

# Survivorship Care Plans: Health Actions Taken and Satisfaction After Use

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**OBJECTIVES:** To examine the use of and assess patient satisfaction with survivorship care plans (SCPs).

**SAMPLE & SETTING:** 189 cancer survivors recruited from five cancer treatment center locations (Avera Cancer Institute in Aberdeen, Mitchell, Sioux Falls, and Yankton; Sanford Cancer Center in Sioux Falls) and one auxiliary specialty center (Urology Specialists in Sioux Falls), all in South Dakota.

**METHODS & VARIABLES:** A written survey was completed by participants before and three months after receiving an SCP. Associations between demographics and cancer-related characteristics and use of the SCP were evaluated using chi-square tests. Logistic regression was used to determine factors associated with any use of the SCP, health actions attributable to the SCP, and satisfaction with the SCP.

**RESULTS:** The most frequently reported uses of the SCP were to share with spouse or partner, inform about symptoms, and ask physician or nurse about concerns. SCP use, health actions taken, and satisfaction with the SCP were associated with gender, marital status, and main cancer type.

**IMPLICATIONS FOR NURSING:** Nurses should promote SCPs because they are valued and used by survivors for follow-up care.

**KEYWORDS** cancer survivorship; survivorship care plan; follow-up care; satisfaction

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Individuals who complete active treatment for cancer may benefit from a survivorship care plan (SCP) that includes information to support prevention of and screening for new cancers, surveillance for cancer spread or recurrence, and health promotion resources (Hewitt, Greenfield, & Stoval, 2005). An SCP can also facilitate care coordination among healthcare providers (HCPs), leading to greater understanding of provider roles in shared care for survivors for whom cancer-related symptoms coexist with multiple chronic conditions (Hewitt et al., 2005).

The SCP is endorsed by a number of professional bodies for survivors of cancer, including the Commission on Cancer and the Institute of Medicine (known now as the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine). The former includes the SCP in its cancer program guidelines (Commission on Cancer, 2016), and the latter specifically identifies the SCP and its vital importance in the transition from active cancer treatment to post-treatment care, as well as emphasizes the role of the SCP in cancer survivors' long-term survival and quality of life (Hewitt et al., 2005).

An essential goal of the SCP is to facilitate communication among survivors, their family members and caregivers, and their HCPs about active treatment details, follow-up care, and other resources that may be necessary to cancer survivorship management (Birken et al., 2018). Although early Institute of Medicine recommendations supported the use of SCPs, adoption by HCPs has not been widespread (Forsythe et al., 2013; Salz & Baxi, 2016). Although a study by Donohue et al. (2015) indicated that HCPs (N = 72) who were aware of and used SCPs generally agreed that they were necessary to effectively care for patients, a later study by Donohue et al. (2019) of 40 HCPs treating breast cancer survivors

indicated that most were not aware that the survivor had an SCP in his or her possession. Comprehensive reviews of the literature on SCPs found that the typical components of SCPs were consistent with Institute of Medicine recommendations (Daudt et al., 2014; Jacobsen et al., 2018), but the time at which patients received the SCP varied, ranging from within one year of treatment to beyond one year after completion of active treatment (Jacobsen et al., 2018). The Institute of Medicine recommendations would imply that earlier receipt of the SCP would increase its utility for survivors (Hewitt et al., 2005).

Cancer survivors' satisfaction with SCPs has also been the subject of numerous studies. A study of 58 patients with breast cancer ( $n = 48$ ) and colorectal cancer ( $n = 10$ ) reported that 46 patients were very or completely satisfied with their SCP, and 53 patients found their SCP useful and easy to understand (Sprague et al., 2013). Other studies have also reported high levels of satisfaction with SCPs. Jacobsen et al. (2018), in a literature review of 13 randomized and 11 nonrandomized studies, found that the majority of survivors who received and used an SCP reported positive levels of satisfaction.

SCPs can contribute to decision making about health behaviors, such as exercise, diet, and the type and frequency of medical testing (Palmer et al., 2015). A study by Palmer et al. (2015) found general agreement among 139 cancer survivors that SCPs were useful, informative, and reassuring, but that they were used less commonly to assist in searches for information or to identify resources to provide support and assistance. A study by Hill-Kayser et al. (2013) described the effectiveness of SCPs on lifestyle behaviors and other factors. Of the 298 cancer survivors who completed a one-month follow-up survey after receiving the plan, 54% reported that they would make or planned to make a positive lifestyle or behavior change, most often suggesting that they would modify their diets and increase their amount of exercise. In addition, 61% of survivors reported that the SCP changed the way they participated or planned to participate in their health care because they were prompted to discuss concerns with their healthcare team.

