

“Doing palliative care with my hands tied behind my back”: telepalliative care delivery for oncology inpatients during a COVID-19 surge

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Abstract

New York City was a “global COVID-19 hotspot” in spring 2020. Many health teams rapidly transitioned to telehealth platforms. Little is known about the experiences of inpatient palliative care services who delivered telehealth services during the pandemic. This study was aimed to explore the experiences of an interdisciplinary palliative care team in meeting the holistic needs of oncology inpatients via telehealth over a 10-week period during the first COVID-19 surge. A targeted sample of interdisciplinary palliative specialists at an urban comprehensive cancer center participated in in-depth interviews that explored participants’ experiences delivering physical, psychosocial, and spiritual care via telehealth. An interdisciplinary coding team followed a rigorous thematic text analysis approach and met regularly to reach consensus on emerging themes. Eleven palliative specialists from six disciplines (chaplains, medicine, nursing, pharmacy, physician assistant, and social work) participated. Seventy-three percent reported not receiving telehealth training prior to COVID-19 and 64% were “not at all” or “somewhat comfortable” delivering telepalliative care. Several themes were identified, including the barriers related to telehealth, the impact of telehealth on the quality of relationships with patients, their families, and coworkers, and the changes in perceived self-efficacy of fulfilling job responsibilities. Telehealth use has increased significantly during COVID-19, requiring further evaluation of its utility. Participants reported both positive and negative inpatient telepalliative care experiences associated with various domains of professional functioning, such as communication, relationships with key stakeholders, and self-efficacy. Enhanced telehealth training and support must be improved to sustain the palliative workforce and promote high-quality patient and family care in the future.

Lay summary

In spring 2020, New York City was a COVID-19 global hotspot. The palliative care team at a major cancer center rapidly transitioned to a “virtual service” (i.e., telehealth) without any physical contact with oncology inpatients for a 10-week period. No infrastructure for inpatient telehealth had been established prior to the transition. We wanted to explore how effective the interdisciplinary palliative care team felt in meeting the psychosocial, spiritual, and physical needs of patients and their families via telehealth. The palliative care team consisted of advanced practice providers, physicians, a chaplain, pharmacist, and social worker. Through participant interviews, our research team identified common themes related to the barriers and facilitators of telehealth; various effects on the quality of relationships with patients, their families, and coworkers; and diverse experiences related to the team’s perceived effectiveness in delivering telepalliative care. There are several implications to consider. Inpatient practice settings must design telehealth infrastructures to ensure both patient and provider protections when in-person care is not possible. Multilevel policies must direct investments in telehealth training for health professionals to support high-quality care during future public health crises. Research should be directed toward developing and measuring enhanced telehealth interventions to support effective and holistic virtual palliative care delivery for inpatient settings.

Keywords Telehealth, Telemedicine, Palliative care, Psychosocial care, Communication, COVID-19

Implications

Practice: Inpatient practice settings must design telehealth infrastructures to ensure both patient and provider protections when in-person care is not possible.

Policy: Multilevel policies must direct investments in telehealth training for health professionals to support high-quality palliative and psychosocial care during future public health crises.

Research: Research should develop and measure enhanced telehealth interventions to support improved, effective, and holistic virtual palliative care delivery in the inpatient setting.

BACKGROUND

The value, efficacy, and potential of palliative and end-of-life care delivery via telemedicine have been the subject of discussion since the early 2000s [1, 2]. Multiple studies suggested that patients were amenable to telepalliative care (i.e., palliative care services delivered via telehealth) as a valuable complement to traditional consultation strategies [3, 4]. However, few studies rigorously evaluated outcomes [5], examined patient and provider experiences in vivo [6], or explored how telepalliative care delivery could be utilized in an inpatient setting. Prior to 2020, in-person encounters remained a standard mechanism for palliative care delivery.

