

Analyzing Psychosocial Services Available to Cancer Patients Within the WWAMI Region

Cinthia Piedra-Santos

A thesis
submitted in partial fulfillment of the requirements for the degree of

Master of Social Work

University of Washington

2018

Committee:

Taryn Lindhorst

Gino Aisenberg

Program Authorized to Offer Degree:

Social Work

©Copyright 2018

Cinthia Piedra-Santos

University of Washington

Abstract

Analyzing Psychosocial Services Available to Cancer Patients Within the WWAMI Region

Cinthia Piedra-Santos

Chair of the Supervisory Committee:

Taryn Lindhorst

Department of Social Work

Psychosocial services are of critical importance for cancer patients upon diagnosis, through treatment and after treatment ends. This study was conducted using a quantitative, interview-based survey and secondary quantitative data from Hospital Value-Based Purchasing Program (HVBP). Data were collected from 18 cancer centers within the Pacific Northwest region that were accredited by the Commission on Cancer (CoC). Barriers to psychosocial care for cancer patients were gathered from interviewees. This research presents a comprehensive look at psychosocial services within the WWAMI region (Washington, Wyoming, Alaska, Montana and Idaho) and compares availability of services between Washington and the other four states, and between high and low poverty hospitals. Services and available staffing for psychosocial services were analyzed using descriptive statistics and chi square tests of associations to look at differences between states and level of poverty. This study showed that there is a significant relationship between poverty and the services of spiritual care ($<.01$) and patient navigation ($<.05$), where these services were less likely to be provided in high poverty hospitals. A lack of psychosocial services was identified across states in the WWAMI region and a need for equity and standardization of services is needed to serve all cancer patients.

Acknowledgements

I would like to gratefully acknowledge various people that have been with me throughout this journey and seeing me finish my master's degree. Firstly, I would like to thank my parents, Rosa Santos and Cesar Piedra. You both have showed my unconditional love and support throughout my entire life. Yo no estubiera aqui sin ustedes y todo el apoyo que siempre me dan. Les quiero muchisimo! I would like to thank my siblings, Edwin and Michelle Piedra for always being my rocks and never letting me give up on myself. Without the support of my family, friends, and mentors listening to me and guiding me day in and out, I know I would not have been able to accomplish my master's thesis. I would like to also thank Dr. Taryn Lindhorst and Dr. Gino Aisenberg, my thesis committee, for guiding me this year and seeing me complete this project from start to finish. Lastly, I would like to thank Hazal Erçin, my proof reader, phone interviewer, and companion this year. Without everyone here I don't think I would be where I am today. Thank you everyone for everything.

Table of Contents

I.	Title Page_____	[1]
II.	Copyright Page_____	[2]
III.	Abstract_____	[3]
IV.	Acknowledgements _____	[4]
V.	Introduction_____	[7]
	a. Research Purpose_____	[7]
	b. Background_____	[7]
	c. Psychosocial Concerns_____	[8-9]
	i. Common concerns with cancer diagnosis_____	[8]
	ii. Common concerns with survivorship _____	[8]
	d. Distress screening in cancer care _____	[9]
	e. Types of psychosocial support _____	[9-11]
	i. Palliative Care_____	[9-10]
	ii. Spiritual Care _____	[10]
	iii. Mental Health_____	[10-11]
	f. Gaps in Existing Research_____	[11]
	g. Significance_____	[11]
	h. Research questions_____	[11]
VI.	Methods_____	[12-16]
	a. Design _____	[12]
	b. Sample_____	[12]
	c. Measures_____	[14]

d.	Analysis	[14-16]
i.	Psychosocial services received	[14-15]
ii.	State and level of poverty	[15-16]
iii.	Barriers to psychosocial services	[16]
VII.	Results	[17-20]
a.	Characteristics	[17]
b.	Data Summary #1	[18]
c.	Data Summary #2	[20]
d.	Data Summary #3	[22]
VIII.	Discussion	[23-24]
a.	Summary	[23-24]
b.	Policy Implications	[24]
c.	Limitations and Suggestions for Future Research	[24-25]
d.	Conclusion	[25]
IX.	References	[26-28]
X.	Appendix	[29-36]
XI.		

Introduction

Research Purpose

The purpose of this research project is to identify available psychosocial services for cancer patients in Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) cancer care centers in the Pacific northwest and to evaluate whether the availability of psychosocial services differ for cancer patients between different states.

Background

Every year, cancer claims the lives of more than half a million Americans, making it the second leading cause of death in the nation (Center for Disease Control Prevention, 2017). About 595,690 Americans were expected to die of cancer in 2016, which translates to about 1,630 people per day (American Cancer Society, 2017). Cancer is defined as a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. Cancer is not just one disease, it is a group of more than one hundred distinctive diseases, such as breast, colon, leukemia, or even skin cancer (Kailin & Neugut, 2005). Receiving treatment for any type of cancer can be complex and is different for every individual. High quality cancer care depends on the ability to secure, pay and travel for needed diagnostics, treatments, and support services (Cancer Support Community, 2016). There are many ways to address possible psychosocial concerns for patients through distress screening, psychosocial services, and additional support resources. Cancer patients may also face additional challenges with structural barriers instilled that may include financial support, geographical distance to the treatment facility, and access to transportation (Shook, 2005).

