



PAPER

Enhancing palliative care patient access to psychological counseling through outreach telehealth services

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Abstract

Context: Palliative care encompasses an interdisciplinary team, including mental health care professionals, to address psychological distress of cancer patients.

Objectives: To present the implementation of an outreach counseling program via videoconferencing or telephone to patients receiving care in an outpatient palliative care clinic and to compare patients using this service to those who only received psychological counseling in our outpatient clinic.

Methods: We conducted a retrospective chart review of cancer patients seen for psychology counseling services in an outpatient supportive care center between June 2015 and March 2017.

Results: We reviewed 2072 unique patients (52% of the total patients seen at the outpatient Supportive Care Center), who had 4567 total counseling encounters across outreach and outpatient settings. A total of 452 (22%) patients participated in a combination of outpatient and outreach counseling services. Patients who participated in outreach services had significantly more encounters (311 [69%] had two to five sessions) compared with those who had outpatient services only (1137 [70%] had one session only) ($P < .001$). Outreach patients also had shorter times between the initial and follow-up encounters (median 14 days) compared with those who had outpatient services only (median 30 days) ($P < .0001$).

Conclusions: Outreach telehealth counseling services was found to enhance palliative care patient access to psychological counseling. These services represent an additional modality for providing continuous psychological care.

KEYWORDS

cancer, counseling, oncology, outpatient palliative care, palliative care medicine, palliative care psychology, psychological distress in palliative care, psycho-oncology, supportive care, telemental health

*Guzman and Ann-Yi should be considered joint first author

INTRODUCTION

Emotional distress in cancer patients is understandable with commonly expected responses to include fear, sadness, and grief.^{1,2} However, some patients develop more clinically significant conditions such as anxiety, depression, and adjustment disorders with an estimated 35% to 50% of cancer patients meeting criteria for psychological disorders.³⁻⁵ In addition, psychological and existential distress likely increases as illness progresses and at the end of life.⁶ Existential distress adds to both the patient's and the family's suffering and is an important challenge for the health care team during end-of-life care.⁷⁻⁹

To address psychological and existential distress in advanced cancer patients, palliative care provides an interdisciplinary approach that includes comprehensive symptom management and psychological, spiritual, and social support.^{10,11} According to the World Health Organization, palliative care aims to improve the quality of life of patients and families who are facing problems associated with terminal illnesses by providing prevention and relief of suffering. Thus, comprehensive palliative care integrates psychosocial treatment. Trained mental health providers can not only encourage expression of emotions but also, when indicated, use sophisticated evidenced-based approaches, including cognitive behavioral therapy and acceptance and commitment therapy, to address clinically significant distress.¹²⁻¹⁵ An interdisciplinary team approach enhances patient care and supports the medical team in challenging cases with regard to patients and families so that neither physical symptoms nor emotional suffering is neglected.¹²

While research supports the efficacy of traditional in-person psychosocial interventions for cancer patients at diagnosis and over the course of the illness experience,¹⁶ such programs may not be well-attended by patients residing in rural areas or areas distant from their care center. Some patients may experience limited resources and/or transportation problems, or have physical limitations derived from their health condition that make attendance to counseling sessions difficult. Further, while the field of palliative psychology is growing, it is a highly specialized area requiring specific expertise^{14,17} which may be even more challenging to locate and access in rural areas. Thus, employing interventions that can be widely disseminated may facilitate access. Technologies—including the Internet, telephone, and videoconferencing—have allowed easy access to mental health services and have enhanced follow-ups.¹⁸ Telehealth programs have significantly improved the quality of care for patients.¹⁸ Specifically, telemental health has shown to improve access, increase efficiency, reduce costs, increase patient satisfaction, and promote flexibility.^{19,20}

Telehealth in palliative care is considered a feasible and useful resource with the potential to improve quality of life and clinical effectiveness.²¹

Therefore, we have incorporated a novel outreach program, conducted by Master's Level Licensed Professional Counselors (LPCs), to provide remote psychosocial counseling via videoconferencing or telephone to cancer patients receiving services through our outpatient Supportive Care Center. Such services complement the face-to-face care they receive within the Center. The purpose of this retrospective

chart review study was to characterize the implementation of our outreach counseling program and to compare those who received these outreach services to those who received psychological counseling in our outpatient clinic only, on demographics and details regarding the psychology encounter.