In March of 2020, a surge of COVID-19 cases rendered New York City a global hotspot. During this period of heightened uncertainty regarding disease transmissibility and shortages of personal protective equipment, multiple palliative care programs emergently pivoted to telehealth for inpatient and outpatient consultations [7, 8]. While patient satisfaction regarding telepalliative care in early 2020 has been described [9–12], the provider experience is less well characterized and has largely focused on the outpatient setting. Few studies have described the complexities of transitioning from in-person, full-scope palliative care delivery in the inpatient consultative setting to a largely virtual process, particularly in the context of a public health emergency [8, 13]. To our knowledge, none have described the challenges inherent in attempting to capture a broader contextual understanding of inpatient palliative care virtually in the setting of limited personal protective equipment, widespread anxiety about viral transmission, and limited telemedicine awareness and capabilities at the individual provider level. In this qualitative study, we interviewed interdisciplinary palliative care specialists about their experiences delivering telepalliative care (e.g., physical, psychosocial, spiritual care) over a 10-week period for oncology inpatients and their families during the first COVID-19 surge in New York City.

METHODS

Participants and recruitment

This study was reviewed and approved as an exempt protocol by the hospital's Institutional Review Board. A targeted sample of palliative care specialists at a major urban comprehensive cancer center were contacted via email by the study's Principal Investigator (W.E.R.) and asked if they were willing to participate in a virtual interview. Of the 31 specialists contacted by email, 11 responded, and all were interviewed. Eligible participants included inpatient palliative specialist specialists who transitioned to telehealth care during COVID-19. In addition, participants needed to have at least 1-year clinical palliative care experience prior to the hospital's COVID-19 telehealth service changes. To capture a range of perspectives and experiences across palliative care specialties, participants were purposefully recruited from diverse clinical roles, including: social workers, pharmacists, chaplaincy services, physicians, and advanced practice providers (e.g., physician assistants, nurse practitioners).

Data collection

All interviews took place between November 2020 and January 2021 over the Zoom videoconferencing platform

(Zoom Video Communications, Inc.). The study PI (W.E.R.) conducted each interview, given his unique positionality as both a psycho-oncology researcher and palliative care nurse practitioner. This shared professional background between researcher and participant had two methodological advantages: (1) the interviewer's content expertise facilitated detailed follow-up questions and (2) the shared experiences fostered empathy, allowing vulnerable subjects to feel understood while discussing difficult situations. The benefits of being an "insider researcher" have been similarly demonstrated in other qualitative studies of oncology settings [14]. An experienced qualitative methodologist (K.A.L.) advised on the study and provided input on the interview guide (Table 1).

At the start of the interview, participants engaged in a brief verbal consent discussion where the researcher reviewed the study's objectives and steps to protect confidentiality. All participants gave their consent to audio-record the discussion. Then, the researcher administered a brief sociodemographic questionnaire. Utilizing a phenomenological approach [15], interviews followed a semi-structured guide (Table 1) to explore participants' lived experiences delivering inpatient palliative care via telehealth during the spring 2020 COVID-19 surge in New York City, including perceived effectiveness at supporting patients' psychosocial, spiritual, and emotional needs. Interviews also explored barriers and facilitators of telepalliative care, including the perceived impact of telehealth on the quality of their relationships with patients, families, and colleagues. Interviews lasted approximately 60 min and were recorded using Zoom software. Data collection continued until thematic saturation, defined as the point at which no new concepts emerged from each interview topic [16]. Monthly study team meetings were held during data collection to determine whether saturation had been achieved.

Analysis

Demographic data were de-identified and descriptively analyzed. Interviews were transcribed verbatim and de-identified by the study coordinator (C.M.) and reviewed for accuracy by the first two authors (W.E.R. and K.A.L.). Transcripts

Table 1 | Overview of interview discussion guide with major probes

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- What was it like for you to deliver palliative care via telehealth during COVID-19?
 - What were some of the biggest challenges to delivering palliative care in this way?
 - What were the items you enjoyed about providing care via telehealth?
 - Can you tell me about the experience of managing pain and other symptoms, especially for complex symptom burdens, using telehealth?
 - What was it like to address patients' and families' psychosocial needs via telehealth during COVID-19?
 - How effective did you feel you were at being able to meet these needs?
 - Did you feel you were able to address spiritual and emotional needs using telehealth?
 - Tell me about how you integrated spiritual and emotional assessments into your telehealth care.
 - How effective did you feel in meeting these needs? Tell me more.
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were then manually coded using an applied thematic text analysis approach [17]. An interdisciplinary coding team (W.E.R., K.A.L., C.M., P.A.P.) first coded a subset of transcripts ($n = 5$) using a list of a priori codes derived from the domains of the interview guide (e.g., “impact of technology,” “self-efficacy”). The coding team met to refine code names and definitions and incorporated inductively derived codes based on novel concepts that emerged from the data. After establishing the codebook, the team then independently coded the remaining transcripts, meeting regularly to achieve consensus on emerging concepts and to resolve discrepancies. Once all data were coded, the team grouped the codes into conceptual categories, and completed a secondary review of statements grouped into each category (e.g., “telehealth barriers”) to identify primary themes. Team members first independently reviewed each category, then met to reach consensus on recurring themes.