Psychosocial Concerns

Concerns with diagnosis: Existing research acknowledges that across all diagnoses, cancer patients are at significantly increased risk for psychological symptoms (Mitchell et al., 2011). Along with diagnosis, there can be additional factors mentally that may affect patient well-being. Psychosocial issues can be identified as emotional, cognitive, social, and functional problems that have been observed in studies. Concerns with physical health, alterations to normal development, emotional or mental health problems, and social problems (e.g., financial burden, re-employment, stigma of disability, social and spiritual support concerns) have been identified (Brown, Lipscomb, & Snyder, 2001). Identifying and meeting the patient's psychosocial needs initially and throughout treatment is essential to providing quality care. These psychological symptoms experienced by cancer patients are not static, but rather are likely to change over time (Lam et al., 2013).

Concerns with survivorship: There are various definitions to define patient survivorship. Some may identify survivorship from the minute a patient is diagnosed, while others hold the definition as someone who has completed "active treatment". Regardless, there have been studies indicating a high prevalence of psychosocial concerns with survivorship. Discussions with providers regarding psychosocial concerns after cancer can serve multiple purposes, including enhancing communication between providers, survivors, and their families about the importance of psychosocial needs, identifying otherwise undetected needs, and providing an opportunity for treatment or referral for psychosocial concerns (Forsythe et al., 2013) Not having sufficient discussions between survivors and providers may lead to missed opportunities to have providers support, connect, and initiate appropriate interventions for the patients' psychosocial needs.

Distress screening in cancer care

Having a diagnosis with an illness that is life-threatening can spark immediate distress for an individual and his or family (Sellick & Edwardson, 2007). Routine screening for distress has been internationally recommended as a necessary standard for good cancer care (Grassi et al., 2013). Past literature highlights distress tools that identify and assess patients' distress needs, such as distress thermometer, hospital anxiety and depression scale, and self-surveys conducted by the patient. Failure to detect and treat elevated levels of distress jeopardizes the outcomes of cancer therapies, decreases patients' quality of life, and increases health care costs (Zabora et al., 2001). Distress screening has become essential to easily collect necessary information regarding patients' greatest psychosocial distress and then introducing patients to available services that address these needs.

Types of psychosocial support

Psychosocial care has been defined in research as care that involves a culturally sensitive provision of psychological, social and spiritual care (Hodgkinson, 2008). Psychosocial care has a framework emphasizing five key components: identification of patients with psychosocial health needs; care planning to meet these needs; mechanisms to link patients with psychosocial health services; support of illness self-management; and follow-up on care delivery (Fann & Sexton, 2015). Cancer is often associated with poor quality of life and psychosocial distress. There are evidence-based interventions available that are intended to provide psychosocial services for cancer patients, such as palliative care, spiritual care, and mental health services that emphasize patient care through a holistic view.

Palliative Care is defined as an “approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the

prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual” (World Health Organization, 2018). A retrospective study of 366 participants examined the impact of timing of palliative care referrals and quality of end-of-life care in cancer patients. Results showed that patients who were referred to palliative care earlier and as outpatients had improved quality of life compared with those who were referred late and as outpatients, with lower portions of patients having ER, hospitalizations, and ICU admissions (Hui et al., 2014). Palliative care has evolved in ways that addresses many concerns for a patient from symptom management to psychosocial distress.

Spiritual Care can be an important factor in healthcare. Patients near the end of life report that they are concerned about spiritual, existential, family, and emotional aspects of their illness, which are rarely the focus of care in medical settings (Greishinger et al., 1997) Some literature suggests that spirituality include one's “values, beliefs, mission, awareness, subjectivity, experience, sense of purpose and direction, and a kind of striving toward something greater than oneself” (Frame, 2003). There has not been a universal framework identified within literature on spiritual care, but sees spiritual care as varied activities that are not limited to facilitating relationships and coping mechanisms that can be more frequent than prayer, religious ritual or services (Daaleman, 2012).

Mental Health Care. Cancer is one of several chronic illnesses that precipitates the need for and use of mental health services (Hewitt and Rowland, 2002). These services can be difficult for patients to access depending on geographical location and amount of services available to them. In addition, literature has identified additional barriers that may impede a patient from receiving mental health services. Barriers that have been identified include the

perceived lack of need for services even when patients may show signs of significant distress, the desire to independently address emotional problems, and/or having inadequate knowledge of service (Mosher et al., 2014)

Gaps in research

There appears to be a minimal amount of literature which simultaneously measures the intersectional relationships of cancer diagnostics, quality of care, and psychosocial services used during treatment for cancer patients. No studies have been done that comprehensively evaluate the availability of psychosocial services in the WWAMI (Washington, Wyoming, Alaska, Montana, Idaho) region.