METHODS

The interdisciplinary team at our outpatient palliative care clinic includes physicians, nurses, a pharmacist, psychologists, and LPC counselors. Members of the medical team may refer a patient to an LPC counselor after identifying a patient and/or family in emotional distress who may benefit from counseling services. Due to the financial billing structure of our institution, psychologists primarily work in the inpatient setting since preauthorization is not required for psychology services. However, in our outpatient center, mental health services provided by a psychologist requires a pre-authorization with insurance which may be a barrier for services for some patients. Therefore, our counselors, who do not bill for services at our institution, primarily serve in the outpatient setting which ensures that all patients attending the outpatient supportive care clinic have access to this service. Once an outpatient is referred to psychology services, typically, an LPC counselor conducts an initial evaluation and communicates the findings with the consulting palliative care provider and clinic nursing staff. Recommendations from this evaluation can include referrals to address complex mental health issues to our psychologists or psychiatrists at our institution or to providers in the patient's local area if coming to our institution for follow-up is not feasible. Referrals to social work, case management, rehabilitation services, and chaplaincy are also made, depending on patient needs. Patients can also receive follow-up counseling sessions with the LPC at the next supportive care clinic appointment and/or through our outreach telemental health counseling program. Outreach counseling services are offered to patients by our LPCs who may require more immediate follow-up than can be provided at their next supportive care clinic appointment. Depending on patient's preferences, services are offered by either telephone and/or a Health Insurance Portability and Accountability Act-compliant communication system via Facetime or videoconferencing.

Data were collected by conducting a retrospective medical chart review of patients who received supportive care psychology counseling services provided by LPC counselors during June 2015 through March 2017 at the Supportive Care Center at The University of Texas MD Anderson Cancer Center. Patients provided mental health services by psychologists were excluded from this study. The eligibility criteria included being referred to an LPC counselor by a palliative care provider and being age 18 years or older.

The sample included 2072 unique patients who participated in counseling services of whom 1620 (78%) received counseling services during in-person outpatient clinic visits only (outpatient-only group) and 452 (22%) received both outpatient and outreach counseling services (outreach group). Patients who have transitioned to hospice

services are no longer followed by our center, and therefore they were not part of this sample. Of the unique patients who received both outpatient and outreach, 404 (89%) outreach patients had one outpatient encounter with a counselor face-to-face before their first outreach counseling session, and 48 (11%) had an outpatient encounter with a physician but never saw a counselor before their first outreach counseling session. For the purpose of this paper and analysis, we define those receiving outreach counseling services as those with or without a prior out-patient encounter with a counselor. Data collected comprised patient demographics characteristics (eg, age, sex, and race/ethnicity), cancer diagnosis, and psychology service characteristics, including type of encounter (ie, outpatient versus outreach), session length, number of sessions or encounters, Edmonton Symptom Assessment System (ESAS) associated with the patient's initial counseling encounter, and psychological interventions provided. The ESAS is a widely used and validated self-administered measure of symptom distress assessing 10 common symptoms, including depression and anxiety, on a scale of 0 to 10, with 0 indicating the symptom is absent to 10 indicating it is at its worst possible severity. It is routine clinical practice for all patients attending our Supportive Care Center to complete this tool at every clinic visit.²²

Data were de-identified for analysis. This study was approved by the University of Texas MD Anderson Cancer Center Institutional Review Board (IRB) (Protocol No. PA17-0455). This protocol was granted a waiver of informed consent/authorization to use and disclose protected health information by the MD Anderson IRB to conduct this retrospective chart review study.

Data were summarized using standard descriptive statistics such as mean, standard deviation, median, interquartile range, and range for

continuous variables and frequency and proportion for categorical variables. Association between categorical variables was examined by a chi-square test or Fisher exact test as appropriate. A Wilcoxon rank-sum test was used to examine the difference in continuous variables between two locations of service. (ESAS scores were not normally distributed, which violated the assumption of two-sample t-test. Thus, we applied Wilcoxon rank-sum test instead of two-sample t-test on ESAS scores.) A general linear model was applied to evaluate change in number of counselor encounters, and total time of encounter service between two locations over time. All computations were carried out by SAS 9.4 (SAS Institute Inc., Cary, NC).

RESULTS

Tables 1 and 2 provide a summary of the demographic and medical characteristics for the total sample, and by service location (outpatient only or outreach). Most of the total sample was female (1187, 57%) and white (1414, 68%), and the median age was 59 years. The sample represented a variety of cancer diagnoses; the most prevalent were gastrointestinal 22% (N = 460), thoracic 15% (N = 318), and breast 15% (N = 313) cancers. There were significantly more women in both settings (outpatient only = 894, 55.2%, outreach = 293, 64.8%; $P = .0002$). Most patients had only one encounter (N = 1161, 56%), most of which occurred in the outpatient setting (N = 1134, 70%). However, a significantly higher percentage of the outreach group were able to receive two or more sessions than in the outpatient-only group (two to five session = 311, 69%, 6 to 10 sessions = 90, 20%, $P < .0001$). In our outpatient/outreach group (N = 452), 24 (5%) patients had their

