	3.3
Rectal	4	13.3
Testicular	1	3.3
Cancer stage		
0	3	10
1	7	23.3
2	5	16.7
3	10	33.3
4	5	16.7

Note. ECOG = Eastern Cooperative Oncology Group; SD = standard deviation.

visit with the current standard care. In addition, future studies should employ a different process for collecting survey data, strengthen end-user (office staff) buy-in, and facilitate a process where all eligible survivors complete a survivorship visit. Furthermore, the data grading process for the knowledge surveys could have been strengthened by having study staff, not the PI, grade the surveys.

One significant limitation was that there was a high attrition rate (28.57%). Out of the 30 original participants, only 20 completed the postintervention surveys. The four participants who did not complete the survivorship visit may have not completed it for a number of reasons. First, the office staff might not have fully supported and encouraged the importance of this visit. Consequently, it is possible that when the scheduled SCP visits were missed or rescheduled, that office staff may not have clearly communicated the importance of rescheduling and attending this visit. In addition to office staff concerns, the survivors may still have been recovering from active treatment-related side effects and may not have had the time or energy to attend an SCP visit.

Furthermore, the low postintervention survey response rate (83.33% of the eligible participants) was likely related to a number of patient factors, including: participants still recovering from intense active treatment; some participants returning to work and balancing recovery and work-life; and participants potentially not checking or responding to emails in a timely fashion. The overall low postintervention survey response rate possibly resulted in response bias. The individuals who took the surveys may have been more technologically knowledgeable and in turn, more knowledgeable about their cancer diagnosis, treatment, and follow-up plan when compared with those who did not complete the survey. Specifically, the four nonresponders' highest levels of schooling were associate degree (1) and trade school (3), and if these participants had responded, the postintervention scores might have been different.

In addition to the high attrition rate, another important limitation was that up to eight different clinicians presented the SCPs to the study participants: some were nurse practitioners, some were PAs, and some were registered nurses. This diverse pool of educators/presenters could impact

Table 3. Knowledge Survey

		Pre-intervention (N = 30)			Post-intervention (N = 20)		
		%	Mean	SD	%	Mean	SD
Cancer stage at diagnosis	Correct	73.3%			75%		
	Incorrect	26.7%			25%		
	Total		0.73	0.45		0.75	0.44
Lymph node involvement	Correct	80%			90%		
	Incorrect	20%			10%		
	Total		0.8	0.41		0.9	0.31
Treatment: Surgery	Correct	100%			100%		
	Incorrect	0%			0%		
	Total		1	0.00		1	0.00
Treatment: Chemotherapy	Correct	63.3%			75%		
	Incorrect	36.7%			15%		
	Total		0.63	0.49		0.75	0.44
Treatment: Targeted therapy	Correct	73.3%			70%		
	Incorrect	26.7%			30%		
	Total		0.73	0.45		0.7	0.47
Treatment: Hormone therapy	Correct	80%			85%		
	Incorrect	20%			15%		
	Total		0.8	0.41		0.85	0.37
Treatment: Radiation	Correct	100%			100%		
	Incorrect	0%			0%		
	Total		1	0.00		1	0.00
Follow-up: Blood test	Correct	60%			55%		
	Incorrect	40%			45%		
	Total		0.6	0.50		0.55	0.51
Follow-up: Scan	Correct	53.3%			80%		
	Incorrect	46.7%			20%		
	Total		0.53	0.51		0.8	0.41
Follow-up: Provider visit	Correct	93.3%			90%		
	Incorrect	6.7%			10%		
	Total		0.93	0.25		0.9	0.31
Total Score Correct		Range	Mean	SD	Range	Mean	SD
		5–10	7.77	1.30	6–10	8.20	1.11
Wilcoxon signed ranks pre (n = 20)/postintervention (n = 20)		Z			*p*-value (1-tailed)		
		-1.91			0.028		

Note. SD = standard deviation.

the quality of education and how survivors receive such information, depending on their level of trust and rapport with the presenters. Finally, the sample population included a disproportionate number of individuals who were Caucasian and diagnosed with breast cancer. The sample was