Results

Participants ($N = 11$) represented six disciplines, including a chaplain ($n = 1$), pharmacist ($n = 1$), physician assistant ($n = 1$), social worker ($n = 1$), physicians ($n = 3$), and nurse practitioners ($n = 4$). The average age was 47.1 and the majority identified as female (92%) and worked full-time (92%) during the COVID-19 surge of interest. There was a broad range of palliative specialist experience levels among participants, from novice (0–2 years) to seasoned (>15 years). Three participants endorsed telehealth experience prior to COVID-19. Most were “not at all comfortable” ($n = 2$) or “somewhat comfortable” ($n = 5$) with delivering telehealth at the start of COVID-19, three were “comfortable”, and one was “extremely comfortable”. Table 2 provides a summary of sociodemographic characteristics and work experience variables. Notably, most interviewees described being limited to telephonic (as opposed to videoconference) consultations and communications with patients and families during the study period.

Qualitative analysis identified three major themes, including: (1) telehealth barriers to care delivery; (2) the impact of telehealth on the quality of relationships with patients, their families, and coworkers; and (3) the changes in perceived self-efficacy related to fulfilling job responsibilities.

Telehealth barriers to care delivery

Participants shared several barriers in meeting psychosocial and physical needs of patients and families using telehealth during this time period. For participants providing telephonic consultations, the absence of visual information by video and their discomfort with virtual platforms (e.g., FaceTime, Zoom) compromised palliative specialists’ confidence in interpersonal assessment skills. As one participant stated:

I think that the lack of physical presence [was a barrier]. I think that... your psychosocial diagnostic skills suffer when you have no visual. Even just understanding inflection in [a person’s] voice can [give you] a lot less information... when it’s over some phone line that might be choppy and isn’t giving you the nonverbals, so I think your diagnostic ability to say, “Is this person feeling anxious? Is this person feeling abandoned? Is this person feeling terrified of not getting chemo?” Those things can be a lot

harder to parse out when you’re doing the telehealth thing. (Participant 6)

The loss of physical presence limited the ability of some participants to introduce more serious conversations and keep the patient engaged. In particular, the complex discussions specific to specialist palliative care raised particular barriers to engaged communication. Another participant noted:

If I brought [death/dying] up [to the patient], I found that people would shut down more quickly and want to hang up. I think that’s the other difference with the telehealth. Patients have an out. (Participant 5)

Participants felt that telehealth also negatively affected the physical exam and the scientific approach to pain management interventions. Challenges discussed were titrating high doses of pain and symptom management medications (e.g., opioids, benzodiazepines) in the absence a physical exam. In addition, being unable to evaluate functional status by observing patients’ activities of daily living restricted medical assessment to subjective patient report and a review of systems. As one participant described:

Our physical exam is very, very important... [and] this is not like psychosocial support, it’s a medical intervention, which requires a hands-on exam. [We can’t really titrate pain medications without physically assessing the patient.] And it’s not because we didn’t try, but because the system is not set up [to work in the inpatient telehealth context]. (Participant 7)

Impact of telehealth on the quality of relationships

The positive and negative impacts of telehealth services on palliative specialists’ quality of relationships with patients, their families, and coworkers were evident throughout many of the interviews. Many critical elements to psychosocial care were affected including empathic communication, building trust, and using therapeutic presence, and new skills were developed to foster interpersonal connection.

