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Videos Improve Patient Understanding of Misunderstood Chemotherapy Terminology

Rebecca D. Pentz, PhD^{1,2}, Minisha Lohani³, Melissa Hayban¹, Jeffrey M. Switchenko, PhD⁴, Margie D. Dixon¹, Richard J. DeFeo Jr⁵, Gregg M. Orloff, PhD¹, Ashesh B. Jani, MD^{1,2}, Viraj A. Master, MD, PhD^{1,2}

¹Department of Hematology and Oncology, Emory University School of Medicine, Atlanta, Georgia;

²Winship Cancer Institute, Atlanta, Georgia;

³Medical School, Philadelphia College of Osteopathic Medicine-Georgia, Suwanee, Georgia;

⁴Department of Biostatistics and Bioinformatics, Emory University Rollins School of Public Health, Atlanta, Georgia;

⁵Care and Counseling Center of Georgia, Inc, Decatur, Georgia

Abstract

BACKGROUND: Chemotherapy is the backbone of many cancer therapies; however, the terminology used to describe chemotherapy may be difficult for patients to understand, particularly in underserved populations. Studies have shown that educational videos can improve patient understanding of cancer-related terms. The goal of this study was to identify chemotherapy terms that were difficult for an underserved population to understand and then develop and test educational videos describing these terms.

METHODS: A word bank of 50 difficult-to-understand chemotherapy terms was developed by querying 15 providers and 50 patients at an underserved hospital. Twenty of these terms were then tested with 50 additional patients to determine rates of misunderstanding. Six pilot educational videos describing 6 important terms were created using VideoScribe and then assessed with 50 patients to see if they improved understanding.

RESULTS: Fifteen of the 20 terms tested to establish rates of misunderstanding were misunderstood by more than one third of patients, with 98% unable to define *maintenance*, 74%

Corresponding author: Rebecca D. Pentz, PhD, Winship Cancer Institute, 1760 Haygood Drive, E340, Atlanta, GA 30322; rpentz@emory.edu.

AUTHOR CONTRIBUTIONS

Rebecca D. Pentz: Conceptualization, methodology, supervision, writing (original draft), writing (review and editing). **Minisha Lohani:** Methodology, writing (review and editing). **Melissa Hayban:** Methodology, writing (review and editing). **Jeffrey M. Switchenko:** Methodology, writing (review and editing). **Margie D. Dixon:** Conceptualization, methodology, writing (review and editing). **Richard J. DeFeo, Jr:** Conceptualization, Methodology, writing (review and editing). **Gregg M. Orloff:** Methodology, supervision, writing (review and editing). **Ashesh B. Jani:** Conceptualization, methodology, supervision, writing (review and editing). **Viraj A. Master:** Conceptualization, methodology, supervision, writing (review and editing).

CONFLICT OF INTEREST DISCLOSURES

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unable to define *cancer*, and 58% unable to define *chemotherapy*. Patient understanding of all 6 terms improved by at least 20% after watching the videos. Notable improvement was reported for *palliative chemotherapy*, where before-and-after video understanding increased from 0% to 72%.

CONCLUSION: Chemotherapy, a backbone of cancer treatment, is described with terms that are difficult to understand. Short, animated educational videos can significantly increase patient understanding of chemotherapy terminology.

Keywords

cancer; chemotherapy; educational tool; health literacy; underserved

INTRODUCTION

Terminology used to describe cancer and its treatment is often not understood by lay persons^{1,2} or patients.^{3,4} This lack of understanding of cancer terminology has been shown to negatively impact informed consent,⁵ adherence to chemotherapy recommendations in the advanced cancer setting,⁶ and cancer screening uptake.⁷⁻⁹ Although cancer treatment is being transformed by precision medicine, chemotherapy continues to be the backbone of many cancer therapies.¹⁰⁻¹² We found 1 older study evaluating patient understanding of informed consent for chemotherapy,¹³ but could find no current work assessing cancer patients' understanding of chemotherapy terminology. Because understanding impacts the adequacy of informed consent, adherence to treatment, and outcome,¹⁴ it is important to establish whether or not chemotherapy terms are understood and if not, to develop educational tools to improve understanding.