Significance

This study complements the existing body of research identifying disparities that cancer patients may face depending on their geographical location among accredited cancer care centers within the WWAMI region. This research also highlights existing barriers for cancer care services, especially psychosocial care received across different states and provides a comprehensive overview of the quality of psychosocial services for cancer patients while identifying existing disparities in care.

Research Questions

- (1) What psychosocial services are available to cancer patients receiving treatment in accredited cancer centers in the WWAMI region?
- (2) How do these services differ depending on state and level of poverty?
- (3) What are barriers to psychosocial care for cancer patients in these centers?

Methods

Research design

This study was conducted using a quantitative, interview-based survey and secondary quantitative data from Hospital Value-Based Purchasing Program (HVBP).

Sample

Accredited Cancer Treatment Center: was defined as a program that meets standards set by the national Commission on Cancer. This accreditation recognizes cancer care programs for their commitment to providing comprehensive, quality, and multidisciplinary patient centered care. Hospitals must encompass standards that promote patient-centered cancer care, including the delivery of genetic testing and counseling, the development of survivorship care plans, and mechanisms to address psychosocial distress and health care disparities and barriers (American College of Surgeons, 2018) A total of forty-eight hospitals were listed as accredited cancer care centers by CoC within the WWAMI region in December 2017.

Table 1.

Number of Hospitals Accredited by the Commission on Cancer in the WWAMI Region

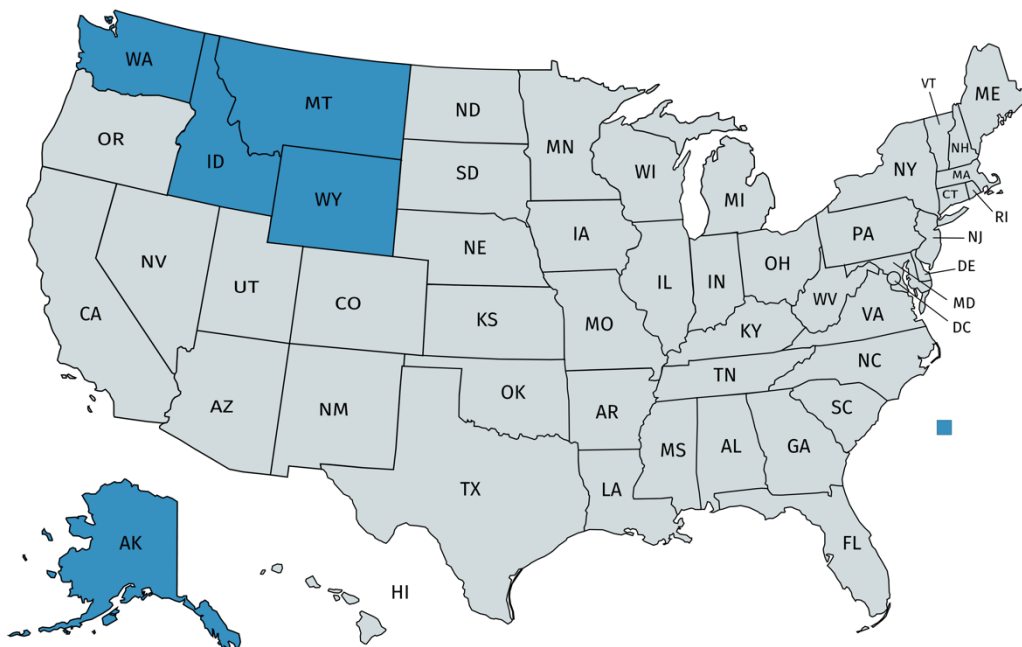
State	Number of Hospitals
Washington	34
Wyoming	1
Alaska	2
Montana	6
Idaho	5
Total	48

The WWAMI region is a partnership between four states that lack medical schools with the University of Washington which provides medical education to students residing in Washington, Wyoming, Alaska, Montana, and Idaho. This program has five stated goals: (1)

provide publicly supported medical education; (2) increase the number of primary-care physicians and correct the maldistribution of physicians; (3) provide community-based medical education; (4) expand graduate medical education and continuing medical education; and (5) provide all of these in a cost-effective manner. The WWAMI partnership was created by the shortage of physicians that historically affected rural areas in the 1970s. Lack of physicians had increase of rural disparities and were the most rural in the country. This program proposed a goal of increasing physicians across the northwest part of the nation (Schwarz, 1974).

Figure 1.