Relationships with patients

Palliative specialists’ process of building trust with patients changed in the context of telepalliative care delivery. Participants shared that the ability to establish rapport with patients is a core skill of palliative specialists. Yet, they acknowledged that the loss of verbal and nonverbal cues, which have increased clarity in person, complicated the rapport building process. Different from in-person relationships, the process took increased time and effort and led to self-doubt that patients’ needs were met:

The patient couldn’t trust me over the phone, so [they] couldn’t really hear me at all. And I think it took one or two phone calls to build the trust between [us] and for me, I can usually gain that within the first minute of meeting people. (Participant 8)

Participants emphasized the how nonverbal exchanges in everyday clinical practice are essential to foster trust and promote emotional investment on all sides of the relationship.

Table 2 | Participant sociodemographic characteristics and work experience ($n = 11$)

Variable	Range	N (%) ^a	Mean (SD)
Age	34–60		47.1 (8.2)
Gender	Male	1 (9.1)	
	Female	10 (91.9)	
Marital status	Married	8 (72.7)	
	Cohabitant	2 (18.2)	
	Divorced	1 (9.1)	
Highest education	Bachelors	1 (9.1)	
	Masters	4 (36.4)	
	Doctorate ^b	6 (54.5)	
Household income (annual)	\$60,000–80,000	1 (9.1)	
	\$80,000–100,000	2 (18.2)	
	>\$100,000	8 (72.7)	
Profession	Chaplain	1 (9.1)	
	Nurse practitioner	4 (36.4)	
	Pharmacist	1 (9.1)	
	Physician	3 (27.3)	
	Physician assistant	1 (9.1)	
	Social worker	1 (9.1)	
Years worked as a palliative specialist prior to COVID-19 surge	0–2 years	2 (18.2)	
	2–5 years	3 (27.3)	
	5–10 years	4 (36.4)	
	10–15 years	1 (9.1)	
	>15 years	1 (9.1)	
Palliative specialist certification ^c	Yes	6 (54.5)	
	No	4 (36.4)	
Work status during COVID-19 surge	Full-time	10 (91.9)	
	Part-time	1 (9.1)	
Previous telehealth experience prior to COVID-19 surge	Yes	3 (27.3)	
	No	8 (72.7)	
Comfort with delivering telehealth at start of COVID-19 surge	Not at all comfortable	2 (18.2)	
	Somewhat comfortable	5 (45.5)	
	Comfortable	3 (27.3)	
	Very comfortable	0 (0)	
	Extremely comfortable	1 (9.1)	

^aNo missing values unless otherwise noted.

^bDoctorate degrees include MD, PharmD, DMin, and PhD.

^cOne missing value. Certification not available in given profession.

The inability to provide nonverbal support through physical presence was palpable on behalf of many participants. One participant said,

I'm sure you've had lots of powerful first interactions where you've met somebody for an hour but by the end of it you can tell that you've earned a lot of their trust... so I think that I felt much less buy-in from patients. Much less trust or emotional investment in the conversations [...] You can't know someone just by words; you have to know what they look like, how they respond to you, how they look when they're listening to you. All that stuff is really, really important and I think patients just didn't feel that. (Participant 6)

Conversely, some participants felt relationships with patients flourished in the telehealth space. Participants described the intimacy of communication that occurred for patients in their having the ability to speak with someone who cared over the

telephone. One participant even described phone consultations as an “equalizing” experience, compared to in-person interactions:

Talking on the landline at the bedside phone to the patient, I had some of the most wonderful and in-depth conversations with patients who would not normally be that open when you're in person.[...] And some people get nervous when you're standing... or sitting over them... [for the patient to see] an able-bodied, well-dressed person walk in... and then they can walk out. And there's something very spiritual about [sharing personal details by phone]. ... and something equalizing [over the phone]. And so, I didn't know before this period of time how powerful just connecting by voice can be. And it was moving (Participant 9)

The increased connectivity and ability to reach patients appeared to provide opportunities that might otherwise

have been unavailable through in-person consultation. For instance, some specialists reported sharing their personal phone numbers or email addresses to make themselves more readily available during working hours. One individual who was providing virtual hospice support groups in her local community, as well as telepalliative care for oncology inpatients during the COVID-19 surge, said:

We got to see the whole process... because they could just be in bed and talk about how they're feeling. And sometimes they'd even just fall asleep while the camera was on, but it was a way in which I realized, 'Oh, we could have so much more connection in this way because it doesn't matter where we are.' So yes, [physical presence] was missing... but [I also realized], 'Oh, you know this is allowing me to be present at times when I wouldn't have been.' You could reach anybody, anytime and everybody was always [available]. (Participant 12)