Research has identified 2 types of misunderstanding. Garcia et al¹⁵ and Dumenci et al¹⁶ identified a type in which a term is completely unfamiliar and unknown. Erlen and Parker et al identified another type in which a term is familiar, but the way in which it is used within the context of chemotherapy is not understood. For example, although the terms *infection* and *maintenance* may be understood in other contexts, their relevance within the context of chemotherapy may be difficult to comprehend. In order to improve understanding, it is important to address both types of misunderstanding so that a patient not only understands the term but also knows what the term means in a specific context.

Work done in prostate cancer provided a road map for the project reported here. First, Kilbridge et al¹⁹ created a list of technical terms used in prostate cancer educational materials and questionnaires. Comprehension of these terms was then tested, establishing that many of the terms were frequently misunderstood.^{19,20} Because previous reports had demonstrated that videos improve patient comprehension,²¹ the investigators developed videos that described prostate health terminology and resulted in improved understanding.²²

Our project intended to replicate this effort with chemotherapy terminology. We first established a word bank of terms that are important to understand but are frequently misunderstood, then developed videos and pilot-tested 6 of them to determine whether they improved patient comprehension. The project was conducted in an underserved hospital, since the need may be greatest in this particular setting.

MATERIALS AND METHODS

This mixed-methods study was conducted in collaboration with an expert panel. The panel consisted of 3 oncologists, 2 health literacy experts, 1 education specialist, 1 lay language specialist who is trained in basic science, and 1 social worker who worked at an underserved hospital. All steps of this project were conducted under an institutional review board–approved protocol, and all participants provided consent to participate.

Development of the word bank was accomplished in 2 steps (Fig. 1): 1) identifying the terms and 2) conducting a test to establish whether the terms were understood. To identify the terms, we interviewed 3 groups of participants: 15 health care providers, 20 patients who had recently consented to chemotherapy, and 30 patients who were already receiving chemotherapy.

We approached any provider who was involved in obtaining consent from patients for chemotherapy at the underserved hospital until we reached a saturation of terms²³ (ie, until no new terms were identified). We asked the providers the following questions: “What are some of the most common words or phrases you use when describing chemotherapy treatment to your patients? Which words do you feel are the most difficult for your patients to understand? What words or phrases do you think are essential for your patients to understand prior to starting chemotherapy treatment?” A research assistant noted all words mentioned.

To recruit patients who had recently consented to chemotherapy, we attended clinics each day and asked providers to identify any patient who had given consent to undergo chemotherapy. We observed the consent conversation and then interviewed the patient. During the conversation, we noted any technical terms about chemotherapy used. After the consent conversation, we asked participants to identify any words they heard during the conversation that were difficult to understand. Next, we read back the list of technical terms used during the conversation and asked participants to identify any terms that they felt they did not know. To correct for any embarrassment in admitting a lack of knowledge of words, we then reread the list and asked participants to state which words they thought other people needed to understand before going through chemotherapy treatment. We included all the terms identified in the word bank.

We recruited patients receiving chemotherapy in the infusion center. We asked them: “Out of all these conversations, and out of all the information you have received and learned, whether it is from the internet, friends or family, or prior knowledge, can you name for me specific words that you personally felt were difficult to understand at first?” We then read the list of the provider-identified terms and asked the patients to state which terms they found confusing. We reread the list and asked which terms were essential for others to understand. Again, all terms identified were included.

Because the initial word bank included 70 terms, with 50 mentioned by more than 1 person, the expert panel determined that in order to avoid participant study fatigue, the number of terms should be reduced to 20 before testing for understanding.