Contributions of the SCP to post-treatment management of cancer survivors are predicated on the premise that optimal care is achieved when patients have access to information about their treatment needs that is presented in a manner that will facilitate taking action (van de Poll-Franse, Nicolaije, & Ezendam, 2017). Therefore, to support the position that SCPs are

a vital resource for post-treatment cancer care, more data on the significance of their use must be gathered. Specifically, a comprehensive understanding of how SCPs are used would support the continued recommendation to provide them to survivors post-treatment. As part of a larger investigation, this study aimed to examine the value of SCPs (use and health actions taken) and assess patient satisfaction with the SCP.

## Methods

### Sample and Setting

Five cancer treatment centers in two large health systems (Avera Cancer Institute in Aberdeen, Mitchell, Sioux Falls, and Yankton; Sanford Cancer Center in Sioux Falls) and one auxiliary specialty center (Urology Specialists in Sioux Falls), all located in South Dakota, agreed to recruit patients for this study as part of their involvement in the South Dakota Survivorship Program. These six locations serve a large population of cancer survivors, with an estimated 1,800 survivors per year who are eligible to receive SCPs. All participating locations agreed to provide SCPs using Commission on Cancer Standard 3.3, which offers guidance related to the information needed for HCPs to create an SCP and the delivery of the SCP to survivors of cancer (Commission on Cancer, 2016). The SCP was required to include four basic sections: summary of treatment, potential late and long-term effects, signs of cancer recurrence, and follow-up care instructions. However, each site could provide SCPs created using a template best suited to its patient population.

Cancer survivors meeting the following criteria were considered clinically eligible to receive an SCP:

- Had been diagnosed and/or received first course of treatment, all or in part, at one of the six participating locations
- Had been diagnosed with stage I, II, or III cancer (plus ductal carcinoma in situ for the centers accredited by the National Accreditation Program for Breast Centers [Avera Cancer Institute Sioux Falls and Sanford Cancer Center])
- Had been treated with curative intent for initial cancer occurrence
- Had completed active therapy

Patients with urogenital cancer who had received only surgery were included for three of the participating locations (Avera Cancer Institute Sioux Falls, Sanford Cancer Center, and Urology Specialists). Cancer survivors who were unable to complete informed consent, were aged younger than 18 years, or who had previously received an SCP were excluded from study participation.

Eligible participants were provided with a study packet that consisted of a letter of invitation, a consent form, and an initial survey (prestudy survey). The packet was delivered either by mail two weeks prior to a scheduled visit to receive an SCP or at the cancer treatment center if an eligible participant was waiting to be seen for the post-treatment survivorship visit to receive an SCP. Consenting participants who returned the prestudy survey were asked to complete a poststudy survey three months later. Study procedures were reviewed by the South Dakota State University Institutional Review Board and the Avera Institutional Review Board. Informed consent was obtained from each study participant. Individual survivors' data were deidentified to maintain confidentiality.

### Measures

As previously noted, two study-specific surveys were designed to address the underlying aims and were reviewed by staff at the South Dakota Department of Health and HCPs at each of the treatment sites. The prestudy survey was designed to gather information prior to the survivor's receipt of the SCP and consisted of questions assessing participant demographics and cancer-related characteristics. The poststudy survey was completed three months after the prestudy survey and assessed participants' perceptions of the SCP, such as readability and comprehension; it included questions about their use of the SCP, health actions taken based on the SCP, and satisfaction with follow-up care information that was provided in the SCP. A survey/study ID number was used to link the responses to the two surveys.

**Participant demographics and cancer-related characteristics:** Participant demographics included gender, age, race and ethnicity, education, marital status, household income, health insurance coverage, and miles traveled to receive cancer care. Cancer-related characteristics included provision of navigation services, type and stage of cancer, and cancer treatment received.

**Outcome variables:** Three outcome variables of interest were operationalized based on responses to poststudy survey questions:

- Use of the SCP; seven uses for the SCP were identified in the survey. Three response options (yes, no, N/A) were provided. N/A responses were considered to be no responses.
- Health actions taken; nine health actions were identified. Two response options (no, the health action has not been taken; yes, the health action has been taken) were provided.