Relationships with families

Some participants felt that telehealth strained their relationships with patients' families. While participants felt empathy for families they could not support in person, they often felt ineffective communicating with them remotely, particularly during high-stakes conversations. Communicating complex clinical updates and rapid changes in clinical status that required difficult decision-making by families became increasingly complicated to facilitate. As one participant described:

I remember being involved in my week on service in one of these family meetings and this was with a family that was really frustrated [and] didn't trust the medical system at this point. I can't even see them. We're all calling in by phone and I just remember feeling so bad during that meeting. Just feeling like I wasn't able to be there for the family, to personally show up. (Participant 3)

However, participants also found reward in the spontaneity of relationships that seemed to emerge with family members through the use of telepalliative care. The ability to connect virtually allowed a different quality and depth of connection. One participant shared:

I got to talk with a lot of family members one-on-one. And the relationships that grew from that utterly surprised me. My days filled up in a whole different way - this has never happened in my career. (Participant 9)

Participants also noted how telehealth invited an opportunity to support families in flexible ways that in-person consultation would have made challenging. The ability to foster specialist–family relationships was particularly important in the COVID-19 context when cumulative loss and grief were common experiences for family members:

I remember... speaking with the brother of a [COVID-19] patient who was in the ICU... and couldn't talk on the phone. [...] And he said, 'I don't think I could take it if my brother dies too, I just can't.' And allowing him to just hold that grief and those fears. So those conversations were able to happen. I couldn't have had it with him [with-

out telehealth] because he had COVID, he couldn't come to the hospital. So in some ways I could talk to him and reach him in a way that in-person [care] would not allow. (Participant 12)

The ability to connect with patients' families in new ways also provided additional context into patient needs and experiences. Some families prioritized clinical updates while being unable to visit their loved ones in the hospital, others were more focused on their own psychosocial needs, and still others just required a safe space to process the events surrounding the pandemic. Every family dynamic was different—similar to the in-person context. As one participant noted:

I think the telephone conversations that I had with family members [provided] more insight into the patient because often when families are at the bedside -- maybe there's some reserve in sharing because you don't know what the patient would want to be relayed about them or just maybe [there are] dynamics of in-person [that are] different. (Participant 5)

Relationships with coworkers

Participants described the myriad ways telehealth impacted their relationships with primary oncology teams and nurses on the frontline, as well as among colleagues on the palliative care team. The team not being physically present increased the demand on clinicians who were in the hospital (e.g., nurses) to implement tasks on behalf of the palliative care specialists. This caused participants to worry that they were becoming a “burden” or “annoyance” to the on-the-ground, frontline staff:

It felt like a burden to interrupt the nurses' flow. And then... connecting with the teams it almost felt like, umm, an annoyance? Because the teams were managing the goals of care conversations or were managing with people in patient to provide care and we were just this periphery. (Participant 5)

Another participant described the strain on relationships with inpatient teams and colleagues:

And I think, [it] started to breed some resentment and anger towards us for not being there. And I remember ... one of the first days I came back, one of the [clinical nurse specialists] said, 'We're really angry at you, at you and your team for not being here. We had no choice - we had to be here. And then you asked us to do our job and your job too.' Really angry. And I was like, 'I can only imagine, it was not fair. And not my choice. And it was not fair. And I'm sorry.' (Participant 8)

In addition, some described that within the palliative care team, telehealth led to a greater amount of interpersonal support and communication:

I enjoyed... how our team was communicating more. The [staff] that were working that day, we would have regular meetings, we were talking to each other more. So, I think if there was a positive, even in the initial transition,

the positive was that our team was talking more, we were touching base more, we were leaning on each other more. (Participant 2)

Changes in perceived self-efficacy

Rather than participants' ability to use the telepalliative care platform (e.g., theme 1: telehealth barriers) or their experiences fostering relationship (e.g., theme 2: impact on quality of relationships), perceived self-efficacy was indicative of specialists' perceived ability to perform their professional role and uphold their clinical obligations. Many interview participants described how the rapid transition to telepalliative care promoted feelings of abandonment for various stakeholders. Practicing remotely, specialists feared that they had "abandoned" their colleagues and their patients, which negatively impacted their sense of self-efficacy:

Patients felt abandoned, teams felt abandoned, that we were not on site [...] It didn't feel very effective. I didn't feel very effective. I assume that some of some of our conversations were effective, some of my conversations were effective. [If] I were to rate it on a ... zero to five scale, I would say I would be one, in terms of overall effectiveness, zero being not effective at all [and] five being the most effective. I would say one. (Participant 8)

This cumulative abandonment led to low perceived self-efficacy even when considering the intermittent successes of helpful conversations with patients. The telehealth milieu and inability to provide in-person consultation limited palliative specialists' abilities to feel effective in fulfilling their roles. Fostering relationships as a core component of job performance became difficult. As one participant shared:

I'm very good at gaining the trust of people quickly, because I listen well and I'm good at picking up on their needs, and reading those and I didn't, I wasn't able to gain [that trust] and [grow] those relationships as quickly as I could [in normal circumstances]—[...] And all of a sudden, you know, the primary teams were the ones that were able to do that. (Participant 8)

Whole-person care, including attending to the spiritual and existential needs of patients, was challenging in the absence of physical contact with patients. Telephonic communication in particular limited palliative specialists' abilities to provide comfort or feel competent in the delivery of palliative care. Several participants noted that the lack of face-to-face communication, the inability to evaluate and respond to nonverbal cues, and the missed opportunities to provide physical support and touch negatively affected the integrity of their practice. It was clear that the shifts in participants' roles had impacted their perceived self-efficacy. This interviewee shared:

So the short answer to your question is, was I comfortable providing spiritual and existential support to patients virtually and remotely? No. I tried to get more comfortable with it as we were further along in the weeks of being remote, but there was a sense that it wasn't as complete or thorough as being in person. The touching of the hand, the listening while they're crying, or just the silence of

acknowledging, 'Where is god? Why is this happening to me?' is not as easy to do on the phone, to be honest. (Participant 2)

While some participants emphasized the benefits of telehealth in communicating with patients' families, it was clear that this experience was not universal. One participant talked about the ways that remote work limited the palliative care team to an "incomplete picture" of the patient, and how this hindered their ability to communicate effectively with patients and their families. Phone and electronic communication appeared to fail some providers, as this participant notes:

I read charts to see how loved ones were doing. I haven't laid eyes on them. [...] I could not explain how a patient was doing to a family member. I don't know. I can read the chart, but you know how those charts are, they're removed from reality. [...] I can't have an hour of conversation with a patient by phone. So, that was hard. I could have an hour conversation with family members, but what was hard about that was, I can't really tell you how your loved one is doing. (Participant 12)

And yet, becoming more adept at navigating documentation was an example of improved self-efficacy for some participants. The telehealth experience did not just improve the interpersonal skillset, but also this participant's overall organization and patient care approach. They described how learning to become a better system navigator had improved time management, contact with primary teams, and a critical review of documentation. The participant continued:

I had to get more organized. I had to get more reliant on documentation because I was relying on other people's documentation to understand what was happening with patients. I just got better at chart reviewing, for example. I got better at reaching out via [electronic messaging]. I don't waste a lot of time trying to find teams anymore when I'm back on-site. I'm like, 'I'll just [message] them.' [...] So, I think I came back a stronger provider. (Participant 4)

Some participants also described how the challenges faced and skills learned during the telehealth experience improved their subsequent experiences of in-person consultation. In other words, the telehealth experience tested their strengths and, ultimately, sharpened their clinical capacities. This participant noted how their communication and verbal skills improved immensely throughout an extremely difficult telehealth service delivery process:

When I came back on site, my job was a 1000% easier than it had been prior to COVID, because it felt like I had gained all these skills doing telemedicine. It was SO hard [providing care virtually and by phone]. It felt like I was doing palliative care with my hands tied around my back. Without the physical cues, without being able to reach out and touch somebody, or over the phone they couldn't see my smile... I had to do everything through my words and really get better verbally helping people. (Participant 4)

Discussion

The COVID-19 pandemic drastically altered many aspects of healthcare delivery, including palliative care. Remote palliative care delivery, engineered in the early days of the pandemic as a means of protecting patients and healthcare providers from potentially hazardous exposures, is fraught with numerous preconceived barriers, among them concerns regarding confidentiality, rapport-building, deficits in physical examination and/or symptom evaluation, and limitations in ability to evaluate, engage with, and read emotions [18]. This study builds upon other early-pandemic evaluations of telepalliative care delivery to suggest that although these concerns are grounded in reality, telepalliative care presented opportunities as well as barriers for specialists delivering inpatient care [8, 13].