To assist the expert panel in choosing the 20 terms, we provided a pictogram with the 50 terms identified by more than 1 participant (Fig. 2). We also provided the expert panel with a table that showed the frequency of each term chosen in each of the 3 cohorts (Supporting Information). We also reiterated the 2 types of understanding (ie, terms that are completely unfamiliar and terms that are familiar but are not understood in the context of chemotherapy). The expert panel chose 14 terms that were identified frequently by both providers and patients; 5 terms that patients identified but that providers had not thought were difficult to understand (*cancer*, *transfusion*, *transplant*, *side effects*, and *nausea*); and 1 term (*risk of infection*) identified only by providers that they thought was more important than the related word identified by both groups (*fever*).

To accomplish the second step of the word bank development and establish that the 20 words were misunderstood, we interviewed 50 patients at Grady Memorial Hospital in Atlanta, Georgia, who had consented to chemotherapy at any stage in their care. Participants received a \$25 gift card.

Using the Kilbridge et al¹⁹ format to determine patient understanding, a technique used in ethnographic field methods,²⁴ we asked the following questions. First, we asked:

1. “Is this a word you know?”
For the words that were known, we asked a second set of questions:
2. “What are the other words you have heard for ____?”
3. “Can you describe for me in your own words what ____ means?”
4. “Why is this an important word to know for someone who is receiving chemotherapy? How does it apply to someone who is receiving chemotherapy? Please explain.”

Question 4 was used to determine whether the known word might be misunderstood in the context of chemotherapy. Participants also completed a demographics questionnaire, the Rapid Estimate of Adult Literacy (REALM) scale, used by Kilbridge et al,^{19,25} and a simple numeracy scale chosen by the expert panel as appropriate for this population.²⁶

All interviews were audiotaped. All unknown terms were scored as incorrect. For terms participants said they knew, the researcher who conducted the interview coded the answers as correct or incorrect. A second researcher independently—and blinded to the researcher’s initial assessment—listened to the audio recordings and determined whether participants correctly understood the term in the context of cancer. Disputes were resolved by a third researcher. The expert panel provided a standard definition for each term to be used by coders. For example, *cancer* was defined as “a disease caused by abnormal cells dividing rapidly.” We did not expect the participants to use that exact phrasing. For example, the following definitions were considered correct: “cells reproducing and making tumors” (27), “abnormal cells growing” (26), and “tumors that grow inside your body” (15). Examples of incorrect answers included “all I can say is it’s rough” (19), “bad and nobody know where it comes from” (4), “quiet killer” (12), and “something different; I really don’t know” (18). Similarly, *chemotherapy* was defined as “medication given by infusion (needle) or orally by

pills to kill cancer's fast growing cells." The following answers were considered correct: "drugs used to treat cancer" (2), "injection of meds to help you get better and kill cells" (3), "a drug to kill or slow the cancer" (12), and "poison to kill off the cancer cells and can kill some good cells" (26). Incorrect answers included "shots to manage pain" (24), "doctor visits" (22), and "something that doesn't hurt but everything is different afterwards" (13).

To reduce the number of terms for the pilot videos, we attempted to identify an optimal cut point that significantly differentiated terms based on misunderstanding rate using the maximum odds ratio derived from a McNemar's test. Terms were ranked by the proportion of patients' misunderstanding of each term. We tested the difference in proportions between term #1 and #2, #2 and #3, to #19 and #20 using a McNemar's test. Categorical patient variables were analyzed by each term using chi-square tests or Fisher's exact tests, where appropriate, and continuous variables were analyzed by each term using analysis of variance. REALM and numeracy score were analyzed as both categorical and continuous variables. Ninety-five percent exact binomial confidence intervals of misunderstanding rates were reported for all 20 terms using the Clopper-Pearson method.

No optimal cut point was found, so the expert panel reviewed the most misunderstood terms and picked 6 terms that were both frequently misunderstood and deemed essential to understand to use for the video pilot. It was decided that the videos should be short, culturally appropriate, and highly pictorial. VideoScribe (Sparkol) was used to create the videos. The expert panel wrote the script for each video. The videos were cognitively tested with 3 to 5 patients at the underserved hospital to make sure the content was appropriate and helpful, and each video was revised based on comments that were received.

