Distribution Agreement

In presenting this thesis or dissertation as a partial fulfillment of the requirements for an advanced degree from Emory University, I hereby grant to Emory University and its agents the non-exclusive license to archive, make accessible, and display my thesis or dissertation in whole or in part in all forms of media, now or hereafter known, including display on the world wide web. I understand that I may select some access restrictions as part of the online submission of this thesis or dissertation. I retain all ownership rights to the copyright of the thesis or dissertation. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

Signature: _____

Jessica Star

Date: 12/3/2020

APPROVAL SHEET

Connecting the team: factors that facilitate PCP communication with Oncologists and Patients about long-term effects of breast cancer and treatment.

By

Jessica Star

Master of Public Health

Epidemiology

_____

Kevin Ward, PhD, MPH
Committee Chair

_____

Lauren Wallner, PhD, MPH
Committee Member

Accepted:

_____ Lisa A. Tedesco, Ph.D.
Dean of the James T. Laney School of Graduate Studies

11/3/2020

ABSTRACT COVER PAGE

Connecting the team: factors that facilitate PCP communication with Oncologists and Patients about long-term effects of breast cancer and treatment.

By

Jessica Star, MA, Emory University, 2020

Advisor: Kevin Ward, PhD, MPH

An abstract of
A thesis submitted to the Faculty of the James T. Laney School of Graduate Studies of
Emory University in partial fulfillment of the requirements for the degree of Master of
Public Health
in Epidemiology
2020

ABSTRACT

Connecting the team: factors that facilitate PCP communication with Oncologists and Patients about long-term effects of breast cancer and treatment.

By Jessica Star

Background: Primary Care Professionals (PCP's) are not always trained in late-term effects of cancer treatment and survivorship care. To best assist the patient, the PCP must be in constant communication with patient and oncologist. However, that does not always happen. We need to understand the PCP's attributes that might be helping or hindering communication before a solution can be found.

Methods: From 2013-2015, 5080 patients with early-stage breast cancer or ductal carcinoma in the SEER Registries of Georgia and Los Angeles county were surveyed (9). Women who participated in the study were asked to name their Primary Care Provider, so that these PCP's could also be surveyed. Participants identified 2,946 unique PCPs (9). A stratified sample of eligible PCP's were then surveyed. The PCP data set used for these analyses contained 517 eligible primary care physicians who finished the survey, a 60.8% response rate. Multivariable logistic regression was used to determine PCP reported attributes associated with communication to oncologists and patients.

Results: The odds of PCP's reporting more frequent communication with oncologists was 2.88 times greater for those who reported having taken survivorship training to those who did not (p<0.001). The odds of PCP's reporting more frequent communication with patients is 2.43 times greater for private practice providers than providers in other practice types (p<0.001). The odds of PCP's reporting more frequent communication with patients was 1.74 times greater for those who reported having taken survivorship training to those who did not (p<0.01).

Conclusions: The public health implications of this study revolve around the need for more survivorship training, as well as more resources for non-private practice providers. This study has reaffirmed the effectiveness of survivorship training, and has displayed gaps in care that exist between private and public care.

COVER PAGE

Connecting the team: factors that facilitate PCP communication with Oncologist and Patients about long-term effects of breast cancer and treatment.

By

Jessica Star, MA, Emory University, 2020

Advisor: Kevin Ward, PhD, MPH

A thesis submitted to the Faculty of the James T. Laney School of Graduate Studies of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health
in Epidemiology
2020

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

CHAPTER I: LITERATURE REVIEW

Cancer patients transitioning from oncology to survivorship care present a unique situation for providers. Patients are returning to primary care professionals, or PCP's, who might not have a lot of experience in survivorship care. This transition can provide dissonance for the patient, especially if their oncologists are not in good communication with the PCP. Most survivors don't receive high-quality survivorship care, and the current model of care delivery is largely oncology driven, with little PCP involvement.