WWAMI Region in the United States



In this study, findings based on interviews with 18 programs are reported. 3 of the largest cancer centers accredited by commission on cancer (CoC) in Washington were grouped together to represent the state and the other 15 interviewed for Wyoming, Alaska, Montana, and Idaho were grouped together to preserve confidentiality.

The results from the interviews are reported along with aggregated information from the American Hospital Association's American Hospital Variation Directory. The Association measures quality performance analyzing hospital size, readmission rates, mortality, and patient safety indicators. For the purpose of this research, data on each hospital for which interviews were completed was extracted from this program to compare hospital demographics with psychosocial care services provided in each institution.

Measures

A questionnaire was created measuring six categories: staffing levels, onsite services, survivorship, distress screening, and palliative care services received (see appendix 1 for interview survey). The questionnaire was reviewed by the thesis chair, a doctoral student expert in palliative care and a psychiatrist in charge of psychosocial services at a local cancer center. The survey encompassed open and close-ended questions regarding psychosocial care received for cancer patients and their families. The survey asked oncology social workers to discuss available services to patients and identify barriers to the implementation of psychosocial services.

Phone interviews were conducted with oncology social workers or a director of nursing depending on availability. Research interviewers collected information on staffing levels, onsite services, community services, palliative care services, and survivorship services available and accessible to cancer patients and their families.

Analysis

To answer the first research question, “What psychosocial services are available to cancer patients receiving treatment in accredited cancer centers in the WWAMI region?” descriptive statistics such as frequencies, percentages, means, and standard deviation were used for the types of psychosocial services provided at each hospital. In addition, descriptive statistics was used for internal resources available for patients. Staff available to provide psychosocial services was also measured by finding full-time equivalencies of staff by the number of Medicare beds of each hospital.

To answer the second research question, “How do these services differ depending on state and level of poverty?” two indicators were constructed. The first indicator, *State*, was defined as Washington state = 1, and all other states = 0. *Level of Poverty* was based on data extracted from the American Hospital Variation dataset.

This table was analyzed by identifying whether there was any association between the availability of any of these programs and the hospitals’ level of poverty. Hospitals’ level of poverty was measured by calculating the ratio of uncompensated revenue to the total revenue for each hospital. Hospitals providing more than 15% of total revenue for uncompensated care were considered as high-level poverty hospitals. Uncompensated care revenue was calculated as the sum of Medicaid, State Children’s Health Insurance Program (SCHIP), State and local indigent programs, and all other uncompensated care. This information was obtained from the hospital’s Medicare cost report (W/S S10). Costs were estimated based on a hospital’s gross charges and overall cost-to-charge ratio. Total revenue was taken from income statement information from the hospital’s Medicare cost report (W/S G2 and G3) The five most recent cost reporting period are reported and data are updated on quarterly basis as more recent information becomes

available. Data for cost reporting periods representing other than 12 reports are annualized. All data were taken from American Health Directory financial report, which provides hospital balance sheet and income statement information for its most recent five years. Hospitals update this financial information quarterly through a Medicare cost report that hospitals are required to file. The Medicare cost report comes from the Centers for Medicare and Medicaid Services (CMS). A Medicare cost report mirrors each hospital's audited financial statements and is a condition of participating in Medicare. All in all, cost report data is useful for comparisons because all hospitals follow Medicare's Standard instructions.

Each chi square test for the two conditions (state and level of poverty) were 2 x 2 tables in which the service was dichotomized as present or absent, and each condition was two levels (WA vs Other States and high vs low poverty). The table in the results section presents only the "yes" responses for the service area.

To answer the third research question, "What are barriers to psychosocial care for cancer patients in these centers?" qualitative data were extracted from the interviews and were then analyzed by listing the different types of barriers described by the participants and combining similar statements to create a listing ordered by frequency of mention. Illustrative quotes were provided to illustrate these concerns.

Results

Tables 2 and 3 presents overall information about the sample including the characteristics of the person who provided information about psychosocial services at the cancer center. Of the 18 organizations that participated in interviews, these interviews were primarily completed by women (94%). On average, they had worked in their profession for 6.52 years (range = 2.5-18), and in the organization for 3.31 years (range = .5-12). The majority of the hospitals were outside of Washington state.

Table 2.
Interviewee Description (n = 18)

Characteristics	Mean
Gender (Female)	.94
Years in Profession	6.52
Years in Organization	3.31

Table 3
Hospitals interviewed (n=18)

Hospitals Interviewed	# of Hospitals
Washington	3
Other states (WAMI)	15
Total	18

Types of Psychosocial Services Provided

Table 4 reports the number of full-time equivalencies of providers by the number of Medicare beds (to standardize reports based on the size of the hospital). Washington state has a larger quantity of staff available to provide services to cancer patients compared to other states in the WWAMI region. Out of all providers available to cancer patients, there was a higher percentage of Oncology Social Workers in Washington to provide services compared to the other staff type. Within the other 4 states in the WWAMI region, there were more patient navigators in cancer care centers.

