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How do non-physician clinicians respond to advanced cancer patients' negative expressions of emotions?

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Abstract

Purpose—Patients with advanced cancer often experience negative emotion; clinicians' empathic responses can alleviate patient distress. Much is known about how physicians respond to patient emotion; less is known about non-physician clinicians. Given that oncology care is increasingly provided by an interdisciplinary team, it is important to know more about how patients with advanced cancer express emotions to non-physician clinicians (NPCs) and how NPCs respond to those empathic opportunities.

Method—We audio recorded conversations between non-physician clinicians and patients with advanced cancer. We analyzed 45 conversations between patients and oncology physician assistants, nurse practitioners, and nurse clinicians in which patients or their loved ones expressed at least one negative emotion to the NPC (i.e., an empathic opportunity). Empathic opportunities were coded three ways: type of emotion (anger, sadness, or fear), severity of emotion (least, moderate, or most severe), and NPC response to emotion (not empathic, on-topic medical response, and empathic response).

Results—We identified 103 empathic opportunities presented to 25 different NPCs during 45 visits. Approximately half of the empathic opportunities contained anger (53%), followed by sadness (25%) and fear (21%). The majority of emotions expressed were moderately severe (73%), followed by most severe (16%), and least severe (12%). The severity of emotions presented was not found to be statistically different between types of NPCs. NPCs responded to empathic opportunities with empathic statements 30% of the time. Additionally, 40% of the time,

NPCs responded to empathic opportunities with on-topic, medical explanations and 30% of the responses were not empathic.

Conclusion—Patients expressed emotional concerns to NPCs typically in the form of anger; most emotions were moderately severe, with no statistical differences among types of NPC. On average, NPCs responded to patient emotion with empathic language only 30% of the time. A better understanding of NPC–patient interactions can contribute to improved communication training for NPCs and, ultimately, to higher quality patient care in cancer.

Keywords

Communication; Emotions; Empathy; Nurse practitioners; Medical oncology; Physician assistants; Professional–patient relations

Introduction

Non-physician clinicians (NPCs), including nurse practitioners, nurse clinicians, and physician assistants, now provide more cancer patient care [1, 2]. Patients with advanced cancer often express negative emotion [3–5]. When providers respond empathically to this negative emotion, patients often report lower distress and higher quality of life [6]. Unfortunately, providers respond empathically less often than desired [7, 8]. One study found that oncologists responded empathically to patient expressions of negative emotion only 22% of time [9].

Some oncologists might depend on other members of the interdisciplinary team to address patient emotional concerns. Patients also may perceive oncologist discomfort with this topic and be more willing to discuss emotional concerns with NPCs.

If this is true, then the oncology team members bearing the brunt of the majority of difficult conversations are at risk for burnout and personal exhaustion, as a byproduct of the repeated emotional stress encountered in recurrent difficult, emotion-laden conversations [10]. Since patient distress can be relieved by empathic communication [11, 12], and since better skills in dealing with patient's emotional distress lowers the risk of clinician burnout from these difficult conversations [13, 14], it follows that all clinicians dealing with advanced cancer patients should be confidently competent in empathic communication—this includes non-physician members of the oncology care team.

It is unknown whether NPCs respond empathically, however. Given the importance of addressing patients' emotional needs and the expanding role of the non-physician workforce in oncology, the aim of this study is to explore how patients with advanced cancer express emotions to NPCs and how NPCs respond to those emotions.

Methods

This study analyzed data from the Study of Communication in Oncologist–Patient Encounters (SCOPE), a three-site project analyzing audio-recorded conversations between advanced cancer patients and their oncologists from Duke University Medical Center (DUMC), the Durham Veterans Affairs Medical Center (DVAMC), and the University of Pittsburgh Medical Center (UPMC). This analysis is based on a sub-sample of audio-recorded conversations where patients expressed one or more negative emotions to a NPC. Detailed methods of SCOPE are reported elsewhere [15]. SCOPE was approved by each study site's institutional review board.

Participants

NPCs—NPCs were defined as nurse clinicians, nurse practitioners, and physician assistants working with enrolled cancer patients in the medical, radiation, cell therapy, and gynecological oncology clinics at participating medical centers. These NPCs were invited to participate; each participant gave written informed consent.

Patients—Eligible patients: (1) had advanced malignancy; (2) spoke English; (3) were receiving primary oncology care at DUMC, DVAMC, or UPMC; and (4) had access to a telephone. Our goal was to identify patients with sufficiently advanced disease to increase the probability that conversations would contain emotional concerns. Thus, we asked oncologists and NPCs who worked with potentially eligible patients if they “would not be surprised if the patient was admitted to the ICU or died within 1 year.” We assured providers that this information would not be conveyed to patients. Patients, and loved ones who accompanied them into the exam rooms, provided written, informed consent.