In 2009, a cross sectional survey of 300 breast cancer survivors in an outpatient clinic at a university hospital was conducted (1). Survivors were surveyed on 7 items encompassing PCP-related survivorship. These 7 items were combined to create a Perceived Primary Care Survivorship Scale (PCPSS) score. Breast cancer survivors overall ranked their PCPSS score at 65 out of 100. Some of the individual items of the PCPSS score that performed particularly poorly were PCP follow up knowledge, knowledge of late-effects of cancer therapies, and symptom management related to previous cancer therapies with perceived satisfaction of 50%, 59%, and 41% respectively. These results signal areas where PCP's may need further training.

Survivorship care is not an area where most PCP's have specific expertise, so it often falls on the oncologists to create a care plan for them to follow. A nationally representative sample of 1130 medical oncologists and 1020 PCP's were surveyed regarding follow-up care for breast cancer and colon cancer (2). PCP's who received a survivorship care plan (treatment summary and follow-up) from the oncologist reported better care-coordination and confidence in survivorship knowledge compared to those who received neither a treatment summary nor a follow-up plan. Yet, only about half of oncologists reported "almost always" providing cancer

summaries to PCP's, and only 20% reported "almost always" sending a survivorship care plan which includes both a treatment summary and follow-up. There is a need to better facilitate these communications, as they are in the best interest of the patient. This communication is especially necessary when patients are transitioning from cancer care back to primary care.

Breast cancer survivors feel that better communication with their oncologists and PCP's during the transition phase would help them receive better care (1). PCP's and oncologists were in agreement that a major barrier to shared survivorship care was poor communication with each other (3). An important area for improvement in survivorship care is communication between the PCP's and Oncologist's as the survivorship phase goes on for life. In the cross sectional survey previously described, only 28% of breast cancer survivors thought their PCP's and oncologists communicated well (1). A systematic review of 3 databases identified 301 articles on the PCP-cancer specialist relationship, with 35 moving onto meta synthesis (3). Articles consist of quantitative, qualitative, and disaggregated mixed-methods. From the meta synthesis, six themes were identified regarding the PCP-cancer specialist relationship: 1) poor and delayed communication between PCPs and cancer specialists, 2) cancer specialists' endorsement of a specialist-based model of care, 3) PCPs' belief that they play an important role in the cancer continuum, 4) PCPs' willingness to participate in the cancer continuum, 5) cancer specialists' and PCPs' uncertainty regarding the PCP's oncology knowledge/experience, and 6) discrepancies between PCPs and cancer specialists regarding roles (3). Poor and delayed communication between PCP's and oncologists was a recurring issue that warrants further consideration.

One avenue to improve survivorship communication is through the use of electronic health records in an integrated health system (4). While this might work well in an integrated system, it is very difficult in community-based settings because practices do not yet share

EMR's. There is still a great need to study what other factors could improve survivorship care. Although EHR's have become much more popular, many oncologists still use written communication. Nearly 70% used written communication in 2017, which could be contributing to the fragmentation of survivorship care (5). Also, there is still the problem that PCP's are not taking an active role in specific aspects of survivorship care: managing co-morbidities, psychological distress and behavior modifications (4). We are still left to question what factors facilitate or impede communication between oncologist's and PCP's, as well as PCP's and their patients. Klabunde and colleagues suggested that professional norms and office settings can contribute to these relationships. Provider-level exposures of self-reported cancer survivorship training experiences as well as the practice type merits continued research.

This thesis hopes to contribute to understanding the patient – oncologist – PCP communication relationship, as well as uncovering if current solutions, like added training, could improve communication with the goal of providing the best patient care. Survivors who received care from both oncologists and PCP's were mostly likely to receive general preventive care services (6). To what extent are practice type and survivorship training associated with a PCP's frequency of communication with the patient and oncologists on care management after primary cancer treatment? The relationship between primary care professionals and oncology specialists is an important, and often under researched, aspect of survivorship care.