Table 4.

Full-Time Equivalencies by the Number of Medicare Beds

Staff Type	Entire Sample (n=18)		WA State (n=3)		Other States (n=15)	
	Range (0-8.6)		Range (0-1.4)		Range (0-8.6)	
	M	SD	M	SD	M	SD
Psychiatrist	.74	2.93	4.28	7.11	.035	.098
Psychologist	.44	1.76	2.50	4.33	.034	1.35
Oncology Social Worker	2.66	7.47	11.36	18.31	.92	.68
Advance Nursing	1.27	2.37	3.52	5.60	.79	.83
Patient Navigator	1.23	3.56	5.09	8.57	1.18	2.15
Spiritual Care	1.83	3.83	5.07	8.69	.41	.38

**Number of hospitals accredited by CoC FTE per unit of 100 accredited Medicare beds

Table 5 provides the number of staff types employed at the cancer centers within the WWAMI region. Only two-thirds of Washington cancer centers had a patient navigator or spiritual care provider that worked directly with cancer patients. In addition, one-third of Washington hospitals had a psychologist that worked directly with cancer patients. All states had higher numbers of oncology social workers, advanced nursing, patient navigators, and spiritual care providers that worked with cancer patients when compared to psychiatrists and psychologists.

Table 5.
Staff Available for Psychosocial Services

Staff Type	Entire Sample n=18	WA State n=3	Other States n=15
	F(%)	F(%)	F(%)
Psychiatrist	5 (28%)	3 (100%)	2 (13%)
Psychologist	2 (11%)	1 (33%)	1 (7%)
Oncology Social Worker	17 (94%)	3 (100%)	14 (93%)
Advanced Nursing	15 (83%)	3 (100%)	12 (80%)
Patient Navigator	13 (72%)	2 (67%)	11 (73%)
Spiritual Care	13 (72%)	2 (67%)	11 (73%)

Table 6 overall represents spiritual care, patient navigation, survivorship planning, and distress screening services available for cancer patients. The other 4 states had a greater percentage of services available to their cancer patients compared to the state of Washington, with spiritual care and patient navigation services more readily available to cancer patients. Survivorship planning and distress screening done with validated instruments were both equal across all states.

Table 6.
Type of Psychosocial Services Provided

Service	Entire Sample n=18 F(%)	WA State n=3 F(%)	Other States n=15 F(%)
Spiritual Care	13 (72%)	2 (67%)	11 (73%)
Patient Navigation	13 (72%)	2 (67%)	11 (73%)
Survivorship Planning	12 (67%)	2 (67%)	10 (67%)
Validated Instruments Distress Screening	12 (72%)	2 (67%)	10 (67%)

Table 7 shows the internal resources within hospitals that are available for cancer patients. The top services available with all 18 states were nutritionist and counseling services available to cancer patients. Washington state lacked services for acupuncture and massage while the other 4 states (at least 10%) had these services. Other states had a high percentage of counseling, bereavement, nutritionist, financial aid, and cancer support groups (>75%). Across all states, counseling services had the highest percentage compared to other services offered.

Table 7.

Internal Resources available for patients

Service	Entire Sample n=18 F(%)	WA State n=3 F(%)	Other States n=15 F(%)
Bereavement	16 (89%)	3 (100%)	13 (87%)
Transportation	14 (78%)	3 (100%)	11 (73%)
Housing	13 (72%)	3 (100%)	10 (67%)
Financial Aid	16 (89%)	3 (100%)	13 (86%)
Nutritionist	17 (94%)	3 (100%)	14 (93%)
Cancer Support Groups	13 (72%)	1 (33%)	12 (80%)
Art Therapy	8 (44%)	2 (67%)	6 (40%)
Acupuncture	2 (11%)	0	2 (13%)
Counseling Services	17 (94%)	3 (100%)	14 (93%)
Massage	5 (28%)	0	5 (33%)

Comparison of Services Between States and by Level of Poverty

Table 8 shows the association between state and poverty level and availability of spiritual care, patient navigation, survivorship plans, interdisciplinary palliative care team and interpreter services. This table provides evidence of an association between poverty levels and spiritual care ($<.01$) and survivorship plans ($<.05$). Other services such as patient navigation, palliative care team, and interpreter were not associated with poverty levels. No differences were found between Washington and the other four states in terms of the services provided.

Table 8.