**TABLE 1. Sample Characteristics (N = 189)**

Characteristic	n	%
<b>Age (years)</b>		
40 or younger	6	3
41-55	41	22
56-65	63	33
66-80	67	35
81 or older	5	3
Not reported	7	4
<b>Cancer classification</b>		
Breast	92	49
Female reproductive	53	28
Male reproductive	24	13
Not classified	20	11
<b>Education<sup>a</sup></b>		
Grades 1-8	1	1
Grades 9-11	1	1
Grade 12 or GED	50	26
College 1-3 years	81	43
College 4 or more years	55	29
Not reported	1	1
<b>Gender</b>		
Female	155	82
Male	34	18
<b>Household income (\$)</b>		
Less than 20,000	17	9
20,000-34,999	18	10
35,000-49,999	35	19
50,000-74,999	40	21
75,000-99,999	24	13
100,000-149,999	24	13
150,000-199,999	8	4
200,000 or greater	4	2
Not reported	19	10
<b>Insurance status<sup>b</sup></b>		
Private	125	66
Medicare	81	43
Medicaid	9	5
Tricare	6	3
Do not know	2	1
No coverage	1	1
Not reported	2	1
<b>Marital status</b>		
Married or domestic relationship	135	71
Divorced	20	11
Widowed	20	11

*Continued on the next page*

**TABLE 1. Sample Characteristics (N = 189)  
(Continued)**

Characteristic	n	%
<b>Marital status (continued)</b>		
Never married	13	7
Not reported	1	1
<b>Navigation services provided</b>		
Yes	82	43
No	53	28
Do not know	48	25
Not reported	6	3
<b>Race</b>		
White	186	98
American Indian or Alaska Native	1	1
Other	2	1
<b>Self-reported cancer stage</b>		
Ductal carcinoma in situ	11	6
I	76	40
II	38	20
III	19	10
Do not know	33	18
Multiple stages selected	11	6
Not reported	1	1
<b>Self-reported cancer treatment<sup>c</sup></b>		
Surgery	157	83
Radiation therapy	106	56
Chemotherapy	69	37
Hormone therapy	47	25

<sup>a</sup> Describes highest level of education attained; grades 1–8 represents elementary school, grades 9–11 some high school, grade 12 or GED high school graduate, college 1–3 years some college or technical school, and college 4 or more years college graduate.

<sup>b</sup> Patients could report multiple insurance types.

<sup>c</sup> Patients could report multiple treatments.

**Note.** Because of rounding, percentages may not total 100.

- Satisfaction with follow-up care information found in the SCP; satisfaction was evaluated with the following question: Overall, how satisfied are you with the cancer follow-up care information in your survivorship care plan? A five-point, Likert-type scale ranging from 1 (not at all satisfied) to 5 (extremely satisfied) was used.

### Data Analysis

Demographic and cancer-related characteristics of patients are reported as frequencies (number and

percentage of participants). Associations between the three outcome variables and demographic and cancer-related characteristics were analyzed using chi-square tests. For all chi-square analyses, statistical significance was defined as  $p \leq 0.01$  to adjust for multiple test error. For chi-square analysis, each outcome variable was dichotomized: use of the SCP as yes and no, with any response of N/A classified as no; health actions taken as yes and no; and satisfaction with follow-up care information found in the SCP as not satisfied (not at all satisfied, slightly satisfied, or moderately satisfied) and satisfied (very satisfied or extremely satisfied).

Logistic regression was used to determine factors associated with any use of the SCP, any health actions attributable to the SCP, and satisfaction with follow-up information. For these analyses, any use was defined as a yes response to one or more of the seven uses for the SCP identified on the survey, any health action was defined as a yes response to one or more of the nine health actions identified on the survey, and satisfaction was dichotomized as previously defined. Statistical significance was  $p \leq 0.05$ ; each significant factor is reported as an odds ratio with a 95% confidence interval. SAS, version 9.4, was used for all statistical analyses.

### Results

A total of 334 observations were included in the data set. Of those, 189 participants met the criteria of providing data for baseline and three months after receipt of the SCP. The sample was largely female and White, with more than half of the participants aged 45–65 years (see Table 1). Almost all participants had completed high school or some college or technical school. Most participants were married or in another domestic relationship and had an income level above the poverty line, which is defined by the U.S. Department of Health and Human Services (2019) as \$25,750 for a family of four. Breast and female reproductive cancers were the most frequently reported cancer types, and most participants reported that they had been diagnosed with stage I or stage II cancer.