CHAPTER II: MANUSCRIPT

INTRODUCTION

The relationship between primary care professionals and oncologists is an important, and often under researched, aspect of survivorship care. Cancer patients transitioning from treatment to survivorship care present a unique opportunity for providers. Patients are returning to primary care professionals who might not have a lot of experience in survivorship care. This transition can provide dissonance for the patient, especially if their oncologists are not in good communication with the PCP. There is also a discordance in who should be providing certain aspects of care during survivorship. The purpose of this research is to determine factors that facilitate or impede PCP's ability to provide high-quality survivorship care, or even effectively participate in it at all. Specifically, what variables influence PCP's likelihood to have conversations with patients and oncologists about breast cancer survivorship care?

METHODS

Study Population

The ICanCare (Individualized Cancer Care) study follows early-stage breast cancer patients and their primary care providers. From 2013-2015, 5080 patients with early-stage breast cancer or ductal carcinoma in the SEER Registries of Georgia and Los Angeles county were surveyed (7, 8). Women who participated in the study were asked to name their Primary Care Providers, so that these PCP's could also be surveyed. Participants identified 2,946 unique PCPs. Of the 2946 PCP's identified by their patients, 2796 were deemed eligible from screening. Providers were deemed ineligible if they were a different medical specialty, were retired, deceased, or unable to be located (N=150). A stratified sample of eligible PCP's were then

surveyed. Eligible PCP's fit into two categories: high volume or low volume, defined by whether the PCP was linked to more than 1 patient participant. All high volume eligible PCP's (N=618) were invited to participate, and a 10% random sample of providers linked to 1 patient participant (N=234) were selected to receive the mailed surveys. The PCP data set used for these analyses contained 518 eligible primary care physicians who completed the survey, a 60.8% response rate of the PCP's.

Primary Covariates of Interest

The two key covariates of interest are the main practice facility, or practice type, of the PCP, as well as self-reported survivorship training experience. Providers were asked to select which practice type best describes their main practice location, or where they spend the most hours per week practicing. They had to select from one of the 5 response options: Physician Practice (Private Practice), Academic Medical Center, Community Health Clinic, Large Medical Group or Staff-model HMO, and Other. Most of the providers (66.67%) selected Private Practice as their facility type. In an effort to create a substantive comparison group, all other locations were combined into an "other" category.

Survivorship training was measured by the following question: "Have you received Survivorship Training or instruction regarding the late or long-term effects of cancer treatment that cancer survivors may experience over time?". Response options included "Yes, in detail" (4.56%), "Yes, somewhat" (45.24%), and "No" (50.20%). Given the response rates provided, a binary variable was created with "Yes, in detail" and "Yes, somewhat" combined.

Outcomes

The two outcomes of interest are communication with two separate groups (oncologists and patients) about who will manage the patient's care after primary cancer treatment.

Specifically, these outcomes were measured with the questions "How often do you communicate with your breast cancer patient's oncologist about who will manage their care after their primary treatment is finished (Oncologist)?" and "How often do you communicate with your breast cancer patients about who will manage their care after primary treatment is finished (Patient)?" Both questions were answered using a 5-point likert-type scale of "Never, Rarely, Sometimes, Often, and Always" (Figures 2 and 3). For the purposes of analysis, Never, Rarely, and Sometimes were combined into the category of "Less Communication" while Often and Always were combined to create "More Communication" with the oncologists and patients after completion of primary treatment.

PCP-Reported Additional Covariates

The additional covariates included in this analysis are PCP-reported years since completing fellowship, patient volume, race, and gender. Years since completing fellowship was measured as a continuous variable that was split into four groups: <10 years, 10-<20 years, 20-<30 years, and >= 30 years. Originally, both years since fellowship completion and age of the provider were considered in the model. Due to collinearity, age was removed as years in practice is more clinically meaningful.

Patient volume was measured using a 6 item scale with the question: "In the past 12 months, how many of your patients were newly-diagnosed with breast cancer?". The scale-response options consisted of "none, 1-5, 6-10, 11-15, 16-20, more than 20" (Figure 4). From preliminary analyses, it was found that responses to patient volume were clustered around the middle 2 responses (1-5, 6-10) with a skew to the left as more PCP's reported lower than 10 new breast cancer patients compared to more than 10. In an effort to create a substantive comparison group, patient volume was recoded into <6 and >=6.