Table 4. Adapted Postsssessment Patient Acceptability and Satisfaction Survey

	Post-intervention satisfaction survey (N = 20)		
	%	Mean	SD
1. How was the survivorship care plan for you to use?	1 (very difficult) 0%		
	2 0%		
	3 20%		
	4 25%		
	5 (very easy) 55%		
	Total	4.35	0.81
2. How understandable were the follow-up recommendations?	1 (difficult to understand) 0%		
	2 0%		
	3 20%		
	4 5%		
	5 (easy to understand) 75%		
	Total	4.55	0.83
3. How much did you enjoy the survivorship care plan?	1 (not at all) 5%		
	2 5%		
	3 40%		
	4 20%		
	5 (very much) 30%		
	Total	3.65	1.14
4. How helpful was the survivorship care plan?	1 (very unhelpful) 5%		
	2 5%		
	3 40%		
	4 20%		
	5 (very helpful) 30%		
	Total	3.65	1.14
5. Was the amount of time it took to review the survivorship care plan acceptable?	1 (very unacceptable) 5%		
	2 5%		
	3 20%		
	4 10%		
	5 (very acceptable) 60%		
	Total	4.15	1.23

Note. SD = standard deviation.

homogenous, and thus the results are less generalizable to other cancer populations.

IMPLICATIONS FOR ADVANCED PRACTITIONERS

Cancer survivors often feel unprepared at the completion of active treatment and look to advanced practitioners for guidance in transitioning to survivorship. It is imperative that advanced practitioners understand the importance of guiding patients at this crucial point in time and ensure that they are incorporating the current best practice in cancer diagnosis, treatment, and follow-up, and effectively communicating evidence-based guide-

Table 4. Adapted Postsssessment Patient Acceptability and Satisfaction Survey (cont.)

	Post-intervention satisfaction survey (N = 20)			
		%	Mean	SD
6. How would you rate your overall satisfaction with the survivorship care plan?	1 (very dissatisfied)	0%		
	2	0%		
	3	25%		
	4	40%		
	5 (very satisfied)	35%		
	Total		4.10	0.79
7. How would you rate your overall satisfaction with the survivorship care plan visit?	1 (very dissatisfied)	0%		
	2	0%		
	3	25%		
	4	30%		
	5 (very satisfied)	45%		
	Total		4.20	0.83
Total Score		**Range**	**Mean**	**SD**
		21–35	28.65	5.09

Note. SD = standard deviation.

lines. An SCP may be used as an educational tool to help facilitate this communication to cancer survivors. Effective communication between the oncology provider and patient, and between the oncology provider and primary care provider, may lead to earlier diagnosis of recurrence and better management of late treatment-related side effects.

The Plan, Do, Check, and Act cycle, and knowledge obtained from this study will be incorporated into the continued survivorship program. A more effective workflow to provide patients with SCPs was developed, including a process to identify when the patient should be scheduled for a survivorship visit, who should schedule or order the visit, and how the visit is laid out. Furthermore, buy-in was gained from key individuals in the practice for continued incorporation into the daily workflow. For individuals who do not make it to an in-person survivorship visit, phone visits will be implemented. In regards to staff (end-users), created educational materials will continue to be incorporated into new staff training.

CONCLUSION

Preliminary evidence from this quality improvement project suggests a SCP can improve survivor knowledge about cancer diagnosis, treatment, and follow-up, and individuals are generally satisfied with SCPs and SCP visits. Future research with larger, more diverse samples are needed to more fully understand the impact of SCPs on a wide range of patient outcomes. ●

Disclosure

References

American Society for Quality. (2019). What is the plan-do-check-act (PDCA) cycle? Retrieved from https://asq.org/quality-resources/pdca-cycle

Berry, D., Blumenstein, B., Halpenny, B., Wolpin, S., Fann, J. R., Austin-Seymour, M.,...McCorkle, R. (2011). Enhancing patient-provider communication with the electronic self-report assessment for cancer: A randomized trial. *Journal of Clinical Oncology, 29*(8), 1029–1035. https://doi.org/10.1200/JCO.2010.30.3909