Audio recordings—Audio recordings were analyzed if they included conversations between patients and NPCs and patients expressed at least one negative emotion ($N=45$ patients from conversations with $N=25$ NPCs). We transcribed verbatim all instances of negative emotion and the discussion that followed. Transcripts were de-identified.

Data coding

Audio recordings were analyzed by two trained coders (SCA and JREM). Twenty percent of the interactions were double-coded to assess inter-rater reliability. Disagreements were discussed and final decisions made by consensus. Cohen’s Kappa was used to calculate inter-rater reliability for each code using Landis and Koch’s classification [16]. All kappa scores fell into the “near-perfect agreement” or “substantial agreement” categories (type of emotion=0.67, 95% CI: 0.44, 0.89; severity of emotion=0.73, 95% CI: 0.65, 0.91; NPCs’ responses rating=0.82, 95% CI: 0.69, 0.95).

Measures—Negative emotions were defined as instances in which patients revealed distress about the cancer or related topics (e.g., “I am so frustrated with all these treatments!”). All instances of negative emotion were coded as empathic opportunities for the NPC. Both verbal expressions (e.g., “I’ve been stressed!”) and non-verbal expressions (e.g., patient crying in response to bad news) were coded and analyzed.

Negative emotions were coded three ways: type of emotion, severity of emotion, and NPC’s response to emotion. Type of emotion was coded as anger, sadness, or fear. Anger also included expressions of frustration (“It is so frustrating. I just resent having to do this.”) Sadness included expressions such as disappointment, hopelessness, discouragement, and depression (“(crying) I’m so depressed; I just hate my life right now.”) Fear included anxiety and worry (“I am so worried about not being around, it drives me nuts. The biggest thing is my anxiety about this.”).

Severity, also known as the level of intensity that the emotion expressed, was coded as either: “least severe,” “moderately severe,” or “most severe” based on preset rules analyzing tone of voice, topic of disclosure, and word choices [17]. NPC responses to emotions were coded as either: “non-empathic,” “on-topic medical response,” or “empathic response.” Non-empathic statements were when the NPC negated or ignored the patient’s emotion (e.g. “Oh don’t worry, this isn’t going to be that bad.”). On-topic medical responses were those in which the NPC responded to the medical concern but did not address the expressed emotion (e.g., PT: “This chemo makes me so tired that I can’t garden anymore, and I really miss that.” NPC: “After we adjust the dosage, you may not be so tired.”). Empathic responses

were those when the NPC acknowledged the emotion expressed (e.g., “You’ve been through a lot. I know it’s not what you needed today. I want you to take some time. Make a plan. We are going to be there every step of the way to keep you going.”).

Results

Demographics

Twenty six physician assistants, 13 credentialed nurse practitioners, and six nurse clinicians participated in the study. Most NPCs were white (96% physician assistants, 100% nurse practitioners, and 100% nurse clinicians) and female (81% physician assistants, 100% nurse practitioners, 100% nurse clinicians). Mean age for physician assistants was 40 years (SD=10); nurses had a mean age of 42 years (SD=10 for nurse practitioners; SD=8 for nurse clinicians). All three groups, on average, had more than 30 h of direct contact with patients per week (physician assistants=34 h (SD=16); nurse practitioners=33 h (SD=8); nurse clinicians= 28 h (SD=9). NPCs had many years of oncology experience (physician assistants=10 years, SD=8; nurse practitioners=14 years, SD=8; nurse clinicians=28 years, SD=9), and approximately half had previous communication training (50% physician assistants, 46% nurse practitioners, and 50% nurse clinicians).

Patients’ mean age was 60 years (SD=13); 49% were men. Approximately 83% were white, 15% African American, and 1.4% Hispanic, 67% had an equal or greater than high school education level, and 57% reported a high level of economic security (i.e., how much money is available after paying bills). Seventy nine percent of patients had been seen for at least three previous visits.

Empathic opportunities

We identified 103 empathic opportunities presented to 25 different NPCs during 45 patient visits. On average, each NPC was presented with four empathic opportunities per visit (S.D.=3; range 1–11). Approximately half of the expressed empathic opportunities were anger (53%), followed by sadness (25%) and fear (21%; see Table 1). There were no statistically significant differences among type of emotion presented to PAs, nurse clinicians, and nurse practitioners ($p=0.26$; see Table 1). Most emotions were moderately severe (73%), followed by most severe (15%), and mildly severe (12%). There were no statistically significant differences between severity of patient emotions based on whether or not the NPC was a physician assistant, nurse practitioners, or nurse clinicians ($p=0.09$, Table 1).