Gender was recorded as a binary variable with response options of "Male" and "Female" while race was dichotomized for the purposes of analysis into "White" and "Non-White".

<u>Statistical Analysis</u>

Descriptive statistics were run on all variables in the model for the entire cohort alone and by the outcomes of interest – communication with oncologists and patients. A chi-square test was used to test the bivariate association of these variables. Multivariate data analyses were then conducted in SAS using unconditional logistic regression. Interaction assessment was performed with all covariates and the two primary variables of interest (practice type and survivorship training) followed by confounding assessment.

RESULTS

The PCP cohort utilized for these analyses was predominately white (63.94%) with a slightly larger percentage of males (54.37%) (Table 1). Most had more than 10 years of experience in practice (92.28%) and saw fewer than 6 new breast cancer patients on an annual basis (56.54%). Overall, 66.67% were in private practice with about an equal distribution of having/not having survivorship training. Table 2 displays the distribution of the PCP's reported attributes by the frequency of communication (less/more frequent) with oncologists and patients regarding post-cancer treatment care. PCP-reported practice type was significantly associated with communication to the patient but not with the oncologist. Specifically, PCP's in private practice, comprised a greater proportion of providers who reported more vs. less communication with patients (74.90% vs. 58.37%, p<0.0001). Our second exposure of interest, survivorship training, was statistically significantly associated with communication to both oncologists and patients. PCP's who reported partaking in survivorship training, also comprised a greater

proportion of providers who reported more vs. less communication with oncologists and patients, (66.67 vs 42.78, p<0.0001) and (56.03 vs. 42.86, p<0.003) respectively. Greater years in practice was also significantly associated with more frequent communication with oncologist's (p<0.04) as was male gender of the provider (p<0.02). These attributes were not associated with patient communication.

Table 3 depicts the multivariate results for the association of PCP-reported attributes with the frequency of communication to oncologists and patients. Similar to the unadjusted results, private practice was not associated greater communication with the patient's oncologist. The odds of PCP's reporting more frequent communication with oncologists was, however, 2.88 times greater for those who reported having taken survivorship training compared to those who did not (p<0.001). The odds of more frequent oncology communication was 0.67 times less for women than men, however this did not reach statistical significance (p<0.1).

The odds of PCP's reporting more frequent communication with patients was 2.43 times greater for private practice providers than providers in other practice types (p<0.001) and 1.74 times greater for those who reported having taken survivorship training compared to those who did not (p<0.01). None of the other PCP-reported attributed had a statistically significant, or approaching significant, association with more frequent patient communication.

DISCUSSION

Our results suggest that primary care providers who practice in private practice settings were associated with more frequent communication patients about their survivorship care. Intuitively, private practice PCPs may have more time to communicate with patients since most if not all of their patients are fully insured. Fully insured patients are more likely to visit medical

professionals frequently, so there is less of a need to fit several visits into one session as with hospitals that cater to uninsured patients (9).

Our results suggest that PCP's who self-reported experiencing Survivorship Training were more likely to communicate with both patients and oncologists more frequently. This supports the results from the literature. Clarification of roles and knowledge help foster communication between PCP's and other members of the care team (3). This clarification can come in the form of survivorship training.

Our results suggest that male PCP's were more likely to communicate with oncologists. Although not determined in this study, a gender breakdown of the oncologist with which they communicated could be novel. One could hypothesize that male PCP's talked to more male oncologists. It could be interesting to examine the confidence-level of female PCP's in communicating with oncologists and more generally men in a position of authority as social dynamics are likely at play.

CHAPTER III: CONCLUSIONS, PUBLIC HEALTH IMPLICATIONS

The public health implications of this study revolve around the need for more survivorship training, as well as more resources for non-private practice providers. This study has reaffirmed the effectiveness of survivorship training for PCP's. PCP's had better communication if they received training, which can lead to better and more informed cancer survivorship care. It was also found that private practice doctors communicated more frequently with patients, which could indicate that private practice has more time and resources to spend on their patient. Unfortunately, those who need this privileged care the most cannot afford it. To provide more equitable survivorship care, PCP's need to be allotted the time to address patient concerns and the resources to treat conditions that may arise.