We then tested the 6 videos with 50 patients at the underserved hospital who either recently consented to chemotherapy (n = 6) or were already receiving chemotherapy (n = 44). Before watching the video, we asked participants questions 1 and 3 (ie, if the term was known to the participants, and if known, to describe the meaning of the term in their own words). All unknown words were scored as incorrect. The researcher was instructed to probe the participant if the answer was not related to cancer, asking question 4 if the answer was not clearly linked to cancer. For example, if a patient defined *stage* as "the place where actors stand," they would be asked to state its meaning in relationship to cancer. "The place where actors stand" would be considered incorrect. After participants had watched the video, we asked them to describe the meaning of the term in their own words. The researcher audiotaped the definitions offered by the participants and coded for correct or incorrect, using the video's definition as the standard. A second researcher independently coded the audiotaped answers. Disputes were resolved by a third researcher. Before-video and after-video correct definition rates were calculated, along with 95% exact binomial confidence intervals using the Clopper-Pearson method. Before-and-after paired rates were compared using an exact McNemar's test. Subset analyses were performed for sex, age (< 55 years, >55 years), and education level (high school graduate or less, some college or more). Statistical analysis was performed using SAS 9.4 (SAS Institute Inc, Cary, NC), and significance was assessed at $P = .05$.

RESULTS

The demographics of all patient participants are shown in Table 1.

For step 1 of the word bank development, 15 health care providers (7 fellows, 5 oncologists, 1 nurse practitioner, 1 pharmacist, and 1 social worker) cited 70 terms that were important but difficult to understand. *Palliative* (80%), *curative* (80%), *low blood count* (67%), *chemotherapy* (60%), and *risk of infections* (53%) were the 5 most common. The 20 patients who consented to chemotherapy identified 48 terms. *Chemotherapy* (42%), *stage* (26%), *cycles* (21%), *port* (21%), and *drug names* (16%) were the 5 most commonly mentioned. Thirty patients receiving chemotherapy identified 44 terms, the 5 most common being *chemotherapy* (60%), *edema* (40%), *adjuvant* (37%), *lymph node* (37%), and *metastatic* (33%). A complete list of words is provided in the Supporting Information.

The 20 terms chosen by the expert panel for step 2 of the word bank development (which had been tested to determine whether they were frequently misunderstood) included the 16 terms most frequently identified by consenting patients, 1 chosen by patients receiving chemotherapy (*nausea*), and 3 deemed crucial to understand by providers (*curative*, *palliative*, *risk of infection*). The list of all 20 terms is provided in Table 2.

For step 2, 63 patients were approached. Thirteen were not included (3 were too tired, 1 spoke only Spanish, 5 could not finish, and 4 refused) for a rate of 79%. The rates of misunderstanding are shown in Table 3; *maintenance* and *palliative* were misunderstood by almost all patients, and most patients had a poor understanding of *cancer* (74%) and *chemotherapy* (58%). Seven terms were more frequently understood by participants who owned a computer (*biopsy*, *chemotherapy*, *infusion*, *risk of infection*, *stage*, *transfusion*, and *transplant*), 6 terms by those with higher REALM scores (*biopsy*, *chemotherapy*, *infusion*, *risk of infection*, *stage*, *transfusion*, and *transplant*), 6 terms by those with higher numeracy scores (*fatigue*, *nausea*, *numbness*, *palliative chemotherapy*, *risk of infection*, and *stage*), and 5 terms by younger participants (*biopsy*, *blood count*, *cycle*, *infusion*, *transplant*). To illustrate the misunderstandings, examples of incorrect answers are listed in Table 3.

No statistically significant cut point between misunderstood words was identified. The largest defined odds ratio was 2.0 (90% confidence interval, 0.81–5.4; $P = .24$), which corresponded to a cut point between *toxicity*, which was misunderstood by 43 (86%) patients, and *cancer*, which was misunderstood by 37 (74%) patients. With no optimal cut point identified, the expert panel chose 6 terms to use for the pilot video test: *palliative chemotherapy*, *curative*, *cancer*, *blood count*, *risk of infection*, and *chemotherapy*.