TABLE 1 Demographic and clinical characteristics

Covariate		Total Cohort	Location of Service		P Value
			Outpatient Only	Outpatient + Outreach	
All patients	n (%)	2072 (100)	1620 (100)	452 (100)	
Age	median (IQR), years	59 (49, 67)	59 (49, 67)	58 (49, 67)	
Sex	n (%)				
	Female	1187 (57)	894 (55)	293 (65)	.0002
	Male	885 (43)	726 (45)	159(35)	
Race/ethnicity, n (%)	Unknown	4			
	Asian	94(5)	86(5)	8(2)	.0017*
	Black	247(12)	199(12)	48(11)	
	Hispanic	299(15)	216(13)	83(18)	
	Others	14(1)	12(1)	2(0.4)	
	White	1414(68)	1103(68)	311(69)	
Number of sessions (%)	1	1161(56)	1137(70)	24(5)	
	2-5	774(37)	463(29)	311(69)	
	6-10	110(5)	20(1)	90(20)	
	≥11	27(1)	0(0)	27(6)	
Days between first encounter and first follow-up; median (IQR), days		26 (12, 52)	30 (21, 70)	14 (7, 28)	<.0001

*P value denotes overall difference in race/ethnicity distribution between outpatient only and outpatient + outreach.

TABLE 2 Cancer diagnoses

Diagnosis	No.	%
No evidence of disease	7	.3
Breast cancer	313	15
Gastrointestinal cancer	460	22
Genitourinary cancer	166	8
Gynecologic cancer	195	9
Head and neck cancer	254	12
Hematologic cancer	95	5
Neurologic cancer	62	3
Sarcoma	81	4
Skin cancer	76	4
Thoracic cancer	318	15
Other	45	2
Total	2072	100

first encounter through outreach, and the remaining 428 (95%) patients had their first encounter in clinic. For all patients who participated in more than one session, a median of 26 days elapsed between the first encounter and the second encounter. However, the outreach group had significantly less time between the first encounter and second encounter (median = 14 days, $P < .0001$) compared with the outpatient-only group (median = 30 days).

Table 3 summarizes patient ESAS results at the visit associated with their initial encounter with an LPC counselor. The total sample had a median score of 2 on depression and 4 on anxiety. Patients who participated in outreach services had significantly higher median

scores on depression and anxiety compared with those who received outpatient counseling only ($P < .0001$ and $P < .0001$, respectively).

Table 4 summarizes characteristics of counseling encounters for patients receiving outpatient services only and patients receiving outreach services. Twenty percent of the total sessions lasted 10 to 19 minutes, 18% were 20 to 29 minutes, 26% were 30 to 39 minutes, and 32% were longer than 40 minutes. Among patients in the outreach group, most preferred the telephone ($N = 898$, 94%), with the remainder using FaceTime ($N = 41$, 5%) and videoconferencing ($N = 18$, 2%). A total of 957 outreach sessions were provided, representing 21% of the total counseling encounters. Outpatient sessions were significantly longer than outreach sessions (median outpatient session = 30 minutes, median outreach session = 15 minutes; $P < .0001$).

DISCUSSION

Psychological interventions can improve quality of life and the overall experience of patients facing an advanced cancer diagnosis.^{23,24} Although psychological services for cancer patients are known to be effective,²⁵⁻³⁰ there remain many barriers for patients to accessing and engaging in counseling services regularly, such as lack of information regarding psychological care, patient's desire to manage their own distress, as well as shame due to stigma associated with mental health services.^{31,32} Other barriers include having access to mental health care, costs for services, and limited availability of providers that accommodate patient's schedules.^{19,20} These barriers may be greater for those experiencing advanced disease and undergoing end-of-life care. To overcome these limitations, we established and piloted an

TABLE 3 Edmonton Symptom Assessment Scale at first LPC encounter

Covariate	Location of Service	N	Median (IQR)	Mean (SD)	P Value
ESAS Depression-Initial	All	1978	2 (0,5)	3.09 (3.07)	
	Outpatient only	1566	2 (0,5)	2.93 (3.04)	<.0001
	Outpatient + outreach	412	3 (0,6)	3.70 (3.10)	
ESAS Anxiety-Initial	All	1975	4 (1,6)	3.82 (3.19)	
	Outpatient only	1563	3 (0,6)	3.66 (3.19)	<.0001
	Outpatient + outreach	412	5 (2,7)	4.42 (3.09)	

Abbreviations: ESAS, Edmonton Symptom Assessment Scale; IQR, interquartile range.