This study is the first of its kind to characterize the palliative specialist experience of delivering remote inpatient palliative care alongside that of interdisciplinary team members, such as chaplains, pharmacists, and social workers. Our findings suggest that palliative specialists across all disciplines felt deeply challenged by the sudden shift in care delivery mechanisms in ways that have not been previously described. Respondents reported feeling discombobulated, disorganized, and ineffective; although they were able to adapt some of their practices to meet new, poorly categorized needs, they identified critical gaps in patient–specialist interactions. Our respondents highlighted positives with regards to family interactions and relationship-building, but described deep distress about their lack of presence at the bedside, and its significance not only in terms of symptom management but also in the provision, or lack thereof, of spiritual and psychosocial care. This loss of self-efficacy suggests that further examination and cautious, evidence-educated adaptation of telepalliative care delivery mechanisms will be needed to create a system with long-term sustainability for both patients and palliative specialists.

While our respondents highlighted the technical, psychological, and emotional challenges of telepalliative care, they also emphasized some important strengths, particularly a broadened arena for connection. Although face-to-face connectivity suffered, palliative specialists often built direct, supportive relationships with family members. In some cases, the shift in patient–specialist power dynamics occasioned by telephonic communication allowed for greater patient-directed care delivery. These findings suggest that, as our comfort with telemedicine continues to grow, telepalliative care may have a real role to play in inpatient palliative care in the future, particularly in settings where family support and/or patient self-efficacy is of utmost importance. They also suggest that, as telepalliative care continues to develop, increasing attention should be directed to enhancing specialist comfort with remote palliative care delivery.

Prior to the COVID-19 pandemic, interviews with palliative specialists regarding palliative care delivery highlighted the challenges telepalliative care presented as compared to standard consultative palliative care [18, 19]. Telemedicine in palliative care was perceived as a useful adjunct; however, rigorous demonstration of efficacy, or even development of standards for program evaluation, was lacking [5]. Evolving restrictions around face-to-face encounters between interdisciplinary team members and patients resultant of the COVID-19 pandemic forced the rapid, simultaneous development of remote palliative care delivery mechanisms across the country. Preliminary evaluation of such programs suggests that patient satisfaction related to palliative care delivery through

these mechanisms has been high in outpatient and nursing home settings [9–11, 20].

Telepalliative care has also been well received in the few evaluations of inpatient studies performed to date [13], despite reservations expressed by clinicians [21], particularly regarding the negative impact of remote interactions upon relationship-building. Our findings reinforce some of these misgivings while diminishing others: multiple respondents in our study cited the paradoxical dilemma of having more time for their patients while also having less access to them. Telepalliative care provided a means to build relationships with and support families but left other hospital staff feeling abandoned by the palliative care team as they shifted to remote practice.

While some interview participants emphasized the barriers to care inherent to diminished face-to-face encounters, others adapted how they leveraged and used their “presence” with patients via telehealth. A recent dimensional analysis identified seven key dimensions of “telepresence:” connection, technological mediation, experienced realism, trust, being supportive, collaboration, and emotional consequence [22]. These authors also identified technology as, essentially, a third party in the remote care equation—an additional relationship to be managed by the palliative specialist. Our study, alongside others citing high levels of patient satisfaction, suggests that certain components of this concept of telepresence come easily to palliative specialists [11–13, 21]—such as connection, trust, being supportive, and collaboration—but that this secondary human-technological interface can be a barrier as much as it is a boon [7, 22]. Concerns cited in earlier studies, such as potential overemphasis upon and/or neglect of symptoms [2, 18], privacy concerns [23, 24], injury to the patient–clinician relationship [25], and even lack of substantive benefit [26], suggest that these patient experiences were not born out of the COVID-19 pandemic. However, our study indicates that the palliative specialist experience might be more complex and that the perceptions and practices of telepresence may be highly individualized both for patients and for the staff providing care.