A potential limitation of this project is that the sampling method of PCP's is not un-biased. All PCP's who had more than one patient in the ICanCare dataset were included in the analysis. Whereas, a random sample of PCP's with only one patient was conducted. This means we might have more PCP's who have experience in survivorship care than is representative. However, what is gained from this sampling decision is having a large enough sample experiences to less experienced providers.

Another potential drawback is the self-reported nature of the study. Self-reporting can introduce response bias, which may not be possible to address.

The final, and arguably the most pertinent, major limitation of this project is the lack of representation of race. The distribution of race in this study is not generalizable amongst PCP's in the United States. 6% of PCP's are Hispanic, but this sample only included about 1% Hispanic (10). Also, the Asian population is far higher in this study (27.3%) than the averages (11.2%). I think it is also important to highlight that mixed-race options were not on this survey.

Individuals can identify with more than one racial ethnic group, and by only providing one

option we are missing the heterogeneity that exists within race.

POTENTIAL FUTURE STEPS

Future directions include collecting my own data, so that different or augmented questions can be asked. Ultimately, the goal of this study was to view any barriers and facilitators to communication that providers might have. As well as thinking about how these factors could either be controlled or improved for future providers. We need to be focusing on not just the cancer care treatment, but also the integral transition point after remission. Also, we need to be addressing the gaps that exist between practice types to achieve public health.

REFERENCES

1. Jun J. Mao, Marjorie A. Bowman, Carrie T. Stricker, Angela DeMichele, Linda Jacobs, Dingyun Chan, and Katrina Armstrong. (2009). Delivery of Survivorship Care by Primary Care Physicians: The Perspective of Breast Cancer Patients .Journal of Clinical Oncology 2009 27:6, 933-938 DOI: 10.1200/JCO.2008.18.0679 Journal of Clinical Oncology 27, no. 6 (February 20, 2009) 933-938.

2. Laura P. Forsythe, Carla Parry, Catherine M. Alfano, Erin E. Kent, Corinne R. Leach, David A. Haggstrom, Patricia A. Ganz, Noreen Aziz, Julia H. Rowland, Use of Survivorship Care Plans in the United States: Associations With Survivorship Care, *JNCI: Journal of the National Cancer Institute*, Volume 105, Issue 20, 16 October 2013, Pages 1579–1587, https://doi.org/10.1093/jnci/djt258

3. Dossett, L.A., Hudson, J.N., Morris, A.M., Lee, M.C., Roetzheim, R.G., Fetters, M.D. and Quinn, G.P. (2017), The primary care provider (PCP)-cancer specialist relationship: A systematic review and mixed-methods meta-synthesis. CA: A Cancer Journal for Clinicians, 67: 156-169. https://doi.org/10.3322/caac.21385

4. Sada, Y. H., Street, R. L., Jr, Singh, H., Shada, R. E., & Naik, A. D. (2011). Primary care and communication in shared cancer care: a qualitative study. *The American journal of managed care*, *17*(4), 259–265.

5. Klabunde, CN, Haggstrom, D, Kahn, KL, et al. Oncologists' perspectives on post-cancer treatment communication and care coordination with primary care physicians. *Eur J Cancer Care*. 2017; 26: e12628. https://doi.org/10.1111/ecc.12628

6. Snyder, C.F., Earle, C.C., Herbert, R.J. *et al.* Trends in Follow-up and Preventive Care for Colorectal Cancer Survivors. *J GEN INTERN MED* **23,** 254–259 (2008). https://doi.org/10.1007/s11606-007-0497-5

7. Katz, S. J., Ward, K. C., Hamilton, A. S., Mcleod, M. C., Wallner, L. P., Morrow, M., Jagsi, R., Hawley, S. T., & Kurian, A. W. (2018). Gaps in Receipt of Clinically Indicated Genetic Counseling After Diagnosis of Breast Cancer. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*, *36*(12), 1218–1224. https://doi.org/10.1200/JCO.2017.76.2369