Association of Poverty Level and Availability of Services

	State Differences		Level of Poverty Differences			
	Washington (n=3)	WAMI (n=15)	χ^2	High Level of Poverty (n=9)	Low Level of Poverty (n=9)	χ^2
Spiritual Care	2	11	0.814	4	9	0.008
Patient Navigator	2	11	0.814	6	7	0.59
Survivorship Plan	1	11	0.18	7	8	0.04
Palliative Care Team	2	9	0.828	7	4	0.149
Interpreter	3	9	0.179	7	5	0.317

Barriers to Psychosocial Care

Interviewees were asked to name the top three barriers to the implementation of psychosocial care for cancer patients in cancer centers. The table below shows that out of the entire sample the most common barrier identified was the need for more staff (88%) to provide services to cancer patients. From Washington state the most common answer was funding, staff available, and time; all three cancer centers said their top barrier was funding. Interviewees highlighted the lack of funding for cancer patients, noting “There are limited resources for patients with uncommon cancers.” In the other four states the most common response was staff availability, transportation, and time. Interviewees highlighted these barriers by stating “Many patients end up missing necessary appointments” and “there just aren’t enough people here to meet a patient’s needs.”

Barriers	Entire Sample n=18 F (%)	WA n=3 F (%)	Other States n=15 F (%)
Transportation	11 (61%)	0 (0%)	11 (73%)
Funding	7 (38%)	3 (100%)	4 (26%)
Time	12 (66%)	1 (33%)	11 (73%)
Staff Available	16 (88%)	2 (67%)	14 (93%)
Other	6 (33%)	1 (33%)	5 (27%)

Discussion

This research explored the types of psychosocial services available to cancer patients receiving care in accredited cancer centers in the WWAMI region. The most important findings were:

- Full-time equivalencies by Medicare beds identified drastic differences between Washington and other 4 states.
- There was a strong association between poverty levels and spiritual care services provided ($<.01$) as well as survivorship planning ($<.05$) for patients.
- Top barriers identified by interviewees was staff availability and funding.

This study found that the indicator, full-time provider equivalencies by Medicare beds, was low in the other 4 states compared to Washington. Even though these cancer centers are accredited by Commission on Cancer (CoC), cancer patients in these other states may not have access to the full-range of psychosocial care providers and, therefore, may not be able to access the appropriate services to meet their needs. Also, psychologists were unavailable across all five states within the WWAMI region.

In addition, there is evidence that spiritual care and survivorship planning is less likely to be provided in high poverty hospitals, regardless of state. It may be that these hospitals do not have sufficient resources to spend on services that are not directly billable (such as support from social workers, spiritual care or patient navigators). At these hospitals, patients or services may be too expensive to offer making it harder for cancer patients to access needed psychosocial support.

Top barriers identified by interviewees was staff availability and funding. This is important to identify to see that although, there was a high percentage of internal resources available to patients in cancer centers, not having necessary staff employed to provide these services further creates barriers of patients' accessing appropriate resources to meet their needs.

Practice Implications

Cancer patients face significant psychosocial concerns at diagnosis, during the active phase of cancer treatment and after active treatment ends, during the period now called "survivorship." These findings suggest that cancer patients may not have psychosocial services and staff available to them during and after their treatment.

To address this concern, social workers should have additional training that affectively guides them to discuss topics that address a patients' all levels of psychosocial concerns, such as spiritual and cultural impact. Social Workers should not only be trained, but should also be able to provide education on psychosocial and emotional support to medical providers so they can be better equipped on addressing psychosocial concerns for their patients. There is a need to have social workers advocate for more services that provide the same level of interventions for patients that have cancer regardless of their geographical location.

Limitations and suggestions for future research

This study was a cross-sectional interview study. Cross-sectional data can only capture information at one moment in time, so the changes happening in these centers cannot be captured. Also, chi square does not show directionality, just association.

An important practical limitation of this research was the challenge faced in finding oncology social workers or other people knowledgeable about services across various professions within their setting. The research team had to email and schedule a thirty-minute

phone interview with a person at each hospital, which was time consuming and difficult to navigate with time differences. In addition, there was a small number of cancer care centers outside of Washington state which had 34 out of the 48 cancer care centers. Therefore, this study cannot be generalized to a larger context within the United States. In the literature there are also some questions regarding use of American hospital directory because it is a voluntary survey and hospital do not have to send anything to this directory.

In addition, the hospital data that was used did not have any racial data among providers or of the patients' that were served. Therefore, there was no option to address and identify additional disparities, such as, race of providers and patients at each hospital. Future research should gather demographic data about staff and be included in aggregated hospital data sent to Medicare.

Conclusion

This research has added foundational findings to the existing pool of literature, providing data which may be useful for informing future policy and show awareness to the needs of poor and rural communities. This could potentially lead to a reduction in economic inequality within the healthcare sphere, thereby addressing one of the foremost concerns in population health research, especially within the topic of cancer. Subsequent studies should expand upon these findings by exploring the relationships between socioeconomic status and the services received for cancer treatment, while simultaneously testing for potential alternatives to the limited existing psychosocial services offered to those phased with cancer.