TABLE 4 Summary of LPC encounters by location

Covariate	Levels	All	Location		PValue
			Outpatient only	Outreach only	
Encounters (%)		4567(100)	3610(79)	957(21)	
Time per encounter, median (interquartile range), min		30 (20-45)	30 (25-45)	15 (10-20)	<.0001
Outreach mode (%)	FaceTime			41(4)	
	Phone			898(94)	
	Video			18(2)	

outreach program offering counseling via videoconferencing or telephone for cancer patients receiving care in an outpatient supportive care clinic. We found that these outreach counseling services were attainable, increased the number of follow-up sessions, and decreased the time between the initial and follow-up sessions.

Our results show that those patients who participated in outreach services, self-reported higher scores on both depression and anxiety on the ESAS (median 3 for depression, 5 for anxiety), than those who received out-patient clinic counseling alone. These scores are much higher than those reported in a sample of cancer patients who had a median of 2 and 3 for depression and anxiety, respectively, on the ESAS. Research suggests that more frequent follow-ups are warranted for those scoring 2 or above on the ESAS depression and anxiety scales, as this is the established cut-off indicating further evaluation and possible need for ongoing counseling.³³ Certainly, outreach services provided an opportunity to offer more timely intervention rather than waiting for patient's next clinic appointment, which typically occurs monthly at our center. Further research is needed to evaluate ways to enhance psychology services delivery for patients receiving palliative care. In addition, future studies might include measurement of session length according to billable units since this might have financial implications for the development of clinical practice.

CLINICAL IMPLICATIONS

Our outreach counseling services provided another modality from the traditional in-person setting for continued counseling for supportive care patients. Our study demonstrated that outreach services can offer a higher level of follow-up than outpatient care alone. Results indicated increased number of follow-up sessions and decreased time between the initial and follow-up sessions for those patients who participated in the outreach program in addition to traditional face-to-face counseling sessions. Indeed, patients with advanced cancer are likely to require ongoing psychological support, given that symptom burden may increase as their disease progresses and coping may be challenged as decisions regarding their health care become difficult. Outreach modalities may reduce the barriers to accessing mental health services and may enhance patient compliance with psychological interventions.^{21,34} Incorporating an outreach program utilizing telemental health modalities may also contribute to increased patient satisfaction and reduce cost of care for patients^{18,35} although this requires further study in the palliative care setting.

Future research efforts should focus on identifying barriers to reception of and access to counseling services for patients receiving palliative care. Patients may have reservations about mental health care due to stigma or shame associated with psychological services.³² They also may prefer face-to-face counseling or have limited to no technology to support participation in via telemental health modalities.²⁰ Further, efforts should be invested in identifying patients who would benefit most from outreach counseling services via telehealth, identifying potential barriers to access/reception of such services,

and evaluating the efficacy of counseling through telemental health modalities to further enhance this option for cancer patients receiving palliative care.

STUDY LIMITATIONS

There were limitations to this chart review study that warrant further discussion. First, we did not have data on reasons for refusal to participation in counseling services in general or outreach services via telehealth, in particular. Such data will be important for future dissemination of our counseling services including our unique outreach program. Second, referral to our supportive care psychology team is a function of available resources. At present, LPCs provide the majority of the psychosocial care in the outpatient clinic setting, primarily since they do not bill and are able to screen and offer at least an initial evaluation to all patients in need. Our licensed clinical psychologists devote majority of their practice to inpatient care. They are only available for outpatient clinic patients with the most severe distress who need immediate and frequent in-person follow-up and/or those requiring couples or child-focused counseling. With additional resources, we could further enhance service delivery in both settings. Other palliative care psychosocial programs having more or less resources may find rates of referral and service utilization different from ours. Financial reimbursement is a barrier for the better implementation of follow-up. In our institution counselors are not billing and therefore are able to provide outreach services but other institutions will need to consider this potential limitation in the development of this type of program.

In our study, more patients chose to participate in outreach services by telephone rather than FaceTime or videoconferencing. We did not ascertain any qualitative data regarding these modality preferences which should be evaluated in future studies. Anecdotally, patients have reported preference for telephone due to feeling self-conscious about appearance on video, not having access to devices for Facetime, reluctance to install the videoconferencing application we used, and difficulties related to internet connectivity. During the 2-year period of observation, there were no significant changes in the characteristics of both providers and patients. There were also no significant changes in health care legislations or medical technologies. However, there is the possibility that over time, some of these changes might occur and result in significant changes in the patterns of availability of telehealth services. This should be monitored in future research.

Finally, our study did not collect data such as reason for referral, session content, nature of interventions, therapy outcomes, patient perception of counseling services in either modality, or reasons for difference in session lengths between outpatient and outreach settings. To enhance our knowledge about counseling services in either of these modalities, future studies should include assessment of these areas. In addition, future research should attempt to better characterize the demographics of patients referred for counseling as compared with those not referred to counseling services.

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CONFLICTS OF INTEREST

None.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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