### Use of the Survivorship Care Plan

The three most frequently reported uses of the SCP were to share it with their spouse or partner, to inform themselves about symptoms, and to ask their physician or nurse about concerns (see Table 2). The least frequently reported use of the SCP was to share it with their primary care provider. Table 3 lists participants' responses concerning actions attributed

to the SCP. Chi-square test results linking SCP use and demographic variables resulted in one statistically significant association: A greater proportion of patients who were married or who had a domestic partner reported using the SCP (see Table 4). Other demographic variables were not significantly associated with use of the SCP (race and ethnicity could not be included in the analysis). None of the cancer-related characteristics were significant.

The logistic regression model for any use of the SCP resulted in only one variable with statistically significant findings: any action attributable to the SCP follow-up care information (see Table 5). Patients who reported taking any one of the nine identified health actions were 11 times more likely to report having used the SCP.

#### Any Health Action Attributable to the Survivorship Care Plan

No demographic or cancer-related characteristics were statistically significantly associated with undertaking a health action. The logistic regression model for any health action attributable to the SCP resulted in two variables with statistically significant findings: female reproductive cancer as the main cancer and any use of the SCP. Patients who reported having been diagnosed with female reproductive cancer were 4.4 times more likely to have undertaken one or more health actions, and patients who reported any use of the SCP were 11.1 times more likely to report having undertaken a health action.

#### Satisfaction With the Survivorship Care Plan

The results of chi-square testing of satisfaction and demographic variables resulted in one statistically significant association: A greater proportion of men reported not being satisfied with the SCP. Other demographic variables were not significant. Among the cancer-related characteristics, one variable, surgery as a cancer treatment, was significantly associated with satisfaction with the SCP. Patients who had had surgery reported higher levels of satisfaction with the SCP than patients who had not had surgery.

The logistic regression model for satisfaction with the follow-up care information included in the SCP resulted in three variables with statistically significant findings: any use of the SCP, report of feeling more in control of follow-up care, and having male reproductive cancer as the main condition. Patients who reported using the SCP were 4.3 times more likely to be satisfied with the follow-up care information provided in the SCP. In addition, patients who reported

feeling more in control of their follow-up care were 5.2 times more likely to be satisfied with the follow-up care information provided in the SCP, and patients with male reproductive cancer as their main condition were 4.4 times less likely to be satisfied with the follow-up care information provided in the SCP.

#### Discussion

The current study assessed the value of the SCP by measuring its use when it has been provided and when healthy lifestyle actions are taken by a cancer survivor because of recommendations offered within the SCP. Responses to a survey distributed to 189 cancer survivors three months after receiving an SCP formed the basis of these findings.

The results of this study found that 77% of survivors reported use of the SCP for one or more of seven

**TABLE 2. Use of Survivorship Care Plan (N = 189)**

Variable	n	%
<b>Ask physician or nurse about concerns</b>		
Yes	84	44
No	105	56
<b>Find referrals for follow-up care</b>		
Yes	36	19
No	153	81
<b>Inform about symptoms</b>		
Yes	94	50
No	95	50
<b>Search information online</b>		
Yes	40	21
No	149	79
<b>Share with family members at risk for cancer</b>		
Yes	52	28
No	137	73
<b>Share with primary care provider</b>		
Yes	29	15
No	160	85
<b>Share with spouse or partner</b>		
Yes	99	52
No	90	48
<b>Note.</b> Because of rounding, percentages may not total 100.		

identified purposes. The most frequently reported use was sharing the SCP with a spouse or partner. Chi-square analysis found a significant association between use of the SCP and marital status, indicating that more survivors who are married or who have a domestic partner reported using the SCP. Research clearly indicates that follow-up care involves more than just the cancer survivor and that sharing this document with a spouse or partner provides helpful information for engaging him or her in the post-treatment care process (Saita, Acquati, & Molgora, 2016). One in five survivors, a notable number, did not report use of the SCP in any way. Additional follow-up with this group of individuals could offer insights to HCPs regarding specific approaches that might encourage survivors to share their SCPs with

a supportive person, giving them the same benefits as those who do share their SCPs with significant others.