REFERENCES

- American Cancer Society: Cancer facts & figures (2016). Retrieved December 03, 2017 from <https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2016.html>
- American College of Surgeons. (2018). *Commission on Cancer*. Retrieved December 03, 2017 from <https://www.facs.org/quality-programs/cancer/coc>
- Brown, M., Lipscomb, J., & Snyder, C. (2001). THE BURDEN OF ILLNESS OF CANCER: Economic Cost and Quality of Life 1. *Annual Review of Public Health*, 22(1), 91-113.
- Cancer Prevention and Control Centers *for Disease Control and Prevention*, Centers for Disease Control and Prevention. Retrieved December 03, 2017, from www.cdc.gov/cancer/depc/prevention/index.html.
- Cancer support community (2016) Access to care in Cancer 2016. Retrieved December 03, 2017 from <https://www.cancersupportcommunity.org/sites/default/files/uploads/policy-and-advocacy/patient-access/csc-access-to-care-barriers-challenges.pdf?v=1>
- Daaleman, T. (2012). A health services framework of spiritual care. *Journal of Nursing Management*, 20(8), 1021-1028.
- Fann, J., & Sexton, J. (2015). Collaborative Psychosocial Oncology Care Models. In *Psycho-Oncology* (pp. Psycho-Oncology, Chapter 99). Oxford University Press.
- Forsythe, L., Kent, E., Weaver, K., Buchanan, N., Hawkins, N., Rodriguez, J., Rowland, J. (2013). Receipt of Psychosocial Care Among Cancer Survivors in the United States. *Journal Of Clinical Oncology*, 31(16), 1961.
- Frame, M. W. (2003). *Integrating religion and spirituality into counseling: A comprehensive approach*. Pacific Grove, CA: Brooks/Cole.

- Grassi, L., Johansen, C., Annunziata, M., Capovilla, E., Costantini, A., Gritti, P., Bellani, M. (2013). Screening for distress in cancer patients. *Cancer*, 119(9), 1714-1721.
- Greisinger, Lorimor, Aday, Winn, & Baile. (1997). Terminally ill cancer patients. Their most important concerns. *Cancer Practice*, 5(3), 147-54.
- Hewitt, M., & Rowland, J. (2002). Mental health service use among adult cancer survivors: Analyses of the National Health Interview Survey. *Journal of Clinical Oncology : Official Journal of the American Society of Clinical Oncology*, 20(23), 4581-90.
- Hodgkinson, K. 2008. What is the psychosocial impact of cancer. in Hodgkinson, K. and Gilchrist, J. *Psychosocial Care of Cancer Patients*.
- Hui, D., Kim, S. H., Roquemore, J., Dev, R., Chisholm, G., & Bruera, E. (2014). Impact of timing and setting of palliative care referral on quality of end-of-life care in cancer patients. *Cancer*, 120(11), 1743-1749.
- Kaelin CM, Neugut AI. Implementing the gains in cancer prevention Kaelin, C. M., & Neugut, A. I. (2005). Implementing the gains in cancer prevention: prevention experts share the news--good and bad--to help you counsel patients on minimizing their risk for cancer. *Patient Care*, 39(9), 39-46.
- Lam, W. W. T., Soong, I., Yau, T. K., Wong, K. Y., Tsang, J., Yeo, W., ... & Kwong, A. (2013). The evolution of psychological distress trajectories in women diagnosed with advanced breast cancer: a longitudinal study. *Psycho-Oncology*, 22(12), 2831-2839.
- Millman, J., Galway, K., Santin, O., & Reid, J. (2016). Cancer and serious mental illness—patient, caregiver and professional perspectives: study protocol. *Journal of advanced nursing*, 72(1), 217-226.

- Mitchell, A. J., Chan, M., Bhatti, H., Halton, M., Grassi, L., Johansen, C., & Meader, N. (2011). Prevalence of depression, anxiety, and adjustment disorder in oncological, haematological, and palliative-care settings: a meta-analysis of 94 interview-based studies. *The lancet oncology*, *12*(2), 160-174.
- Mosher, C. E., Winger, J. G., Hanna, N., Jalal, S. I., Fakiris, A. J., Einhorn, L. H., ... & Champion, V. L. (2014). Barriers to mental health service use and preferences for addressing emotional concerns among lung cancer patients. *Psycho-Oncology*, *23*(7), 812-819.
- Schwarz, M. R. (1974). WAMI--an experiment in regional medical education. *Western Journal of Medicine*, *121*(4), 333–341.
- Sellick, S., & Edwardson, A. (2007). Screening new cancer patients for psychological distress using the hospital anxiety and depression scale. *Psycho-Oncology*, *16*(6), 534-542.
- Shook, M. (2005). Transportation barriers and health access for patient attending a community health center. *Field area paper*.
- Weis, J. (2015). Psychosocial care for cancer patients. *Breast care*, *10*(2), 84-86.
- WHO Definition of Palliative Care. Retrieved December 03, 2017, from <http://www.who.int/cancer/palliative/definition/en/>
- Zabora, J., Brintzenhofeszoc, K., Curbow, B., Hooker, C., & Piantadosi, S. (2001). The prevalence of psychological distress by cancer site. *Psycho-oncology*, *10*(1), 19-28.