The 1-minute videos for each of the 6 terms can be viewed on the CancerQuest website at <https://www.cancerquest.org/media-center/videos/cancer-treatment-terms>. Before-video and after-video correct definition rates are reported in Table 4. All terms had statistically significantly higher rates of correct definitions for all participants after the participants had watched the videos ($P < .05$). The rate of correct definition for *chemotherapy* was not statistically significant before versus after video watching for men, for participants >55 years of age, or for participants with some college education or more, and the rate of correct definition for *risk of infection* was not statistically significant for participants with some

college education or more. All other terms for each subgroup had significantly higher rates of correct definitions after participants had watched the short video ($P < .05$).

DISCUSSION

Oncologists are aware that some oncology terminology may be difficult for low-literacy populations to understand, but even basic terms such as *cancer* and *chemotherapy* are frequently misunderstood. Our study provides a list of commonly misunderstood terms that an oncologist cannot assume will be grasped by patients without careful explanation.

The examples of incorrect definitions highlight the extent of misunderstanding. If an oncologist explains to a patient that a biopsy is needed to determine future treatment, the patient may think she will be receiving a new medication or an ultrasound examination. If a patient is told that some of the side effects of the chemotherapy are fatigue, numbness, and nausea, he may think he will be weak, cold, and light-headed. Words that sound the same can also be easily confused (eg, *transfusion* and *infusion*).

Although a current concern is that precision medicines will not be understood due to genetic illiteracy and misunderstandings about the immune system,^{28,29} it is important to remember that the terminology used to describe chemotherapy, the backbone of many cancer treatments, may also be incomprehensible to some patients. Many cancer patients feel like television journalist Tom Brokaw, who, while being treated for myeloma, quipped: “Most patients enter a doctor’s office or hospital as if it were a Mayan temple, representing an ancient and mysterious culture with no language in common with the visitor.”³⁰ Only 26% of the patients who were part of the cohort establishing the word bank could correctly define *cancer*, and only 8% of the video testing group could define it. The term *palliative*, a key concept, was also frequently misunderstood; only 4% of patients understood it in step 2, and no patients understood it before watching the video in step 3. Several patients identified *cancer* as a word that might be difficult to understand, but no provider did.

Our video pilot test suggests that multimedia can help patients understand chemotherapy terminology. For each term, there was at least a 20% increase in patient understanding after watching the video. None of the patients could define *palliative chemotherapy* before watching the video, but 72% were able to provide a definition afterward. The term most patients understood after watching the video was *curative treatment*, with an improvement from 34% to 88% being able to define the phrase. Two terms, *chemotherapy* and *risk of infection*, did not show improvement in understanding for certain subgroups. The lack of statistical significance is partly explained by the low numbers in these subgroups.

The 1-minute video format can be easily integrated into a clinical setting. For example, the 6 videos we created for this study can be shown in hospital waiting rooms or viewed on personal electronic devices by patients and caregivers, either in a clinic or at home (they are available on YouTube at <https://www.youtube.com/playlist?list=PLTtwVKa4Pr03vPUO-YNjKciYPYQ6kTmmY>).

This study has some limitations. First, videos were tested for only 6 terms, and it may be difficult to improve understanding of other terms. In addition, the entire study was

conducted at a single underserved hospital, which limits generalizability, although low health literacy is common and thus will be observed even among patients seen at tertiary referral centers.^{31,32} Importantly, education of physicians about the severe patient lack of understanding of basic cancer terminology and methods to improve understanding would also be most helpful.