Brennan, M., Gormally, J. F., Butow, P., Boyle, F. M., & Spillane, A. J. (2014). Survivorship care plans in cancer: A systemic review of care plan outcomes. *British Journal of Cancer, 111,* 1899–1908. https://doi.org/10.1038/bjc.2014.505

Brothers, B., Easley, A., Salani, R., & Andersen B. (2013). Do survivorship care plans impact patients' evaluations of care? A randomized evaluation with gynecologic oncology patients. *Gynecologic Oncology, 129*(3), 554–558. https://doi.org/10.1016/j.ygyno.2013.02.03

Burg, M. A., Lopez, E. D., Dailey, A., Keller, M. E., & Prendergast, B. (2009). The potential of survivorship care plans in primary care follow-up of minority breast cancer patients. *Journal of General Internal Medicine, 24*(2), S467–S471. https://doi.org/10.1007/s11606-009-1012-y

Centers for Disease Control and Prevention. (2016). Basic information for cancer survivors. Retrieved from https://www.cdc.gov/cancer/survivorship/basic_info/survivors/index.htm

Colella, J. & Gejerman, G. (2013). Survivorship health information counseling for patients with prostate cancer. *Urologic Nursing, 33*(6), 273–280. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/24592520

Collie, K., McCormick, J., Waller, A., Railton, C., Shirt, L., Chobanuk, J.,...Giese-Davis, J. (2014). Qualitative evaluation of care plans for Canadian breast and head-and-neck cancer survivors. *Current Oncology, 21*(1), 18–28. https://doi.org/10.3747/co.21.1698

Commission on Cancer. (2012). Cancer program standards 2012: Ensuring patient-centered care. Retrieved from https://www.facs.org/~/media/files/quality%20programs/cancer/coc/programstandards2012.ashx

Curcio, K. R., Lambe, C., Schneider, S., & Khan, K. (2012). Evaluation of a cancer survivorship protocol: Transitioning patients to survivors. *Clinical Journal of Oncology Nursing, 16*(4), 400–406. https://doi.org/10.1188/12.CJON.400-406

Earle, C. C., & Neville, B. A. (2004). Under use of necessary care among cancer survivors. *Cancer, 101*(8), 1712–1719. https://doi.org/10.1002/cncr.20560

Equicare Health. (2014). Equicare Health introduces new version of cancer survivorship software, EQUICARE CS. Retrieved from http://equicarehealth.com/equicare-news/equicare-health-introduces-new-version-cancer-survivorship-software-equicare-cs/

Gates, P., Seymour, J. F., & Krishnasamy, M. (2012). Insights into the development of a nurse-led survivorship care intervention for long-term survivors of Hodgkin lymphoma. *Australian Journal of Cancer Nursing, 13*(1), 4–10.

Greenlee, H., Sardo Molmenti, C. L., Crew, K. D., Awad, D., Kalinsky, K., Brafman, L.,...Hershman, D. L. (2016). Survivorship care plans and adherence to lifestyle recommendations among breast cancer survivors. *Journal of Cancer Survivors, 10*(6), 956–963. https://doi.org/10.1007/s11764-016-0541-8

Grunfeld, E., Julian, J. A., Pond, G., Maunsell, E., Coyle, D., Folkes, A.,...Levine, M. N. (2011). Evaluating survivorship care plans: Results of a randomized, clinical trial of patients with breast cancer. *Journal of Clinical Oncology, 29*(36), 4755–4762. https://doi.org/10.1200/JCO.2011.36.8373

Grunfeld, E., Levine, M. N., Julian, J. A., Coyle, D., Szechtman, B., Mirsky, D.,...Whelan, T. (2006). A randomized controlled trial (RCT) of routine follow-up for early stage breast cancer: A comparison of primary care versus specialist care. *Journal of Clinical Oncology, 24*(6), 848–855. https://doi.org/10.1200/JCO.2005.03.2235

Grunfeld, E., Mant, D., Yudkin, P., Adewuyi-Dalton, R., Cole, D., Stewart, J.,...Vessey, M. (1996). Routine follow up of breast cancer in primary care: Randomized trial. *BMJ, 313*(7058), 665–669. https://dx.doi.org/10.1136%2Fbmj.313.7058.665