In contrast to sharing SCPs with significant others, only 15% of survivors reported sharing their SCP with their primary care provider, bypassing an important opportunity to discuss any post-treatment concerns they may have with this provider. Previous studies confirm that SCPs often do not reach primary care providers (Birken et al., 2018; Donohue et al., 2015, 2019). Findings from the current study suggest that the cancer survivor may not be the best person to initiate a discussion about the SCP with his or her primary care provider. Given the importance of coordination of care in post-treatment, identifying the best process to ensure that all providers with responsibility for care receive this document is essential.

Multivariate analyses further highlighted other important benefits of using the SCP. Cancer survivors reporting SCP use were 11 times more likely to have taken a constructive health action. Previous research has acknowledged the association between making positive lifestyle changes and receiving a diagnosis of cancer (Greenlee et al., 2016). The current study extends this idea and identifies the enabling role that the SCP plays in encouraging positive lifestyle changes. Overall, 84% of survivors reported taking a health action that they attributed to the SCP. Participants' frequently reported actions included getting regular checkups, eating healthier, being more physically active, and scheduling preventive cancer screenings. Multivariate analysis also found that having a diagnosis of female reproductive cancer was a significant factor that indicated a higher likelihood of taking health actions as a result of SCP follow-up care information.

Use of the SCP was also found to be a significant contributor to patient satisfaction with the follow-up care information provided by the SCP. Survivors who reported SCP use were four times more likely to be satisfied with the document. The clinical literature is replete with studies that demonstrate the importance of patient satisfaction in increasing patients' willingness to participate in their care (Vahdat, Hamzehgardeshi, Hessam, & Hamzehgardeshi, 2014). However, the multivariate analysis also found that having a diagnosis of male reproductive cancer was a significant factor in satisfaction with follow-up care information provided in the SCP. Patients with male reproductive cancer were four times less likely to be satisfied with this information. Chi-square analysis demonstrated a significant association between gender and satisfaction: Men reported lower levels of

**TABLE 3. Actions Attributed to Survivorship Care Plan (N = 189)**

Variable	n	%
<b>Eat healthier</b>		
Yes	110	58
No	79	42
<b>Get regular checkups</b>		
Yes	112	59
No	77	41
<b>Maintain healthy weight</b>		
Yes	84	44
No	105	56
<b>Become more physically active</b>		
Yes	100	53
No	89	47
<b>Schedule preventive cancer screenings</b>		
Yes	98	52
No	91	48
<b>Stop or limit alcohol use</b>		
Yes	21	11
No	168	89
<b>Stop smoking or using smokeless tobacco</b>		
Yes	17	9
No	172	91
<b>Other changes</b>		
Yes	7	4
No	182	96

satisfaction with the follow-up care information provided in the SCP. Factors contributing to lower satisfaction with the SCP, including the information needs of survivors of male reproductive cancers, is an area that warrants additional exploration.

Another noteworthy finding from the current study concerns the role of navigation services. In this study, patients receiving an SCP largely reported that they either did not receive navigation services or did not know if they had received them. Navigation services were also not found to be statistically significant regarding SCP information use, health actions taken, or reported satisfaction with the SCP. Additional research is needed to understand patient knowledge and perceptions about navigation services and the contribution of these services to post-treatment follow-up care.

Finally, neither chi-square analysis nor logistic regression found a significant relationship between (a) use of the SCP, taking healthy actions attributed to the SCP, or satisfaction with the SCP and (b) age, education, or income level. This suggests that the value of the SCP is not limited to these specific cancer survivor groups, provided that issues of health literacy are adequately addressed.

The study findings indicate that SCPs contain useful information for survivors of cancer that is used by them to address follow-up care concerns, to seek additional information about their care, and to take actions that are considered to be healthy lifestyle changes. When the SCP is used for these purposes, satisfaction with the SCP as a care document increases.

### Limitations

The current study includes a small, homogeneous population drawn from a single state. Given this singular focus and the differences in access, availability of resources, and practice variations based on geography, the generalizability of these findings to other geographic areas and to countries and health systems outside of the United States may be affected. Understanding the role that geographic variation and/or cultural differences may play in the use of SCPs to advance post-treatment care would be helpful in furthering knowledge about this important patient education and communication document.