In conclusion, our study establishes that basic chemotherapy terminology is widely misunderstood by an underserved population, but that video-based education can significantly increase patient understanding. Our results corroborate previous findings of short videos that have improved patient understanding of such terminology.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Development of Word Bank and Videos

Figure 1.
Diagram of the steps conducted during the study.

adjuvant, allergic reaction, antibiotics, biopsy, blood count, cancer, chemotherapy, concurrent, curable/curative, cycles, diagnosis, edema, fatigue, fever, hair loss, immune system, inflammation, infusion, IV vs. oral, lesion, low blood count, lymph node, maintenance, medication, metastatic, nausea, neoadjuvant, neuropathy/numbness, neutropenia, organ dysfunction, palliative, port, pre-operative, prognosis, progression, radiation, regimen, remission, risk of fever, risk of infection, second line, side effects, stage, standard of care, surgery, systemic, toxicity, transfusion, transplant and treatment.

(Green: Words that providers judge important to understand; Yellow: Words that patients would like to better understand; Purple: Words chosen by both.)

Figure 2.
Pictogram of difficult-to-understand words.

TABLE 1.

Patient Demographics

Demographic	Step 1: Identify Words			Step 2: Test Word Misunderstanding, n = 50	Step 3: Pilot Test (6 Videos), n = 50
	Recently Consented to Chemotherapy, n = 20	Already Receiving Chemotherapy, n = 30			
Mean age, y	51.85	54.27	53.48		57.89
Sex					
Female	13 (65)	16 (53)	34 (68)		32 (64)
Male	6 (30)	14 (47)	16 (32)		18 (36)
Missing data	1 (5)	0 (0)	0 (0)		0 (0)
Race/Ethnicity					
African American	16 (80)	25 (83)	47 (94)		46 (92)
White	3 (15)	3 (10)	1 (2)		2 (4)
Other	1 (5)	2 (7)	2 (4)		2 (4)
Employment					
Full-time	1 (5)	1 (3)	2 (4)		1 (2)
Part-time	3 (15)	0 (0)	7 (14)		1 (2)
Other	16 (80)	29 (97)	41 (82)		48 (96)
Income, US\$					
40,000	9 (45)	17 (57)	40 (80)		30 (60)
>40,000	0 (0)	3 (10)	5 (10)		3 (6)
Other	11 (55)	10 (33)	5 (10)		17 (34)
Education					
High school or less	12 (60)	18 (60)	33 (66)		29 (58)
Some college	7 (35)	11 (37)	14 (28)		20 (40)
College graduate	1 (5)	1 (3)	3 (6)		1 (2)
Computer ownership	–	–	26 (52)		6 (12)
REALM score average					
<3rd grade level	–	–	2 (4)		–
4th–6th grade level	–	–	8 (16)		–
7th–8th grade level	–	–	19 (38)		–
High school level	–	–	18 (36)		–

Demographic	Step 1: Identify Words			Step 3: Pilot Test (6 Videos), n = 50
	Recently Consented to Chemotherapy, n = 20	Already Receiving Chemotherapy, n = 30	Step 2: Test Word Misunderstanding, n = 50	
Did not answer	—	—	3 (6)	
Numeracy score				
0 correct	—	—	19 (38)	—
1 correct	—	—	18 (36)	—
2 correct	—	—	8 (16)	—
3 correct	—	—	2 (4)	—
Missing data	—	—	3 (6)	—

Abbreviation: REALM, Rapid Estimate of Adult Literacy.
All values are presented as n (%) unless specified otherwise.

TABLE 2.

Frequency of Misunderstanding of 20 Terms in the Chemotherapy Word Bank

Term	Frequency of Misunderstanding, % (95% CI)
Maintenance	98.0 (0.894–0.999)
Palliative	96.0 (0.863–0.995)
Toxicity	86.0 (0.733–0.942)
Curative	80.0 (0.782–0.967)
Cancer	74.0 (0.597–0.854)
Radiation	70.0 (0.554–0.821)
Blood count	62.0 (0.472–0.753)
Risk of infection	60.0 (0.452–0.736)
Chemotherapy	58.0 (0.432–0.718)
Cycle	56.0 (0.413–0.7)
Infusion	54.0 (0.393–0.682)
Transfusion	50.0 (0.355–0.645)
Biopsy	48.0 (0.337–0.626)
Transplant	40.0 (0.264–0.548)
Stage	38.0 (0.247–0.528)
Side effects	26.0 (0.146–0.403)
Fatigue	22.0 (0.115–0.36)
Numbness	20.0 (0.1–0.337)
Port	14.0 (0.058–0.267)
Nausea	12.0 (0.045–0.243)

Abbreviation: CI, confidence interval.