Hershman, D., Greenlee, H., Awad, D., Kalinsky, K., Maurer, M., Kranwinkel, G.,...Crew, K. (2013). Randomized controlled trial of a clinic-based survivorship intervention following adjuvant therapy in breast cancer survivors. *Breast Cancer Research and Treatment, 138*(3), 795–806. https://doi.org/10.1007/s10549-013-2486-1

Hill-Kayser, C., Vachani, C., Hampshire, M. K., Di Lullo, G., & Metz, J. M. (2013). Impact of internet-based cancer survivorship care plans on health care and lifestyle behaviors. *Cancer, 119*(21), 3854–3860. https://doi.org/10.1002/cncr.28286

Institute of Medicine. (2006). *From cancer patient to cancer survivor: Lost in transition* (pp. 9–186). Washington, DC: The National Academic Press.

Jefford, M., Lotfi-Jam, K., Baravelli, C., Grogan, S., Rogers, M., Krishnasamy, M.,...Schofield, P. (2011). Development and pilot testing of a nurse-led posttreatment support package for bowel cancer survivors. *Cancer Nursing, 34*(3), e1–e10. https://doi.org/10.1097/NCC.0b013e3181f22f02

Palmer, S., Stricker, C., Panzer, S., Arvey, S. A., Baker, K. S., Casillas, J.,...Jacobs., L. A. (2015). Outcomes and satisfaction after delivery of a breast cancer survivorship care plan: Results of a multicenter trial. *Journal Oncology Practice, 11*(2), e222–e229. https://doi.org/10.1200/JOP.2014.001404

Park, J., Bae, S., Jung, Y., & Kim, K. (2011). Quality of life and symptom experience in breast Cancer survivors after participating in a psychoeducational support program: A pilot study. *Cancer Nursing, 35,* e34–e41. https://doi.org/10.1097/NCC.0b013e318218266a

Rocque, G., Wisinski, K., Buhr, K., Froeschner, J., Jones, N., Donohue, S.,...Tevaarwerk, A. (2014). Development and evaluation of a survey to assess survivor knowledge change after survivorship care plans: WiSDOM-B (Wisconsin Survey of cancer DiagnOsis and Management in Breast cancer). *Journal of Cancer Education, 29*(2), 270–277. https://doi.org/10.1007/s13187-013-0591-9

Rosales, A., Byrne, D., Burnham, C., Watts, L., Clifford, K. Zuckerman, D. S.,...Beck, T. (2014). Comprehensive survivorship care with cost and revenue analysis. *Journal Oncology Practice, 10*(2), e81–e85. https://doi.org/10.1200/JOP.2013.000945

Royak-Schaler, R., Passmore, S. R., Gadalla, S., Hoy, M. K., Zhan, M., Tkaczuk, K.,...Hutchison, A. P. (2008). Exploring patient-physician communication in breast cancer care for African American women following primary treatment. *Oncology Nursing Forum, 35*(5), 836–843. https://doi.org/10.1188/08.ONF.836-843

Reuber, M., Toerien, M., Shaw, R., & Duncan, R. (2015). Delivering patient choice in clinical practice: A conversation analytic study of communication practices used in neurology clinics to involve patients in decision-making. *Health Services and Delivery Research, 3*(7), 1–159. https://doi.org/10.3310/hsdr03070

Snyder, C. F., Garrett-Mayer, E., Brahmer, J. R. Carducci, M. A., Pili, R., Stearns, V.,...Wu, A. W. (2008). Symptoms, supportive care needs, and function in cancer patients: How are they related? *Quality of Life Research, 17*(5), 665–677. https://doi.org/10.1007/s11136-008-9331-8

Surapaneni, R., Singh, P., Rajagopalan, K., & Hageboutros, A. (2012). Stage I lung cancer survivorship: Risk of second malignancies and need for individualized care plan. *Journal Thoracic Oncology, 7*(8), 1252–1256. https://doi.org/10.1097/JTO.0b013e3182582a79