Homogeneity also exists within the racial and cultural representation of participants. Participants were largely White and married or with a domestic partner; a majority also had high levels of education. These factors may affect perceptions about cancer and willingness to use the SCP. Race and ethnicity could not be included in this study's statistical analysis because

of extremely low numbers of minority populations. However, there is literature to suggest that SCPs may need to be tailored to specific racial, ethnic, and

**TABLE 4. Association Between Outcome Variables and Demographics and Cancer-Related Characteristics**

Variable	$\chi^2$	p
<b>Use of survivorship care plan</b>		
Gender	2.17	0.1402
Age	0.95	0.329
Educational level	2.28	0.1307
Marital status	7.76	0.0053*
Income	2.65	0.1035
Cancer classification	0.96	0.3263
Stage of cancer	0.17	0.6779
Navigation services	5.52	0.0187
Surgery	4.77	0.029
Chemotherapy	4.22	0.04
Radiation therapy	0.001	0.9675
Hormone therapy	1.17	0.2797
<b>Health actions</b>		
Gender	5.12	0.0237
Age	1.04	0.3076
Educational level	0.39	0.5311
Marital status	0.42	0.5189
Income	0.82	0.3666
Cancer classification	2.33	0.1265
Stage of cancer	0.09	0.7625
Navigation services	0.34	0.5624
Surgery	2.08	0.1496
Chemotherapy	0.29	0.5909
Radiation therapy	0.41	0.523
Hormone therapy	2.84	0.0919
<b>Satisfaction</b>		
Gender	15.04	0.001*
Age	0.01	0.9095
Educational level	0.04	0.8491
Marital status	1.17	0.2796
Income	0.91	0.3391
Cancer classification	0.1	0.7466
Stage of cancer	3.04	0.8123
Navigation services	2.77	0.0955
Surgery	7.1	0.0077*
Chemotherapy	1.78	0.1818
Radiation therapy	1.38	0.2403
Hormone therapy	0.02	0.8942

\*  $p \leq 0.01$

culturally diverse populations (Burg, Lopez, Dailey, Keller, & Prendergast, 2009; Faul, Shibata, Townsend, & Jacobsen, 2010). Additional research concerning SCP use in diverse populations is important to this body of knowledge.

Although recruitment of participants was not limited to specific cancers, participants in this study were largely survivors of breast and reproductive cancers. Generalizing the findings from this study to other cancer types, therefore, may not be appropriate, although guidelines regarding SCPs recommend their use for all cancer types.

### Implications for Nursing

Nurses in a variety of healthcare settings play an increasing role in cancer survivorship care. Specifically related to the use of SCPs for follow-up care, nursing literature indicates that patient satisfaction is greater when providers, including nurses, provide SCPs to survivors (Spears, Craft, & White, 2017).

Nurses have several active roles in the SCP process, including the development of SCPs, communication of SCPs to patients and their families and caregivers, and interactions with survivors of cancer and their caregivers about follow-up care. Nurses, therefore, are uniquely positioned to lead the way in identifying and addressing the reasons for hindrances to SCP use. The task of systematically eliminating these causes provides nurses with ongoing opportunities to continuously improve the delivery and effectiveness not only of SCPs but also the follow-up care that patients willingly engage in because of the SCP. In turn, SCPs can more deliberately be used to improve outcomes for survivors of cancer and, as a result, make

### KNOWLEDGE TRANSLATION

- Cancer survivors who receive a survivorship care plan (SCP) report high levels of satisfaction with the information included in the document.
- SCPs are used by cancer survivors to communicate with formal and informal providers about their follow-up care.
- Cancer survivors report taking action from information and recommendations provided in the SCP.

the value of SCPs more readily apparent to providers and patients (Chrischilles et al., 2015).

This study's findings related to navigation services carry important nursing implications. Survivorship care—specifically the provision of navigation services—is a unique part of nursing leadership in which nurses play a prominent role in quality improvement and continuity of care (Pautasso, Zelmanowicz, Flores, & Caregnato, 2018), as well as in the addressing of psychosocial needs (Corcoran, Dunne, & McCabe, 2015). If patients have no recollection of or do not receive navigation services, an opportunity exists to reinforce this service as an important role of nurses in nursing education and practice. Acting on this opportunity would allow nurses to better contribute to improving the content and delivery of SCPs to close the gaps in SCP use, health actions taken, and patient satisfaction that were revealed by this study.