As the pandemic has evolved, multiple accounts of institutional experience and resulting recommendations have emerged [7, 8, 13, 27, 28, 29]. Most of these studies highlight feasibility or examine the patient experience—few attempt to define or characterize what should constitute a standard of care for telepalliative care. Our findings suggest that, while patient satisfaction may be a marker of quality and value, other, specialist-side factors that impact the sense of telepresence and/or connectedness should also be considered. In an ideal scenario, perhaps, telemedicine would be offered as an option for desiring patients, families, and palliative specialists—with in-person care as an alternative for those recipients of care who are less open to telepalliative services.

As telepalliative care is improved and expanded across systems, our results can be employed, in part, to support interdisciplinary training focused on establishing rapport, building trust, and identifying and responding to palliative needs whether using video-supported or audio-only telehealth services. Specifically, attention should be given to assist inpatient palliative specialists in developing relationship-building strategies using telehealth platforms that emphasize telepresence (e.g., connection, collaboration) with patients, family caregivers, and primary team partners. In addition, clinician preparation should emphasize how to deliver serious news

and facilitate difficult conversations (e.g., dying, loss, goals of care clarification) in the telepalliative care milieu empathically and effectively. Self-perceived inadequacies and insecurities of palliative specialists using telehealth platforms should be normalized and validated as they adapt to new ways of communicating and managing complex physical, psychosocial, and spiritual patient/family needs. Health systems, and in particular palliative care services within cancer centers, should focus on developing inpatient telepalliative care structures and protocols in times of normalcy to implement, test, and strengthen pathways for effective telehealth service delivery in anticipation of future health crises. Institutional policies must reflect telehealth capacity building for relevant staff as a priority to promote safe and reliable care services when in-person services are restricted.

Limitations

To our knowledge, this is the first study to explore interdisciplinary palliative care team specialists' experiences delivering physical, psychosocial, and spiritual support for oncology inpatients. This study was limited to the perceptions and experiences of a single palliative care team within an urban comprehensive cancer center, which may limit transferability of findings. However, we provide insights of multiple disciplines and across experience levels to provide an in-depth description of inpatient telepalliative care delivery in the context of a public health emergency. The consistency of data that emerged throughout the coding process from multiple disciplinary perspectives, as well as both early career and senior specialists, reaffirmed our confidence in the findings, as the themes related to telehealth barriers and positives, quality of relationships, and self-efficacy were reiterated during many of the interviews. While the sample was limited in size, data saturation was achieved through iterative thematic text analysis across an interdisciplinary coding team to ensure methodological rigor. It is also imperative to note that early in the COVID-19 pandemic, telehealth capabilities were limited, relegating many team members to telephonic (i.e., audio only) service delivery. However, as systems strengthened telehealth platforms over time, an increasing number of palliative specialists had access to video functionality, which may have addressed some of the barriers identified by participants in this study. These longitudinal improvements in telepalliative care delivery were beyond the scope of our study aims but should be explored in future research.

Conclusion

As the COVID-19 pandemic continues to evolve, telehealth services will continue to be utilized to bridge care delivery gaps and meet the psychosocial and palliative care needs of patients and their families in all settings. It is imperative to explore the experiences of providers in delivering telepalliative care to adequately understand communication barriers, facilitators, and needs that affect their perceived self-efficacy, as well as the quality of care being delivered. Interdisciplinary perspectives, such as those we elicited in this study, are necessary to inform evidence-based interventions to strengthen telepalliative care services capable of meeting the holistic needs of those with cancer and other forms of health-related

suffering, particularly in the context of a public health crisis such as COVID-19.

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Compliance with Ethical Standards

Conflict of Interest: W.E.R., K.A.L., R.A.H., C.M., and P.A.P. declare that they have no conflicts of interest.

Ethical Approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent: Informed consent was obtained from all individual participants included in the study.

Welfare of Animals: This article does not contain any studies with animals performed by any of the authors.

Transparency Statements: (1) This study was not formally registered. (2) The analysis plan was not formally preregistered. (3) De-identified data from this study are not available in a public archive. De-identified data from this study will be made available (as allowable according to institutional IRB standards) by emailing the corresponding author. (4) There is not analytic code associated with this study. (5) Materials used to conduct the study are not publicly available.

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