8. Wallner, L. P., Li, Y., McLeod, M. C., Gargaro, J., Kurian, A. W., Jagsi, R., Radhakrishnan, A., Hamilton, A. S., Ward, K. C., Hawley, S. T., & Katz, S. J. (2019). Primary care provider-reported involvement in breast cancer treatment decisions. *Cancer*, *125*(11), 1815–1822. https://doi.org/10.1002/cncr.31998

9. Institute of Medicine (US) Committee on the Consequences of Uninsurance. Care Without Coverage: Too Little, Too Late. Washington (DC): National Academies Press (US); 2002. 3, Effects of Health Insurance on Health.Available from: https://www.ncbi.nlm.nih.gov/books/NBK220636/

10. Xierali, I. M., & Nivet, M. A. (2018). The Racial and Ethnic Composition and Distribution of Primary Care Physicians. *Journal of health care for the poor and underserved*, *29*(1), 556–570. https://doi.org/10.1353/hpu.2018.0036

TABLES

Table 1: Distribution of PCP-reported attributes (N=517)[1]

Variable	N (%)
Practice Type	
Private Practice	338 (66.67)
Other	169 (33.33)
Survivorship Training	
Yes	251 (49.80)
No	253 (50.20)
Years	
<10 years	38 (7.72)
10-<20 years	168 (34.15)
20-<30 years	173 (35.16)
>=30 years	113 (22.97)
Volume	
<6	281 (56.54)
>=6	216 (43.46)
Gender	
Female	230 (45.63)
Male	274 (54.37)
Race	
Non-White	172 (36.06)
White	305 (63.94)

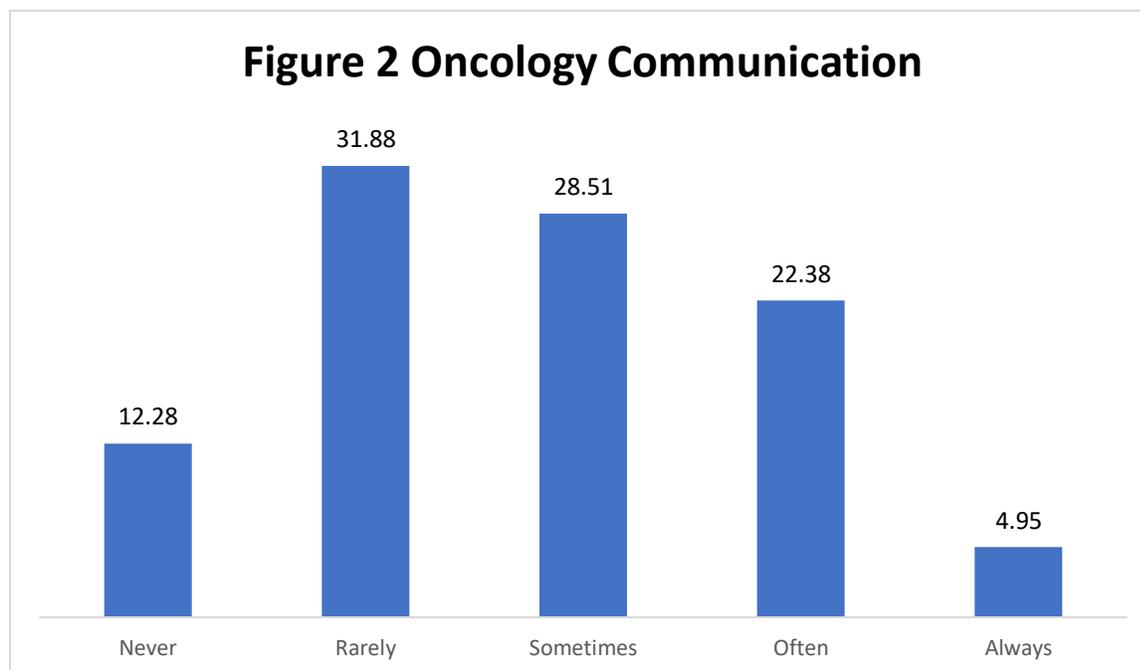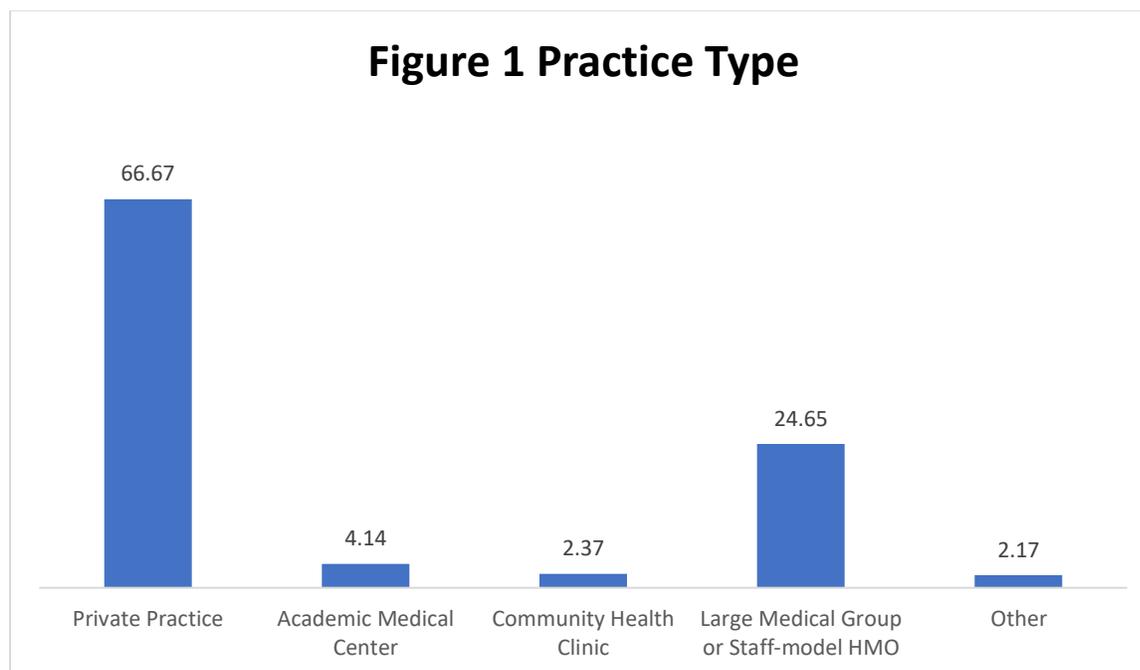[1] Missing values have been excluded, so numbers do not always add to the total (N=517)