The three variables identified (use, health actions taken, and satisfaction) are examples of key performance indicators that provide measures of how providers and patients together are improving their ability to realize wide-reaching SCP use. The American Society of Clinical Oncology (n.d.) in its Quality Oncology Practice Initiative established target measures for the treatment plan, summary, and follow-up plan delivery. At present, there do not appear to be established targets from the patient use perspective, including those presented in the current study. Efforts to establish these specific targets will allow the quantification of gaps between the current use, health actions taken, and satisfaction and optimal use. Understanding these barriers to patient use will lead to opportunities for improved SCP development and use.

### Conclusion

The results of this study demonstrate that the use of recommendations from SCPs for follow-up care by

**TABLE 5. Logistic Regression Results: Significant Variables Associated With Outcomes of Interest**

Variable	OR	95% CI
<b>Any use</b>		
Any action	11.005	[4.317, 28.055]
<b>Any action</b>		
Female reproductive cancer	4.416	[1.184, 16.466]
Any use	11.146	[4.216, 29.466]
<b>Satisfaction</b>		
Any use	4.343	[1.568, 12.027]
More control	5.213	[1.881, 14.451]
Male reproductive cancer	0.228	[0.081, 0.645]

CI—confidence interval; OR—odds ratio



cancer survivors can lead to health actions related to healthy lifestyles and ongoing preventive care. In addition, use of the SCP is also associated with high levels of satisfaction with the SCP as a care management tool.

In the healthcare arena, survivors interact most closely with nurses, often at survivor clinics. Nurses have an ongoing relationship with patients that is based on trust, therefore providing them with the ability to increase patient satisfaction in the use of SCPs. Nurses offer ongoing education and counseling to patients as a result of therapeutic relationships they have developed over time with patients and through their education.

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## REFERENCES

- American Society of Clinical Oncology. (n.d.). QOPI-related measures. Retrieved from <https://practice.asco.org/quality-improvement/quality-programs/quality-oncology-practice-initiative/qopi-related-measures>
- Birken, S.A., Urquhart, R., Munoz-Plaza, C., Zizzi, A.R., Haines, E., Stover, A., . . . Hahn, E.E. (2018). Survivorship care plans: Are randomized controlled trials assessing outcomes that are relevant to stakeholders? *Journal of Cancer Survivorship*, 12, 495–508. <https://doi.org/10.1007/s11764-018-0688-6>
- Burg, M.A., Lopez, E.D.S., 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(Suppl. 2), S467–S471. <https://doi.org/10.1007/s11606-009-1012-y>
- Chrischilles, E.A., McDowell, B.D., Rubenstein, L., Charlton, M., Pendergast, J., Juarez, G.Y., & Arora, N.K. (2015). Survivorship care planning and its influence on long-term patient-reported outcomes among colorectal and lung cancer survivors: The CanCORS disease-free survivor follow-up study. *Journal of Cancer Survivorship*, 9, 269–278. <https://doi.org/10.1007/s11764-014-0406-y>
- Commission on Cancer. (2016). *Cancer program standards: Ensuring patient-centered care: 2016 edition*. Retrieved from [https://www.facs.org/-/media/files/quality-programs/cancer/coc/2016-coc-standards-manual\\_interactive-pdf.ashx?la=en](https://www.facs.org/-/media/files/quality-programs/cancer/coc/2016-coc-standards-manual_interactive-pdf.ashx?la=en)
- Corcoran, S., Dunne, M., & McCabe, M.S. (2015). The role of advanced practice nurses in cancer survivorship care. *Seminars in Oncology Nursing*, 31, 338–347. <https://doi.org/10.1016/j.soncn.2015.08.009>
- Daudt, H.M.L., van Mossel, C., Dennis, D.L., Leitz, L., Watson, H.C., & Tanliao, J.J. (2014). Survivorship care plans: A work in progress. *Current Oncology*, 31, e466–e479. <https://doi.org/10.3747/co.21.1781>
- Donohue, S., Haine, J.E., Li, Z., Feldstein, D.A., Micek, M., Trowbridge, E.R., . . . Tevaarwerk, A.J. (2019). Cancer survivorship care plan utilization and impact on clinical decision-making at point-of-care visits with primary care: Results from an engineering, primary care, and oncology collaborative for survivorship health. *Journal of Cancer Education*, 34, 252–258. <https://doi.org/10.1007/s13187-017-1295-3>
- Donohue, S., Sesto, M.E., Hahn, D.L., Buhr, K.A., Jacobs, E.A., Sosman, J.M., . . . Tevaarwerk, A.J. (2015). Evaluating primary