NPCs responded to empathic opportunities with empathic statements 30% of the time. Additionally, 40% of the empathic opportunities were responded to by the NPCs on-topic with a medical explanation and 30% of the responses were not empathic.

There was no statistically significant difference between responses between physician assistants, nurse practitioners, or nurse clinicians ($p=0.16$).

Discussion

We report three main findings. First, in a total of 115 conversations with non-physician clinicians, patients expressed emotional concerns at a slightly lower rate than they present to their oncologists [17]. Second, these emotions are typically expressed in the form of anger and are moderately severe. Finally, on average, NPCs responded to patient emotion with empathic language only 30% of the time.

Across all visits (averaging two visits analyzed per NPC), NPCs encountered a mean of four empathic opportunities. This frequency is similar to what we found for the number of empathic opportunities presented to oncologists during baseline recordings in the SCOPE trial (mean=5.7 empathic opportunities; S.D. 4.5) [9]. Additionally, this is similar to the frequencies found in other studies in primary care and surgery [18, 19].

Although these findings are similar to those found for oncologists, the types of emotions expressed to NPCs seem to be different than those presented to oncologists (see Table 2) [17]. In this study, we found that patients were more likely to express anger (53%) compared to sadness (25%) and fear (21%); whereas, in a previous analysis of oncologist responses to emotions, patients were more likely to express fear (67%) than sadness (17%) then anger (16%) [17]. Yet, when it came to severity of emotion, it seems that patients are presenting similar levels to oncologists and NPCs (see Table 2). One possible explanation for patients' less frequent expression of anger to physicians is that they might feel inhibited and fear it will affect their treatment. Regardless of the reason, communication training for NPCs should include an emphasis on appropriate responses to patient anger. Without adequate tools to deal with anger, clinicians are at higher risk of burnout. Similarly, communication training for physicians should include more focus on helping patients express anger, thereby sharing the exposure to anger across the oncology care team and reducing the risk that this repetitive negative experience disproportionately falls to NPCs.

NPCs responded empathically approximately 30% of the time to empathic opportunities. This finding is consistent with other published findings related to oncologists' and other physicians' responses to emotions, with physicians' empathic responses ranging from 21% to 35% [9, 19, 20]. We did find that NPCs responded 40% of the time on-topic with medical explanation of the patient's emotion, although NPCs often did not address the underlying emotion that the patient expressed. By not responding to the emotional content of the message, NPCs risk increasing patient distress [21, 22].

Although this is the first audio-recorded study examining how NPCs respond to patient emotions, there are several limitations. The sample size is small and might not be generalizable. We analyzed 45 oncology visits with 25 NPCs. Additionally, we only audio recorded NPCs whose collaborating or supervising oncologists were enrolled in the study. Thus, we were not able to examine an independent sample of NPCs. Our analysis did not link NPCs with their supervising oncologists, so we could not analyze potential team effects, in which the culture of a NPC-oncologist team was geared more or less toward empathetic responses. Second, we did not examine non-verbal communication, such as facial expressions and body positioning, because our clinics do not easily allow for the placement of unobtrusive video cameras. Nevertheless, our audio recordings captured data that included crying, pauses, and other more quiet moments in the encounters.

As the roles of NPCs continue to expand, the need to help NPCs communicate more effectively is crucial. Previous research on nurses' communication skills suggests that the expression of empathy can be improved through training [23–25]. A better understanding of NPC–patient interactions can contribute to improved communication training for NPCs and, ultimately, to higher quality patient care in cancer. Further, with our increasing reliance on the NPC workforce to respond to the greater volume of patient needs in cancer care, development of programs that protect NPCs from burnout will be needed, and attention to the unique risks that these providers face such as increased patient anger will be crucial.

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Table 1

Frequency of type and severity of patient emotions

		Physician assistants	Nurse practitioners	Nurse clinicians
Type of emotion	Fear	16 (23%)	2 (13%)	4 (22%)
	Anger	33 (48%)	12 (75%)	10 (56%)
	Sadness	20 (29%)	2 (13%)	4 (22%)
Severity of emotion	Least severe	9 (13%)	2 (13%)	1 (6%)
	Moderately severe	45 (65%)	13 (81%)	17 (94%)
	Most severe	15 (22%)	1 (6%)	0 (0%)

Table 2

Differences in type of emotion and level of severity by provider type

	Oncologists (Kennifer et al. [17]) (%)	NPCs (%)
Type of emotion		
Fear	67	21
Sadness	17	25
Anger	16	53
Level of severity		
Least	22	12
Moderate	60	73
Most severe	19	16