APPENDIX 1. Interview Survey:

*Facility:**Caller:**Date:**Contact Phone Number:***Staffing Levels**

***** If the person does not know about staffing, ask if there is another who could be contacted about this information*****

1. Do you have an MSW SW assigned to working with cancer patients?

- YES
- NO
- DON'T KNOW

If yes, what is the percentage of FTE?

What is the average weekly caseload for a social worker?

2. Do you have a PhD psychologist assigned to working with cancer patients?

- YES
- NO
- DON'T KNOW

If yes, what is the percentage of FTE?

3. Do you have psychiatrists assigned to working with cancer patients?

- YES
- NO
- DON'T KNOW

If yes, what is the percentage of FTE?

4. Do you have a Clinical Nurse Specialist or a Nurse Practitioner assigned to working with cancer patients?

- YES
- NO
- DON'T KNOW

If yes, what is the percentage of FTE?

5. Do you have a spiritual care provider assigned to working with cancer patients?

- YES
- NO
- DON'T KNOW

If yes, what is the percentage of FTE?

What are the requirements to become a spiritual care provider?

6. Do you have a patient navigator assigned to working with cancer patients?

- YES
- NO
- DON'T KNOW

If yes, what is the percentage of FTE?

What is the role of a patient navigator at your center?

What are the requirements for being a patient navigator?

7. For which of the following languages do you have a person on-site to provide medical interpretations?

- Spanish
- Mandarin
- Hindu/Urdu
- Vietnamese
- Somali
- Russian
- Other _____

A. What is your procedure if you have a patient that needs interpretation and no one is available on-site?

Onsite Services

1. Does your cancer center provide direct on-site assistance to patients for the following:

- Transportation for cancer related treatment
- Housing for treatment onsite
- Financial Assistance (rent, utilities...) related to cancer diagnosis or treatment
- Nutritionist for cancer-related dietary advice
- Cancer Support Groups
- Art therapy interventions for cancer patients
- Acupuncture for cancer patients
- Counseling Services for cancer patients
- Massage for cancer patients
- Other _____

2. Does your cancer center offer bereavement or grief counseling services to patients or family members

- YES
- NO
- DON'T KNOW

A. If yes, who provides it?

Survivorship

We would like to discuss how you talk to patients about transitioning to survivorship.

1. How does your center define survivorship?

2. Is a survivorship plan created for each patient?

- YES
- NO
- DON'T KNOW

A. If yes, who is responsible for creating this plan?

3. Do you have a survivorship program or clinic?

- YES
- NO
- DON'T KNOW

3. What kind of services do you have for survivors?

Palliative Care Services Provided

1. Do you have a palliative care program or a specific provider for palliative care?

- YES
- NO
- DON'T KNOW

A. If yes, which professions are involved in your palliative care team?

B. If yes, when and how does the Palliative Care team get involved in care of cancer patients?

C. If yes, what is the primary responsibility of the palliative care team?

2. Who is responsible for each of the following:

- Advance Directive creation _____

What is the process?

- Code Status Change _____

What is the process?

- POLST form _____

What is the process?

- End of life symptom Management _____

What is the process?

- Pain management _____

What is the process?

3. On average how many referrals for hospice do you make each week?

4. On average how many referrals for palliative care on-site or out are made each week?

Distress Screening

1. Commission on Cancer now requires that all cancer care centers should complete a psychosocial distress screening for patients. How is your organization doing this?

2. What tool are you using for the screening? (Ex- Distress thermometer, PHQ-9, GAD 7, hospital anxiety and depression scale, edmonton symptom assessment system)

3. What constitutes a high score?

4. How are high scores followed up?

5. How often is this screening repeated?

6. What are the top 3 psychosocial problems your patients have?

(1)

(2)

(3)

7. For patients who have pre-existing serious mental illnesses, what services are available?

Community Services

1. Does your cancer program provide direct assistance to patients for community services such as the following:

(Select all that apply.)

- Short-term transitional housing
- Long-term housing
- Medical Transportation in community
- Financial Assistance
- Community Support Groups
- Free or Low cost mental health care
- Other _____

2. What kind of services do you have for caregiver support?

Additional Questions

1. What do you perceive as the greatest barriers to the implementation of psychosocial care at your institution?

2. What do you perceive as the greatest facilitating factors to the implementation of psychosocial care at your institution?

Demographic Questions

Profession: _____

GENDER IDENTIFICATION:

M _____ F _____ OTHER _____ REFUSED TO ANSWER _____

For how long have you worked in this profession?

- < 5 YEARS
- 5-10 YEARS
- > 10 YEARS

For how long have you worked in this organization?

- < 5 YEARS
- 5-10 YEARS
- > 10 YEARS