Table 2: Distribution of PCP-reported attributes by PCP-reported communication with Oncologists and Patients (N=517)
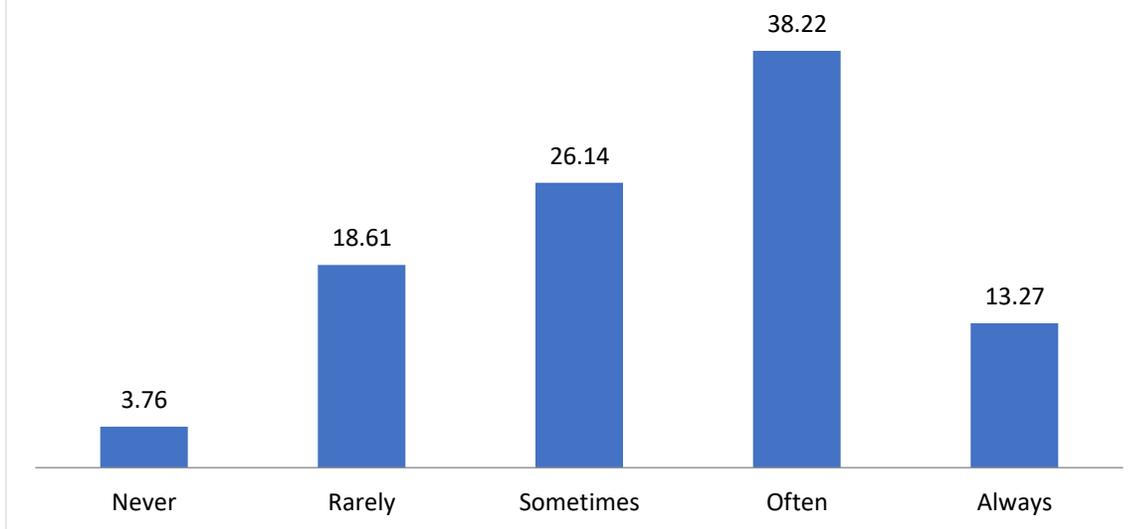
	Communication w/ Oncologist			Communication w/ Patient		
Variable	Less N (%)	More N (%)	P	Less N (%)	More N (%)	P
Practice Type			0.12			<.0001
Private Practice	238 (64.85)	99 (72.26)		143 (58.37)	194 (74.90)	
Other	129 (35.15)	38 (27.74)		102 (41.63)	65 (25.10)	
Survivorship Training			<.0001			<0.003
Yes	157 (42.78)	92 (66.67)		105 (42.86)	144 (56.03)	
No	207 (56.87)	46 (33.33)		140 (57.14)	113 (43.97)	
Years			0.04			0.66
<10 years	30 (8.38)	7 (5.26)		20 (8.40)	17 (6.72)	
10-<20 years	126 (35.20)	42 (31.58)		85 (35.71)	83 (32.81)	
20-<30 years	131 (36.59)	42 (31.58)		83 (34.87)	90 (35.57)	
>=30 years	71 (19.83)	42 (31.58)		50 (21.01)	63 (24.90)	
Volume			0.10			0.91
<6	205 (75.37)	67 (24.63)		132 (48.53)	140 (51.47)	
>=6	144 (68.57)	66 (31.43)		103 (49.05)	107 (50.95)	
Gender			0.02			0.64
Female	179 (49.04)	51 (37.50)		116 (47.74)	114 (44.19)	
Male	186 (50.96)	85 (62.50)		127 (52.26)	144 (55.81)	
Race			0.35			0.81
Non-White	124 (36.90)	41 (32.28)		80 (35.09)	85 (36.17)	
White	212 (63.10)	86 (67.72)		148 (64.91)	150 (63.83)	