TABLE 3.**Examples of Incorrect Definitions of Terms**

Term	Definitions^a
Maintenance	Your diet. Your checkups and doctor appointments. Maintaining the drug. The reminder to keep clean. Doing what the doctor tells you. Changing medicine. To keep alive. To maintain the cancer and appointments like a “work order”
Palliative	Pain. Blood platelets. Hemoglobin. Your palate. Dealing with the situation
Curative	(All misunderstandings were based on the response that the patient had never heard the word before)
Toxicity	It’s taking the toxins out of your body. Cancer cells are toxic. Waste
Cancer	Something to do with the blood cells. Death. A disease that can’t be cured that will kill you. Something that’s eating up the blood cells. It’s like a sore or a virus. Bad disease that nobody knows where it comes from
Radiation	To “cook” the cancer. It burns the skin real bad. To microwave the cancer. Heat treatment. Pain management tool. When you get in a machine to see if anything has spread. Another version of chemotherapy
Blood count	The measure to see if blood pressure is up or down. A blood count is taken because chemo kills blood cells. A test to see the stages that my cancer is in
Risk of infection	Something I take pills for. They said don’t drink and smoke. Reactions to the medication. A scratch that might not heal. Bilirubin in your stomach
Chemotherapy	A treatment to make the body stronger. Visiting the doctor. Pain management. A treatment that flushes away the bad cells. Putting toxins in to bring out impurities. A treatment I will have for the rest of my life. A treatment that gets the big masses, while radiation small masses. Doctor visits and medication. Medications to manage the pain
Cycles	Menstrual cycles. The times I feel good or the times I feel bad. When everything is cold and hands tingle. Upset stomach
Infusion	When you get your chemotherapy. Mending two things together. Pain management. The place where cancer is treated. Taking blood from one to the other. Same as radiation but slower
Transfusion	Taking something out to put something in. Recycling your blood. Where the chemo comes in through the needle and into my vein. A transfusion is when you get chemotherapy
Biopsy	Something that you take like a medicine. Observing. A cut. A machine. A surgery to take the cancer out. Ultrasound
Transplant	Replant. When they take something out of you and put it back in
Stages	Changing to different things. There are 4 stages, but I don’t know what they mean
Side effects	Describing your condition from good to bad. When the medicine is too strong you get these
Fatigue	Feeling weak. Not being able to be comfortable or relax
Numbness	Feeling cold. When you are sick
Port	I have one
Nausea	Light-headed, weak. Sleepy. Drowsy. Diarrhea

^aEach word, phrase, or statement followed by a period was made by a different participant.

TABLE 4.

Video Assessment: Before and After Rate of Correct Definition

Term	Rate (95% CI)		<i>P</i> ^a
	Before	After	
Cancer	0.08 (0.02–0.19)	0.58 (0.43–0.72)	<.001
Chemotherapy	0.60 (0.45–0.74)	0.82 (0.69–0.91)	.001
Palliative chemotherapy	0.00 (0.00–0.07)	0.72 (0.56–0.84)	NA ^b
Curative treatment	0.34 (0.21–0.49)	0.88 (0.76–0.95)	<.001
Blood count	0.22 (0.12–0.36)	0.74 (0.60–0.85)	<.001
Risk of infection	0.32 (0.20–0.47)	0.70 (0.55–0.82)	<.001

Abbreviations: CI, confidence interval; NA, not available.

^aMcNemar's test.^bPaired rates could not be compared because none of the patients initially gave a correct definition for this term.