- care providers' views on survivorship care plans generated by an electronic health record system. *Journal of Oncology Practice*, 11, e329–e335. <https://doi.org/10.1200/JOP.2014.003335>
- Faul, L.A., Shibata, D., Townsend, I., & Jacobsen, P.B. (2010). Improving survivorship care for patients with colorectal cancer. *Cancer Control*, 17, 35–43. <https://doi.org/10.1177/107327481001700105>
- Forsythe, L.P., Parry, C., Alfano, C.M., Kent, E.E., Leach, C.R., Haggstrom, D.A., . . . Rowland, J.H. (2013). Use of survivorship care plans in the United States: Associations with survivorship care. *Journal of the National Cancer Institute*, 105, 1579–1587. <https://doi.org/10.1093/jnci/djt258>
- Greenlee, H., Molmenti, C.L.S., 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 Survivorship*, 10, 956–963. <https://doi.org/10.1007/s11764-016-0541-8>
- Hewitt, M., Greenfield, S., & Stoval, E. (Eds.). (2005). *From cancer patient to cancer survivor: Lost in transition*. Washington, DC: National Academies Press.
- Hill-Kayser, C.E., Vachani, C.C., Hampshire, M.K., Di Lullo, G., Jacobs, L.A., & Metz, J.M. (2013). Impact of Internet-based cancer survivorship care plans on health care and lifestyle behaviors. *Cancer*, 119, 3854–3860. <https://doi.org/10.1002/cncr.28286>
- Jacobsen, P.B., DeRosa, A.P., Henderson, T.O., Mayer, D.K., Moskowitz, C.S., Paskett, E.D., & Rowland, J.H. (2018). Systematic review of the impact of cancer survivorship care plans on health outcomes and health care delivery. *Journal of Clinical Oncology*, 36, 2088–2100. <https://doi.org/10.1200/JCO.2018.77.7482>
- Palmer, S.C., Stricker, C.T., Panzer, S.L., 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 of Oncology Practice*, 11, e222–e229. <https://doi.org/10.1200/JOP.2014.001404>
- Pautasso, F.F., Zelmanowicz, A.D., Flores, C.D., & Caregnato, R.C.A. (2018). Actuación del nurse navigator: Revisión integrativa. *Revista Gaúcha de Enfermagem*, 39, e2017-0102. <https://doi.org/10.1590/1983-1447.2018.2017-0102>
- Saita, E., Acquati, C., & Molgora, S. (2016). Promoting patient and caregiver engagement to care in cancer. *Frontiers in Psychology*, 7, 1660. <https://doi.org/10.3389/fpsyg.2016.01660>
- Salz, T., & Baxi, S. (2016). Moving survivorship care plans forward: Focus on care coordination. *Cancer Medicine*, 5, 1717–1722. <https://doi.org/10.1002/cam4.733>
- Spears, J.A., Craft, M., & White, S. (2017). Outcomes of cancer survivorship care provided by advanced practice RNs compared to other models of care: A systematic review. *Oncology Nursing Forum*, 44, E34–E41. <https://doi.org/10.1188/17.ONF.e34-e41>
- Sprague, B.L., Dittus, K.L., Pace, C.M., Dulko, D., Pollack, L.A., Hawkins, N.A., & Geller, B.M. (2013). Patient satisfaction with breast and colorectal cancer survivorship care plans. *Clinical Journal of Oncology Nursing*, 17, 266–272. <https://doi.org/10.1188/13.Cjon.17-03ap>
- U.S. Department of Health and Human Services. (2019). *Annual update of the HHS poverty guidelines*. Retrieved from <https://www.govinfo.gov/content/pkg/FR-2019-02-01/pdf/2019-00621.pdf>
- Vahdat, S., Hamzehgardeshi, L., Hessem, S., & Hamzehgardeshi, Z. (2014). Patient involvement in health care decision making: A review. *Iranian Red Crescent Medical Journal*, 16, e12454. <https://doi.org/10.5812/ircmj.12454>
- van de Poll-Franse, L.V., Nicolaije, K.A.H., & Ezendam, N.P.M. (2017). The impact of cancer survivorship care plans on patient and health care provider outcomes: A current perspective. *Acta Oncologica*, 56, 134–138. <https://doi.org/10.1080/0284186x.2016.1266080>