Table 3: Odds ratio for PCP-reported attributes associated with frequency of communication to Oncologists and Patients.

Variable	Oncologist (95% CI)	Patient (95% CI)
Practice Type		
Private Practice	1.29 (0.78, 2.15)	2.43(1.55, 3.78)***
Other (ref)	1.00	1.00
Survivorship Training		
Yes	2.88 (1.82, 4.54)***	1.74 (1.18, 2.58)**
No (ref)	1.00	1.00
Years		
>= 30 years	1.81 (0.63, 2.11)	1.13 (0.46, 2.78)
20-<30 years	1.11 (0.40, 3.09)	1.00 (0.43, 2.33)
10-<20 years	1.19 (0.43, 3.28)	1.06 (0.46, 2.44)
<10 years (ref)	1.00	1.00
Volume		
>=6	1.35 (0.86, 2.10)	0.88 (0.59, 1.31)
<6 (ref)	1.00	1.00
Gender		
Female	0.67 (0.42, 1.07)	0.94 (0.62, 1.43)
Male (ref)	1.00	1.00
Race		
Non-White	0.93 (0.57, 1.51)	1.17 (0.76, 1.79)
White (ref)	1.00	1.00
=<0.01, *=<0.001		

FIGURES

Figure 1 Practice Type

Bar chart showing:
- Private Practice: 66.67
- Academic Medical Center: 4.14
- Community Health Clinic: 2.37
- Large Medical Group or Staff-model HMO: 24.65
- Other: 2.17

Figure 2 Oncology Communication

Bar chart showing:
- Never: 12.28
- Rarely: 31.88
- Sometimes: 28.51
- Often: 22.38
- Always: 4.95

Figure 3 Patient Communication

Never	Rarely	Sometimes	Often	Always
3.76	18.61	26.14	38.22	13.27

Figure 4 Patient Volume

(None)	(5-10)	(6-10)	(11-15)	(16-20)
3.22	53.32	30.99	6.84	3.02